AN ANALYTICAL STUDY OF THE EXAMINATION SYSTEMS AT HIGHER EDUCATION LEVEL IN WEST BENGAL

A THESIS SUBMITTED TO THE UNIVERSITY OF KALYANI FOR THE FULFILMENT OF DEGREE OF DOCTOR OF PHILOSOPHY IN EDUCATION

By

MANISHANKAR ROY

DEPARTMENT OF EDUCATION

UNIVERSITY OF KALYANI

KALYANI, NADIA

WEST BENGAL

INDIA

2012


Dedicated
to
My Parents
Wife
Daughter & Son

Dr. Dibyendu Bhattacharyya
Associate Professor
Department of Education, University of Kalyani
Kalyani, Nadia

CERTIFICATE

This is to certify that the research work entitled in : "**An Analytical Study of the Examination Systems at Higher Education Level in West Bengal**" by Sri Manishankar Roy for the fulfillment of the requirements of the award of Ph. D. Degree in Education under the Department of Education, University of Kalyani is based on the results of research work accomplished by him. No part of this theses has been submitted for any other degree. He has completed the research work under my guidance.

Date : 28/07/2012

Dibyendu Bhattacharyya

Dr. Dibyendu Bhattacharyya
Associate Professor,
Department of Education,
University of Kalyani

ACKNOWLEDGEMENT

The researcher takes this opportunity to express his deep gratitude to his supervisor, Dr. Dibyendu Bhattacharyya, Associate Professor, Department of Education, University of Kalyani for stimulating discussions, valuable guidance and also for his cooperation mixed with inspiration, without which it would not have been possible for him to finish the thesis in the present form.

It is a great pleasure on the part of the researcher to convey strong gratefulness to Professor Krishna Banerjee, Dean, Faculty of Education, University of Kalyani, for giving her kind permission to submit the thesis to the University of Kalyani.

The researcher is indebted to Shri Ajoy Kumar Mukherjee (Principal), other colleagues and the authorities of Barrackpore Rastraguru Surendranath College for granting study leave to complete the thesis.

The researcher particularly wants to thank his wife Smt. Doly Roy, daughter Swarnali and son Swarnaprabho. They endured many days of him being in the library and the endless hours on the computer with patience and understanding. His family provided the love, the help and the fulfilment required for him to keep going and enabling him to put this project into its proper perspective. They helped him in ways that are too numerous to mention.

The researcher also wants to convey sincere thanks to Shri Supriyo Roy of M/s. Tendercare Computers, B-5/133, Kalyani for Computer Typing and Xerox meticulously.

The researcher is also indebted and grateful to other concerned persons for their co-operation and precious suggestions which made the investigation considerably easy and effective.

Thank you all.

Dated : 28.02.2012
Kalyani, West Bengal

Manishankar Roy
(Manishankar Roy)

CONTENTS

	Page No.
CHAPTER – I : EXAMINATION SYSTEM AND CURRICULUM FRAMEWORK IN HIGHER EDUCATION	**1 – 59**
1.1 Introduction	1
1.2 National Knowledge Commission Note on Higher Education (2006)	2
1.3 Perspectives of Higher Education	3
1.3.1 Reforms in the Curriculum and Examination System	3
1.3.2 Use of Information and Communication Technology	4
1.3.3 English Language Teaching	4
1.4 Committee on Examinations, 1970	4
1.5 Examination Committee, 1957	7
1.6 Examination System in Higher Education : Some Aspects of Lower Grade and Studies can Communicate Successfully in Higher Education. Secondary Education Commission, 1952 – 53	8
1.7 Curriculum Studies and Examination System	15
1.8 Curriculum Studies / Analysis Questions and to be answered through Examination System through NCF 2005	16
1.9 Common Elements of a Framework of Examination System	17
1.10 National Curriculum Framework – 2005 by NCERT and Conceptual Guidelines of Examination Systems Accepted by UGC and NCTE	19
1.11 Quality Dimension and Examination System focused at 12^{th} Five Year Plan	25
1.12 The Social Context of Examination Systems : Equity Pedagogy	26
1.13 Envisioned Aims of Education in the New Curriculum	27
1.14 Learning and Knowledge – Curriculum	29
1.15 Knowledge and Understanding : Basic Capabilities of Learners	33
1.16 Forms of Understanding	34
1.17 Children's Knowledge and Local Knowledge	36
1.18 School Knowledge and the Community	37

Page No.

1.19 Curricular Areas and Assessment 37

1.20 The Proposed Epistemological Frame 40

1.21 Planning the Curriculum 41

1.22 Main Menu of Classroom Environment 42

1.23 Presents Systematic Reforms of the Existing Curriculum and Examination Systems 43

1.24 Assessment and Teacher Education Curriculum 45

1.25 UGC Curriculum Framework 46

1.26 Productive and Outcome – Based Approaches 47

1.27 UGC's Motives 48

1.28 Examination Reforms suggested by Education Commission (1964-66) 50

1.29 The Committee on Examination (1970) 51

1.30 International Commission on Education (1972) 51

1.31 Research on Examinations-A Retrospective and Prospect by Pritam Singh in Collaboration with Dr. R.G. Misra : A Theme Paper in a Seminar arranged by NCERT 52

1.32 Setting of Question Papers – A NCERT Seminar Paper by V. Natarajan 55

1.33 Non-Scholastic Aims and Objectives and Evaluation Thereof : Method of Education – A Seminar Paper by V. N. Abhayankar in a NCERT seminar 55

1.34 A Brief Note on the Scope of Public Examination – A Seminar Paper presented by Krishan Chand Jain in a NCERT Seminar 56

1.35 Objectives of the Study 57

1.36 Need and Significance of the Study 58

1.37 Delimitation of the Study 58

	Page No.
CHAPTER – II : REVIEW OF RELATED STUDIES	**60 – 90**
2.1 Introduction	60
2.2 Background Information of Examination System and Reforms	62
2.3 Exam Reform : Why is it needed ?	63
2.4 Exit versus Entrance Exams	64
2.5 The Long-Term Vision for Exam Reform	65
2.6 The Learning Imperatives of the New Knowledge Societies	66
2.7 Beyond Producing Clerks – Exams and Social Justice	70
2.8 What do we suggest for Test ?	73
2.9 One Size Does Not Fit All : The Need for Flexibility	75
2.10 Institution Based Assessment	75
2.11 Reduction of Exam Stress and Anxiety	75
2.12 Exam Management	79
2.13 Pre-Exam	80
2.14 Conduct of Examinations	82
2.15 Transparency and Honesty in Mark / Grade Reporting	83
2.16 Examination Reforms suggested by the University Education Commission (1948 – 49)	88
2.17 Examination reforms suggested by the Secondary Education Commission (1952 – 53)	89
2.18 The Operational Steps in the Management of Public Examinations in India a the School Stage – A Theme Paper presented in a NCERT Seminar	90
CHAPTER – III : METHODOLOGY (1) – GRAPHICAL ANALYSIS	**91 –136**
3.1 Introduction	91
3.2 Methods and Tools of the Study	92
3.3 Development of the Tool	93
3.4 Conclusion from Graphical Analysis	94

Page No.

3.5 Standardization of Test Items 94

3.6 Analyses and Interpretation 97

3.6.1 Graphical Representation of Different Statements 97

3.6.2 Graphical Representation of Different Dimensions 123

3.7 Analysis of the Graphs representing the Statements 128

3.8 Analysis of the Graphs representing the Dimensions 135

CHAPTER–IV : METHODOLOGY(2) : ANALYSIS & INTERPRETATION FROM NON-PARAMETRIC STATISTICS (CHI-SQUARE TESTING) **137–160**

4.1 Methodology 137

4.2 Tools Used No. 2 137

4.3 Standardization 137

4.4 Reliability 137

4.5 Validity 137

4.6 Population 137

4.7 Sample 138

4.8 Sample Size 138

4.9 Rationale for Non-parametric Statistics 138

4.10 Calculation and Interpretation 138

CHAPTER – V : SUMMARY AND CONCLUSION **161–185**

5.1 Introduction 161

5.2 Background Study 162

5.3 The Committee on Examination (1970) 163

5.4 International Commission on Education (1972) 163

5.5 Setting of Question Papers –A NCERT Seminar Paper by V. Natarajan 167

5.6 Non-Scholastic Aims and Objectives and Evaluation Thereof : Method of Education – A Seminar Paper by V. N. Abhayankar in a NCERT Seminar 168

Page No.

5.7 A Brief Note on the Scope of Public Examination – A Seminar Paper presented by Krishan Chand Jain in a NCERT Seminar 169

5.8 Objectives of the Study 170

5.9 Tools 171

5.10 Population 171

5.11 Sample 171

5.12 Findings from Questionnaire No. 1 171

5.13 Findings from Questionnaire No. 2 178

5.14 Conclusion 185

BIBLIOGRAPHY **186 – 196**

APPENDIX – I : QUESTIONNAIRE – I (FOR GRAPHICAL ANALYSIS) **197 – 200**

APPENDIX – II : QUESTIONNAIRE – 2 (FOR CHI-SQUARE TEST) **201 – 204**

APPENDIX – III : GRAPHICAL REPRESENTATION OF DIFFERENT DIMENSIONS **205**

LIST OF TABLES

Table No.	Particulars	Page No.
1	Examination system improves the teaching-learning process	138
2	Examination system gives feedback to the teachers for their improvement	139
3	Achievement encourages to guess paper, supporting material, notes instead of valuing the subjects	139
4	Existing examination system just labels the pass and fail and not to follow the objectives	140
5	Examination focuses on academic load instead of giving true knowledge	140
6	Achievement promotes for getting more marks avoiding any kinds of objectives reflecting through values	141
7	Examination system should be integrated	141
8	Secrecy arrangements about papers are ineffective and sometimes not properly valued	142
9	Vocational ability is also an important dimension for attaining conceptual ability in an examination system	142
10	Examination systems are not related to professional development	143
11	Curriculum do not satisfy the whole objectives leading to examination system	143
12	Development of memorization rather than perception is the key factor for attaining success in examination system	144
13	Weaknesses of teachers are also measured more effectively by observing their professional attitude in a output based examination system	144

Table No.	Particulars	Page No.
14	Examination system mode is more reliable and valid with reference to content and fulfillment of objectives	145
15	Education system follows the institutional objectives effectively	145
16	Examination system fosters quality of life among the students and teachers	146
17	Instructional procedure is given only by lecture method to fulfil the objectives reflected in examination system	146
18	Teachers are influenced in traditional system, rather to improve the all round development of learners	147
19	Some teachers may not cover the prescribed syllabus and just teach limited parts which are asked in examination	147
20	Value based education promotes healthy atmosphere in the examination system	148
21	Only cognitive domain is measured and the rest of personality traits of students are not judged through the academic achievement	148
22	Examination system is time consuming mode and from starting to announcement of result it takes much time	149
23	Achievement mode is expensive in conducting and marking based on person concerned	149
24	Verbal communication and project methods are effective criteria for examination system	150
25	Examination system should be given more importance on achieving objectives	150
26	Broader area of subject matter can be covered for developing skills in achievement	151
27	Examination system should be activity centric	151

Table No.	Particulars	Page No.
28	Academic Achievement measures just cognitive domains in higher education	152
29	Research system in higher education is rather obtaining degrees than skills in higher education	152
30	Only semesterisation cannot improve the system	153
31	Curriculum is note based rather than creative approach is being nurtured	153
32	Class hours are not well organized in a semester system	154
33	Examination system should based on continuity in higher education	154
34	Examination system is teacher centric and not democratic	155
35	Examination measures the cognitive, affective and psychomotor domains of the students	155
36	No systemic credit hours are followed	156
37	Examination gives feedback to the students for their promotion	156
38	Examination helps for attaining skills in a particular subject area	157
39	Examination system is not always objective based	157
40	Examination system is summative based	158
41	Examination system promotes the unfair means for becoming successful	158
42	Examination discourages the studious students	159
43	Effective Examination System is the way for attaining goals of education	159
44	Objectives and examination systems are highly related	160

CHAPTER – I

EXAMINATION SYSTEM AND CURRICULUM FRAMEWORK IN HIGHER EDUCATION

CHAPTER – I

EXAMINATION SYSTEM AND CURRICULUM FRAMEWORK IN HIGHER EDUCATION

1.1 Introduction

Examination system in higher education has been defined in numerous ways. The first set of Examination System build a framework with the application of curriculum knowledge and data through examination policies & practices. Objectives of Examination systems in higher education should be judged successfully through educational output of the learners.

Secondly, from the perspective of examination model some other features appear as usually descriptive, explaining a process or prescriptive, a set of procedures or a sequence of steps about how to do something. Examination systems accommodate different purposes and uses. There are models for thinking about examination matters in a particular way. Others are guides for doing particular types of work, such as reaching a consensus on the goals or purposes should serve.

The nature of examinations at universities in India mostly based on teaching-learning process because they are selective in nature. There is an acute need to reform this examination system so that it tests understanding rather than memory and should be related to continuous assessment methodology. Analytical abilities and creative thinking should be at a premium- learning by rote should be at a guided properly. Such reform would become more feasible with decentralized examination and smaller universities in proper contextualization. But assessment cannot and should not be based on examinations alone. There is a clear need for continuous internal assessment which empowers teachers and students alike, just as it breathes life back into the teaching learning process. Such internal assessment would also foster the analytical and creative abilities of students in higher education.

1.2 National Knowledge Commission Note on Higher Education (2006)

Examinations to begin with, internal assessment could have a weight of 25 percent in the total but this should be raised to 50 percent over time.

Course Credits : The present system is characterized by too much rigidity and too few choices for students. Universities that are smaller, or run semester-based systems, are obviously more flexible. Even in large universities, however, it is necessary to introduce greater diversity and more flexibility in course structures. This would be the beginning of a transition to a course credit system, where degrees are granted on the basis of completing a requisite number of credits from different courses. Every student should be required to earn a minimum number of credits in his/ her chosen discipline but should have the freedom to earn the rest from courses in other disciplines. It is essential to provide students with choices instead of keeping them captive.

Research : We attempted to create stand-alone research institutions, pampered with resources, in the belief that research should be moved out of universities. In the process, we forgot an essential principle. There are synergies between teaching and research that enrich each other. And it is universities which are the natural home for research. What is more, for universities, research is essential in the pursuit of academic excellence. It is time to reverse what happened in the past and make universities the hub of research once again. This would need changes in resource-allocation, reward-systems and mindsets. Substantial grants should be allocated for research. The provisions of these grants should be competitive and the criteria for these grants should be different from the usual criteria for non-plan and plan grants.

Faculty : There must be a conscious effort to attract and retain talented faculty members. This is necessary because talented students who are potential faculty

members have choices that are far more attractive in other professions in India or in the academic profession outside India. It is necessary to provide working conditions in the form of office space and research support combined with housing. But it may not be sufficient.

This must be combined with some incentives and rewards for performance. There is, however, another dimension to the problem. Universities do not always choose the best in part because of native-son / daughter policies which leave them to select their own former students. in universities. Therefore, cross-pollination between universities should be encouraged. It may be worth introducing a ceiling, say one-half or even one-third, on the proportion of faculty members than can be hired from within the university. This would almost certainly engender greater competition and more transparency in faculty appointments.

Finances : There is a serious resource crunch in universities which leaves them with little financial flexibility. In general, about 75 per cent of maintenance expenditure is on salaries and pensions. Of the remaining 25 per cent, at least 15 per cent is absorbed by pre-emptive claims such as rents, electricity, telephones and examinations. The balance, less than 10 per cent, is not even enough for maintenance let alone development. Laboratories and libraries languish while buildings crumble. But that is not all. In most universities, plan (investment) expenditure is less than 5 percent of non-plan (maintenance) expenditure. Such a small proportion of investment in total expenditure

1.3 Perspectives of Higher Education

1.3.1 Reforms in the Curriculum and Examination System

Curriculum reform remains a critically important issue in almost all schools. School education must be made more relevant to the lives of children. There is need to move away from rote-learning to understanding concepts,

developing good comprehension and communication skills and learning how to access knowledge independently. This also requires substantial changes in the examination.

1.3.2 Use of Information and Communication Technology

Wherever feasible, ICT should be made more accessible to teachers, students and administration for learning, training, research, administration, management, monitoring, etc. This requires the provision of more facilities such as computers as well as connectivity and broadband facilities.

Computer-aided learning also requires training of teachers and other staff in order to make the best use of the technology.

1.3.3 English Language Teaching

Proficiency in English is widely perceived as an important avenue for employment and upward mobility, which also greatly facilitates the pursuit of higher education. The incorporation of English into the curriculum through the teaching of English as a language in Class I and teaching of one other subject in English medium in later classes requires making pedagogical changes to contextualize language learning, increasing the availability of English language teachers and providing more bilingual and supplementary teaching materials. At the same time, mutlilinguality must be promoted and language issues must be explicitly taken on board in designing school curricula and methods of pedagogy.

1.4 Committee on Examinations, 1970

(Report : New Delhi, National Council of Educational Research and Training, 1971, Summary of Recommendations)

1. Legislation : The State and Central Governments shcuild immediately take suitable measures to get amending legislation passed in the relevant laws pertaining to the following matters :

a) Empowering the Board / University to grant autonomous status to well established institutions.
b) Empowering the examining authorities to check students and prohibit those with weapons from entering the examination halls.
c) Making the assembly of persons within a certain distance from an examination hall a cognizable offence.
d) Making the indulgence in malpractices by employees and authorities of the universities / boards a cognizable offence.
e) Empowering the examining authorities to take out insurance for the invigilators and examiners.
f) Making the assault on an examiner or an invigilator or other person connected with examination, a cognizable offence.

2. Conduct of Examination

a) Paper-setters should be appointed at least six months prior to the commencement of a Public Examination and they should be given at least eight weeks to draft questions. The papers should be finalised at a meeting of the paper-setters.
b) Where the number of candidates in Public Examination is very large, there should be decentralisation with separate examination for each group of 10,000 school students or 1,000 college students.
c) A Public Examination should be conducted in the institution in which the students study. The majority of the invigilators and superintendents should be drawn from the institution concerned.
d) Admission to the centre of a Public Examination should be through one main entrance. Only bonafide candidates with identity cards should be admitted in the examination centre after thorough checking.
e) Model answers should always be prepared and supplied by the paper-setters.

f) Copies of the question papers set should be made available to the teachers in the schools and colleges on the day of the examination but after it is over, so that the teachers could comment on the paper to the authorities quickly.

g) The method of spot evaluation at a central place to which all the examiners are called, should be adopted.

h) The result should be declared subject-wise and furnished in the form of grades. The 'raw' marks given on the candidates passing in the minimum number of subjects.

i) The certificate issues by an examining authority should have two columns, viz. one giving the result of Public Examination and the other giving the result of the internal assessment by the teachers.

j) For the awarding of prizes and scholarships to a candidate who stands first in an examination or in a subject, a separate test should be conducted and admission to the same limited to those who secure the highest grade in the Public Examination.

k) There should not be too many Public Examinations. There should be one at the end of the upper primary / middle school stage, another at the end of the secondary stage and the third at the first degree stage. All others should be internal assessments only.

3. Use of Examination Results

a) A recruitment to the services should be made on the basis of tests / examinations conduced by the Public Service Commissions and the maximum age for appointment for clerical posts be reduced to 19 years.

b) Admission to colleges including professional colleges should be on the basis of an entrance test conducted specifically for assessing the aptitude of a student for a particular course. Eligibility to appear at these tests should alone be determined by the results of the Public Examination.

4. Budgeting for Education

In future, both the Central and State Governments should make funds separately for guidance and studies and research on examinations.

5. Research

There should be continued study and research on examinations, both at the State and Central levels and in the boards / universities in a coordinated manner. Necessary funds for the same should be provided on a priority basis.

6. Novel Ideas

Novel ideas for the organisation and conduct of Public Examinations should be encouraged.

1.5 Examination Committee, 1957

(Report : New Delhi, U. G. C)

Summary of Recommendations

1. No reform in the system of examinations will reduce the failure rate in our universities and colleges, unless the prevailing admission procedures are improved. We have therefore, to see that only those candidates are admitted to universities who can profit by higher education. One of the feasible ways by which this could be done is to introduce in the School Leaving Examination two additional papers, one to test competence in the use of the language of the university and one to test intellectual maturity, for those who wish to enter the university.

2. Teaching work should be done not only through lectures but through tutorials, seminars, etc. It will be desirable to hold periodical short tests on the work done in the tutorials and to maintain a record of the assessments made. This should be regularly evaluated. Each university may decide what weightage should be given to this. In order to make room for tutorials, lectures may be cut down (it should be possible to reduce them by 50 per cent) and the teaching work divided between tutorials and lectures.

3. The U. G. C. should encourage seminars, discussions and conferences of university and college teachers for defining the objectives of teaching and examinations in different subjects at various levels. A clear conception of the aims of teaching will facilitate good teaching and bring about a greater conformity between examinations and teaching.

4. Research should be undertaken in regard to both the educational and technical aspects of examinations. Topics which may be taken up for research in this connection are indicated in the report. It should be possible for the departments of education in universities to undertake such work as a part of their normal activities. Perhaps the newly created National Council of Educational Research and Training would also be able to assist in this. There should be arrangement in the University Grants Commission to coordinate the research work of the different universities and to disseminate information and conclusions with regard to the studies undertaken.

1.6 Examination System in Higher Education : Some Aspects of Lower Grade and Studies can Communicate Successfully in Higher Education. Secondary Education Commission, 1952 – 53

(Report : Madras, India, Ministry of Education, 1953)

Terms of Reference

Under the terms of reference, the Government was asked :

A. To suggest measures for its reorganization and improvement with particular reference to :

i) The aims, organization and content of secondary education;

ii) Its relationship to primary, basic and higher education;

iii) The inter-relation of secondary schools of different types and

iv) Other allied problems.

Summary of Recommendations

1. Aims and Objectives of Secondary Education

The Commission have said in their report : "As political, social and economic conditions change and new problems arise, it becomes necessary to re-examine carefully and study clearly the objectives which education at each stage should keep in view. Moreover, this statement must take into account not only the facts of the existing situation but also the direction of its development and the nature and type of the social order that we envisage for the future to which education has to be geared".

In the Commission's opinion, the most outstanding and educationally relevant facts in the Indian situation were :

1) The adoption of the goals of democracy and socialism necessitating the development among the people of a broad, national and secular outlook;
2) The extreme poverty of the country and urgency for promoting its economic growth; and
3) The absence of educational facilities needed for developing all aspects of the human personality and the neglect of cultural pursuits and activities.

On the basis of this analysis, the Commission recommended that secondary education should be reoriented to the following aims and objects :

(a) Development of qualities essential for creative citizenship :

This includes the development in the students of secondary schools of those habits, attitudes and qualities of character which are essential for creative citizenship in a democratic society. Among these qualities, which are to be fostered through curricular and co-curricular activities in secondary schools, are :

i) The capacity for clear thinking (allied which is the capacity for clearness in speech and writing);
ii) The scientific attitude of mind;

iii) A receptivity to new ideas;

iv) A respect for the dignity and worth of every individual;

v) The ability to live harmoniously with one's fellowmen through the cultivation of discipline, cooperation, social sensitiveness tolerance; and

vi) A sense of true patriotism.

(b) The promotion of vocational efficiency :

This involves not only the creation of a new attitude to work and an appreciation of the dignity of manual labour but also the development of the students' technical skill and efficiency through greater emphasis on craft and productive work and the diversification of courses at the secondary stage.

(c) Development of personality :

This implies cultivation of the students' literary, artistic and cultural interests for a fuller development of their personalities. This means the provision of subjects like art, craft, music, dancing and hobbies in the secondary school curricula.

(d) The training for leadership :

The training of persons who, on completion of the Secondary stage, would be able to assume the responsibilities of leadership at the intermediate level.

2. Methods of Teaching

(a) Inculcation of values, attitudes and work habits :

The methods of teaching in schools should aim not merely at the imparting of knowledge in an efficient manner, but also at inculcating desirable values and proper attitudes and habits of work in the students.

They should, in particular, endeavour to create in the students a genuine attachment to work and a desire to do it as efficiently, honestly and thoroughly as possible.

(b) Activity and project methods :

The emphasis in teaching should shift from verbalism and memorization to learning through purposeful, concrete and realistic situations and, for this purpose, the Principles of Activity Method and Project Method should be assimilated in school practice.

Teaching methods should provide opportunities for students to learn actively and to apply practically the knowledge that they have acquired in the classroom. Expression Work of different kinds must, therefore, form part of the programme in every school subject.

(c) Emphasis on clear thinking and expression :

In the teaching of all subjects special stress should be placed on clear thinking and clear expression both in speech and writing.

(d) Training pupils in techniques of study :

Teaching methods should aim less at imparting the maximum quantum of Knowledge possible, and more on training students in the techniques of study and methods of acquiring knowledge through personal effort and initiative.

(e) Instruction to suit different student abilities :

Attempt should be made to adopt methods of instruction to the needs of individual students as much as possible so that dull, average and bright students may all have a chance to progress at their own pace.

(f) Group projects and activities :

Students should be given an adequate opportunity to work in groups and to carry out group projects and activities so as to develop in them the qualities necessary for group life and cooperative work.

3. Examinations and Evaluation

Reviewing the defects of examinations at the Secondary stage, the Education Commission said : "The examinations today dictate the curriculum instead of following it, prevent any experimentation, hamper the proper treatment of subjects and sound methods of teaching, foster a dull uniformity rather than originality, encourage the average pupil to concentrate too rigidly upon too narrow a field and thus help him to develop wrong values in education. Pupils assess education in terms of success in examinations. Teachers, recognizing the importance of the external examination to the individual pupils, are constrained to relate their teaching to an examination which can test only a narrow field of the pupil's interests and capacities and so inevitably neglect the qualities which are more important though less tangible".

(a) External examination – introduction of objective type tests :

The number of external examinations should be reduced and the element of subjectivity in the essay type tests should be minimized by introducing objective tests and also by changing the type of questions.

(b) School records for assessment of all-round progress :

In order to find out the pupil's all-round progress and to determine his future, a proper system of school records should be maintained for every pupil indicating the work done by him from time to time and his attainments in the different spheres.

(c) In the final assessment of the pupils : Due credit should be given to the internal tests and the school records of the pupils.

(d) Symbolic marking to replace numerical marking :

The system of symbolic rather than numerical marking should be adopted for evaluating and trading the work of the pupils in external examinations and in maintaining the school records.

(e) One public examination – final comprehensive certificate :

There should be only one public examination at the completion of the secondary school course.

(f) The Certificate awarded should contain, besides the results of the public examination in different subjects, the results of the school tests in subjects not included in the public examination as well as the gift of the school records.

(g) The system of compartmental examinations should be introduced at the final public examination.

(h) Board of secondary education to be set up :

There should be a Board of Secondary Education consisting of not more than 25 members with the Director of Education as its chairman to deal with all matters of education at the Secondary stage and to lay down general policies. A Sub-committee of the Board should deal with the conduct of examinations.

4. Buildings and Equipment

(a) School buildings – space per pupil :

Normally, in designing buildings for schools, care should be taken to see that an area of not less than 10 sq. ft. is provided per student in the classroom.

(b) Optimum strength of class and school :

The optimum number of boys to be admitted to any class should be 30 and the maximum should not in any case exceed 40; the optimum number in the whole school should be 500 while the maximum should not exceed 750.

(c) Research required on school buildings, furniture and equipment :

In the type design of schools as well as the furniture, etc., research should be carried on to improve functional efficiency and to adjust them to Indian conditions.

An expert committee should be appointed to lay down carefully the amount and the kind of equipment required for various types of diversified courses and workshops.

(d) Land for educational purposes :

The State Governments and the Centre should, wherever possible, assign lands to schools for playgrounds, buildings or agricultural farms and other necessary purposes without any charge.

(e) Exemption from customs duty for equipment and books :

In order to popularize progressive teaching methods and facilitate their introduction, "Experimental" and "Demonstration" schools should be established and given special encouragement where they exist, so that they may try out new methods freely without being fettered by too many departmental restrictions.

5. Teachers

(a) Guide material for teachers :

Suitable literature for the guidance and inspiration of teachers should be produced by the Education Departments of all States and either the office of the Director of Education or one of the training colleges should be adequately equipped for the purpose.

(b) Special committee to review the scales of pay :

A special committee should be set up to review the scales of pay of teachers of all grades and recommend such scales of pay that will meet in a fair and just manner the varying cost of living.

National Policy On Education 1979 suggests that "the present system of education must be reorganized is the light of Contemporary Indian realities and requirements".

1.7 Curriculum Studies and Examination System

Curriculum analysis or studies is necessary for selecting examination system and its direction for fulfilling the objectives of education by exercising curriculum. When selecting or adapting a curriculum for use in a particular classroom, school or school systems, it is important to determine whether or not it is appropriate for the examination system.

This determination is not limited to an analysis of such matters as the reading difficulty, the quality and accuracy of content, and the amount of additional training required for implementation. This scanning also requires the ability to determine the extent to which the assumptions underlying the curriculum are valid for the particular class remaining in the existing school set ups. These assumptions consist of tacit beliefs about the central purpose of education, about the intended audience (students, teachers, parents etc). and the way the people learn, about the teachers and the best ways to teach, about the subject matter and how it should be organized, and about the community and what it values; or about to what extent it will be feasible in the school setting for all types of learners of differing ability and cultural tools of learning.

An understanding of these sorts of beliefs is at the heart of reflective eclectism can be achieved through examination system. Uncovering these sorts of beliefs requires probing beneath the surface of the document of the curriculum framework, reading between lines and making inferences on the basis of scattered evidence and reflection realized through the output of the system.

Curriculum studies may be looked as one kind of content analysis of the curriculum documents and therefore, it will have to put into actions and steps required in content analysis as a kind of methodology of research.

1.8 Curriculum Studies / Analysis Questions and to be answered through Examination System through NCF 2005

1. How is the curriculum / curriculum framework documented ?

- On what documents and other resources will you base your study and analysis ?
- What limitations in document do you find ?

2. What situation resulted in the development of the curriculum ?

- To which social, political, or educational problems was the curriculum attempting to respond ?
- What planning elements dominated the curriculum development process ?
- What theory, or model is the pillar of development of the curriculum ?

3. What are the purposes and content of the curriculum ?

- At what does the curriculum express its purpose ?
- What educational goals, educational aims and educational objectives are emphasized and what are their relative priorities ?
- What learning objectives are included and emphasized in the curriculum ?
- What is the main nature of content organization in the curriculum ?
- What are the primary ways in which the curriculum represents the subject matters in the students ?

4. What assumptions underlie the curriculum approach to purpose or content ?

- What conceptions of learning, objectives, curriculum and teaching underlie the materials you are analyzing ?
- What aspects of a hidden curriculum are likely to accompany the conceptions and perspectives underlying the curriculum ?

5. How is the curriculum organized ?

- What organizational principles are employed ?
- What provision is made for micro-level vertical / or horizontal organization ?

6. What assumptions underlie the curriculum organization ?

- What epistemological assumptions underlie the curriculum's organization ?
- What psychological assumptions underlie the curriculum's organization ?
- What other assumptions underlie the curriculum's organization ?
- What assumptions underlie modifications of curriculum with respect to textbooks, media use, learning climate and teacher training ?

7. How shall the curriculum be implemented ?

- What are the temporal, physical, organizational and political – legal requirements of the curriculum ?
- What are the portable costs and benefits associated with the curriculum change / renewal ?
- To what extent will the curriculum be consistent with and appropriate for the teacher's attitudes, beliefs and competencies ?
- What values are embedded in the curriculum, and how well are these values likely to be suited to the curriculum ?

8. What is your judgment about the curriculum ?

- What are its strengths and weaknesses ?
- Of what dangers would you want to be careful if your implement it ?
- Of what changes would you want to be looked forward ?

1.9 Common Elements of a Framework of Examination System

A framework refers to a broad map of a system which presents the in precise way but does not generally explicitly the all ramifications of the learning tasks to be operated when it will be implemented in the real world of classroom

examination systems. Every curriculum framework blended with examination system is expected to exhibit some essential elements in the framework documentation.

1. Introduction – Current Context :

It provides a rationale of the curriculum framework.

2. Educational Policy :

It provides a conceptual support of the Governments policy on education, inclusion of ICT, meeting the challenges of global trends, development of skills, improving the universal literacy and to create a productive knowledge society.

3. Learning Objectives :

Describes what students know and be able to do when they complete their curricula. Outcomes should be expressed in different domains, including knowledge, understanding, skills, and competencies, values and attitudes.

4. Structure of the Education System :

Describes the school system within which the curriculum framework is to be applied :

- Number of schooling including compulsory schooling. Stages of schooling and their durations.
- Number of weeks in the school years and hours or teaching periods in the school week.

5. Structures of Curriculum Content, Learning Area and Subjects :

Describes the organization of content within the framework and the extent to which schools and students can make choices. The pattern of subjects or learning areas to be studied in each stage or cycle such as core, elective and optional subjects. A brief description of each subject or learning areas outlining the rationale for inclusion in the curriculum and the contribution to the achievement of learning outcomes.

6. Standard of Resources required for Implementation :

Teacher's qualification, Teaching load. Students-involvement and activities Materials-textbooks, computers, other equipment, facilities in classroom.

7. Teaching Methodology :

Description in the range of teaching approaches that might be employed in the implementation of the framework.

8. Assessing Student Achievement :

Describing the importance of assessing the extent to which students achieve the outcomes of each subject, and recommends types of assessment strategies such as written, oral, performance, and practical or dissertations.

1.10 National Curriculum Framework – 2005 by NCERT and Conceptual Guidelines of Examination Systems Accepted by UGC and NCTE

The National Curriculum Framework (NCF) 2005 is the official document formulated by a National Steering Committee with the advice of the Ministry of Human Resource Development under the administrative fold of NCERT. It is essentially a revised and renewal scheme for curriculum work after the publication of the National Curriculum for School Education – 2000 worked out by NCERT. It envisages re-looking the 2000 framework mainly in the light of the report, Learning Without Burden (1993) and the spirit expressed in *Civilization and Progress* written by Rabindranath Tagore. In this context of these development and decision, a National Steering Committee, chaired by Prof. Yash Pal, eminent educationist and 21 National Focus Groups was set up with area specific need analysis for planning and developing this national enterprise. This curriculum work has also taken reflective stimulations from other documents on education, such as NPE, 1986 and POA.

Effectively, the hidden forces that have contributed in framing the

NCF-2995 are 'creative spirit' and 'generous joy' of Tagore and reducing curriculum load of Prof. Yash Pal. Further, contemporary knowledge about the constructivism and also active participation in learning with full freedom and choice of the learners have also been the pointers to change in the school curriculum. Necessarily, the NCF has decided to take up fie guiding principles that explicitly express that the learner is at the heart of tne learning encounter and the real learning connects school and life in the real world and hence the learning connects school and life in the real world and hence the learner is the constructor of knowledge, not a merely memory worker.

The NCF–2005 has been documented and organized in five chapters, each focusing on each of the five broader dimensions of school education. It is actually an attempt at reviewing and renewal process. In fine, from the light of curriculum planning and design or renewal this document is an official venture with special emphasis to the principal directives envisioned in our Constitution. However, it has envisioned a cultural upliftment in the spirit of pluralism keeping in mind the social-cultural diversity of India in one hand and the pushes and pulls of globalization on the other hand.

The first implies the objectives to be attained and these should be derived form systematic studies of the learners, from studies of contemporary life in society and from analyses of the subject matter by specialists. Second, planners need to determine what educational experiences can be provided that is likely to attain these purposes. Third, the planners must find ways to effectively organize these educational experiences. The planners attempt to provide experiences that have a cumulative effect on students. Fourth, the planners need to determine whether the educational purposes are being attained (Posner, 1995).

For studying this national curriculum framework these four basic questions will be the analyst's navigational tool.

Then the planners have explicitly state the Guiding Principles of the National Curriculum Framework-2005 in the following statements.

We need to plan and pay attention to systemic matters that will enable us to implement many of the good ideas that have already been articulated in the past. Paramount among these are :

- Connecting knowledge to life outside the school,
- Ensuring that learning is shifted away from rote methods,
- Enriching the curriculum to provide for overall development of children rather than remain textbook centric,
- Making examinations more flexible and integrated with classroom life and,
- Nurturing an identity soaked in caring concerns within the democratic polity of the country.

In the present context there are new developments and concerns to which our curriculum must respond. The foremost among these is the importance of including and retaining all children in school, through a programme which reaffirms the value of each child and enables all children to experience dignity and the confidence to learn. Curriculum design must reflect the commitment to Universal Elementary Education (UEE), not only in representing cultural diversity, but also by ensuring that children from different social and economic backgrounds with variation in physical, psychological and intellectual characteristics are able to learn and achieve success in school. In this context, disadvantages in education arising from inequalities of gender, caste, language, culture, religion or disabilities need to be addressed directly, not only through policies and schemes but also through the design and selection of learning tasks and pedagogic practices, right from the period of early childhood. UEE makes us aware of the need to broaden the scope of curriculum to include in it the rich inheritance of different traditions of knowledge, work and crafts. Some of these traditions today face a serious threat from market forces and commoditization of knowledge in the context of the globalization of the economy.

The above statements reflect a new educational panorama, the curriculum

planners are going to draw in cognizance of shifts in contemporary sociology of knowledge to be addressed and attained by the learners. This may be evinced if we look the broad content headings of this national document.

The National Curriculum Framework-2005 has analyzed critically the then scenarios of School education in this country, presumably has taken cognizance of data from various source, and also the heart of the National Curriculum Framework-2000 which uttered voice against centre of gravity of school learning – memory work, examination centric and excessive information load when information is misinterpreted as knowledge. The review of National Curriculum Framework, 2000 was initiated specifically to address the problem of curriculum load on children as evinced in the Yashpal (1993) Committee Report-Learning without Burden. The general observations are that the flabby textbooks and the syllabi they cover symbolise a systemic failure to address children in a child-centred manner. The Learning without Burden recommended a major change in the design of syllabi and textbooks, and also a change in the social ethos, which places stress on children to become aggressively competitive and exhibit precocity. Harnessing the child's creative nature, the report recommended a fundamental change in the matter of organising the school curriculum, and also in the system of examination which forces children to memorize information and to reproduce it. Thus school knowledge of being young delinks from everyday experience.

With the prime aim at reforming school curriculum the 2005 Framework takes notes of the following.

Further, there is a deep disquiet about several aspects of our educational practice : (a) the school system is characterized by a inflexibility which makes it resistant to change; (b) learning has become an isolated activity which does not encourage children to link knowledge with their lives in any organic or vital way; (c) schools promote a regime of thought which discourages creative thinking and insights; (d) what is presented and transmitted in the name of

learning in schools bypasses vital dimension of the human capacity to create new knowledge; (e) the "future" of the child has taken centre-stage to the near exclusion of the child's "present", which is detrimental to the well-being of the child as well as the society and the nation.

To sum up in the school education system reside in :

- Inflexible, resistant to change.
- Learning is isolated activity, not link of life and organic growth.
- Encourages regime of thought, discourages creative thinking and insights.
- So-called learning presented and transmitted bypasses human capacity to create knowledge.
- Future of the child has taken central stage, excluding the present.

The basic concerns of education-to enable children to make sense of life and develop their potential. to define and pursue a purpose and recognise the right of others to do the same-stand uncontested and valid even today.... we need to reaffirm our commitment to the concept of equality, within the landscape of cultural and socioeconomic diversity from which children enter into the portals of the school. Individual aspirations in a competitive economy tend to reduce education to becoming an instrument of material success. The perception, which places the individual in exclusively competitive relationships, puts unreasonable stress on children, and thus distorts values. it also makes learning from each other a matter of little consequence. Education must be able to promote values which foster peace, humaneness and tolerance in a multi-cultural society.

The planners have critically observed the ground reality of school education and envisage reforming the system as per contemporary calls for qualitative improvement with a balanced distribution of equity, equality, and opportunity for access, retention and success. They clearly state : "Today, our country engages nearly 55 lakh teachers spread over around 10 lakh schools to educate about 2025 lakh children. While 82 per cent of habitations have a

primary school within a radius of one kilometre, there is an upper primary school within 3 kilometers for 75 per cent of habitations. At least 50 per cent of our children who appear at the school leaving examinations pass out of the secondary school system. Despite these trends, 37 per cent people of India lack literacy skills, about 53 per cent children drop out at elementary stage and over 75 per cent of our rural schools are multigrade".

Very meticulously "this document seeks to enable teachers and administrators and other agencies involved in the design of syllabi and textbooks and examination reform make rational choices and decisions". By contextualising the challenges involved in curriculum renewal in contemporary social reality, this document draws attention to certain specific problems which demand an imaginative response" in the manners such as devolution of decision-making to teachers and elected local level bodies, while it also identifies new areas for attention such as the need for plurality of textbooks and urgent improvement in the examination system.

- **Context / Retrospect**

The planners of this document have made an intellectual journey in several sources of knowledge that might contribute to framing this national curriculum. these are Mahatma Gandhi's call for awakening the nation's conscience to injustice, violence and inequality entrenched in the social order explicitly spelled out in his *Nai Talim for complete social transformation* through nations' education system before independence.

The National Commissions – the Secondary Education Commission 1952–53) and Education Commission (1964–66) both the two Commissions elaborated on the themes emerging out of Mahatma Gandhi's educational philosophy in the changed socio-political context with a focus on national development.

The Indian Commission and its amendment in 1976 (to include education

in the Concurrent List), National Education Policy of 1968 and the Curriculum Framework designed by NCERT in 1975 and also later on 1988, the 1986 National Policy on Education for building a national system of education as the socio-politico-cultural forces and factors have been taken care of by the planners.

The 1988's exercise of NCERT "aimed at making school education comparable across the country in qualitative terms and also makes it a means to ensure national integration without compromising on the country's pluralistic character..... However, the articulation of this framework through courses of studies and textbooks in a rapidly-changing developmental context resulted in an increase in 'curricular load' and made learning at school a source of stress for young minds and bodies during their formative years of childhood and adolescence".

1.11 Quality Dimension and Examination System focused at 12th Five Year Plan

Quality is the first and the last mantra of the national curriculum framework. The late J. P. Naik had described equality, quality and quantity as the 'elusive triangle' of Indian education. Moreover, UNESCO's recently published global monitoring report discusses systematic standards as the appropriate context of the quality debate. Physical resources by themselves cannot be regarded as an indicator of quality; yet, the extreme and chronic shortage of physical resources, including basic infrastructural amenities, in school run by the state or local bodies does present a serious quality constraint. The availability of qualified and motivated teachers who perceive teaching as a career option applies to all sectors of schools as a necessary precondition for quality. Suggestions for the dilutions of standards in teacher recruitment, training and service conditions articulated in the NPE and, before it, by the Chattopadhyaya Commission (1984) arouse anxiety and commented that no

system of education can rise above the quality of its teachers, and the quality of teachers greatly depends on the means deployed for selection, procedures used for training, and the strategies adopted for ensuring accountability.

The quality dimension also needs to be examined from the point of view of the experiences designed for the child in terms of knowledge and skills. Assumptions about the nature of knowledge and the child's own nature shape the school ethos and the approaches used by those who prepare the syllabi and textbooks, and by teachers.

No subject in the school curriculum can stay aloof from these larger concern, and therefore, the selection of knowledge proposed to be included in each subject area requires careful examination in terms of socio-economic and cultural conditions and goals. The greatest national challenge for education is to strengthen our participatory democracy and the values enshrined in the Constitution. Meeting this challenge implies that we make quality and social justice the central theme of curricular reform. Citizenship training has been an important aspect of formal education. A clear orientation towards values associated with peace and harmonious co-existence is called for. Quality in education a concern for quality of life in all its dimensions.

1.12 The Social Context of Examination Systems : Equity Pedagogy

The education system does not function in isolation from the society. Hierarchies of caste, economic status and gender relations, cultural diversity as well as uneven development that characterise Indian society, also deeply influence access to education and participation of children in schools. In urban locations and many villages, the school system itself is stratified and provides children with strikingly different educational experiences. Schools range from the high cost 'public' (private) schools, to which the urban elite send their children, to the ostensibly 'free' poorly functioning local body run primary schools where children from hitherto educationally deprived communities

predominate.

A striking recent feature is the growth of multigrade schools in rural areas, based on exclusion in education and undermine the constitutional value of equality of opportunity and social justice. If 'free' education is understood as 'removal of constraints' to education, then we must realise the importance of other sectors of the state's social policy for supporting and facilitating the achievement of UEE.

Globalization and the spread of market relations in every sphere of society have important implications for education. On the one hand, we are witnessing the increasing commercialisation of education, and on the other, inadequate public funding for education and the official thrust towards 'alternative' schools indicate a shifting of responsibility for education from the state to families and communities. We need to be vigilant about the pressure to commoditizing schools and the application of market related concepts to schools and school quality. The 73rd and 84th constitutional amendments and the institutionalised statutory space they provide for local communities to participate in decision-making in education for their children are important developments. However, parental aspirations for education are belied by endemic poverty and unequal social relations, and by lack of adequate provision of schooling of equitable quality. The expectations and aspirations of the poor for education cannot be set aside as being outside the frame of curricular concerns.

The social context of education in India thus presents a number of challenges which must be addressed by the curriculum framework, both in its design as well as its implementation.

1.13 Envisioned Aims of Education in the New Curriculum

The aims of education serve as broad guidelines to align educational processes to chosen ideals and accepted principles. Aims of education

simultaneously reflect the current needs and aspirations of a society as well as lasting values, immediate concerns of a community as well as broad human ideals. An aim must provide foresight. The school, classroom, and related learning sits are spaces where the core of educational activity takes place. These must become spaces where learners have experiences that help them achieve the desired curricular objectives. An understanding of learners, educational aims, the nature of knowledge, and the nature of the school as a social space, can help us arrive at principles to guide classroom practices.

The guiding principles discussed earlier, provide the landscape of social values within which we locate our educational aims, values of equality, justice, freedom, concern for others' well-being, secularism, respect for human dignity and rights. Education should aim to build a commitment to these values which are based on reason and understanding. The curriculum, therefore, should provide adequate experience and space for dialogue and discourse in the school to build such a commitment in children.

Sensitivity to other's well-being and feelings, together with knowledge and understanding of the world, should form the basis of a rational commitment to values. Learning to learn and the willingness to unlearn and relearn are important as means of responding to new situations in a flexible and creative manner. The curriculum needs to emphasise the processes of constructing knowledge.

Choice in life and ability to participate in democratic processes depend on the ability to contribute to society in various ways. This is why education must develop the ability to work, participate in economic processes and social change. This necessitates the integration of work with education. We must ensure that work-related experiences are sufficient and broad-based in terms of skills and attitudes, an understanding of socio-economic processes, and help inculcate a mental frame to work with others in a spirit of cooperation. Work alone can create a social temper. Appreciation of beauty and art forms is an

integral part of human life. Education must provide the means and opportunities to enhance the child's creative expression and the capacity of aesthetic appreciation. Education for aesthetic appreciation and creativity is more important today when aesthetic gullibility allows for opinion and taste to be manufactured and manipulated by market forces. The effort should be to enable the learner to appreciate beauty in its several forms.

The stated aims are mission statements in generalized format. These have not been translated into objectives to be achieved in most explicit manner. Thus the curriculum framework although declared that it is following Tyler's rationale model but it has been lacking technicality.

1.14 Learning and Knowledge – Curriculum

(a) Renewal's pedagogical base :

Establishes the need to recognise the child as a natural learner, and knowledge as the outcome of the child's own activity both within and beyond the classroom. Childhood is a period of growth and change, involving developing ones physical and mental capacities to the fullest. It involves being socialised into adult society, into acquiring and creating knowledge of the world and oneself in relation to others in order to understand, and to transform.

(b) Learning is at the heart of the curriculum in action :

The formal processes of learning that school makes possible can open up new possibilities for understanding and relating to the world. The curriculum framework advocates for child-centered pedagogy. 'Child-centered' pedagogy means giving primacy to children's experiences, their voices, and their active participation. This kind of pedagogy requires us to plan learning in keeping with children's psychological development and interests. The learning plans therefore must respond to physical, cultural and social preferences within the wide diversity of characteristics and needs. Our school pedagogic practices,

learning tasks, and the texts we create for learners, tend to focus on the socialization of children and on the 'receptive' features of children's learning. Learning is active and social in its character. Children's voices and experiences do not find expression in the classroom – often in our existing classroom. Hence the children will learn only in an atmosphere where they feel they are valued. Our schools still do not convey this to all children. The association of learning with fear, discipline and stress, rather than enjoyment and satisfaction is detrimental to learning.

The framework has pointed out the common sources of physical discomfort which include – long walks for young children to reach school.

Heavy school bags; time-tables that do not give young children enough breaks to stretch, move and play, and deprives older children of play/sports time, and encourage girls to opt out.

The curriculum must have a holistic approach to learning and development that is able to give them active participation in learning.

(c) Development and learning :

The precondition for all development is healthy physical growth of all children. Simple adaptation of playgrounds, equipments and rules can make activities and games accessible to all children in the school. Physical development supports mental and cognitive development, especially in young children. Alongside is the development of theories that children have about the natural and social worlds, including themselves. As children's metacognitive capabilities develop, they become more aware of their own beliefs and capable of regulating their own learning. Further as active learners :

- All children are naturally motivated to learn and are capable of learning.
- Making meaning and developing the capacity for abstract thinking, reflection and work are the most important aspects of learning.
- Children learn in a variety of ways – through experience, making and doing

things, experimentation, reading, discussion, asking, listening, thinking and reflecting, and expressing oneself in speech, movement or writing – both individually and with others. They require opportunities of all of these kinds of their development.

- Teaching something before the child is cognitively ready takes away from learning it at a later stage. Children may 'remember' many facts but they may not undersigned them or be able to related them in the world around them.
- Learning takes place both within school and outside school. Learning is enriched if the two areas interact with each other. Art and work provide opportunities for holistic learning that is rich in tacit and aesthetic components. Such experiences are essential for linguistically known things, especially in moral and ethical matters, to be learnt through direct experience, and integrated into life.
- Learning must be paced so that it allows learners to engage with concept and deepen understanding, rather than remembering only to forget after examination.
- Learning can take place with or without mediation. In this case the latter, the social context and interactions, especially with those who are capable, provide avenues for learners to work at cognitive levels above others. (NCF-2005, pp. 15 – 16).

(d) Teaching for construction of knowledge :

In constructivist perspective learning is a process of construction of knowledge. A child constructs her / his knowledge while engaged in the process of learning. Quite often children have an idea arising from their everyday active engagement and learning various concepts, skills and positions through the process. Very often teachers, in government as well as private schools, insist that all children must give identical answers to questions. We must indeed,

contemplate why we only ask children to give answers to questions.

Constructivist Learning Situation Process involves basically two elements – Interpretation, construction and Multiple interpretation.

In this context, teacher is a facilitator who encourages learners to reflect, analyse and interpret in the process of knowledge construction.

Much of our school learning is still individual based (although not individualised!). The teacher is seen as transmitting 'knowledge' which is usually confused with information to children, and organising experiences in order to help children learn. Learning in the company of others is a process of interacting with each other and also through the learning task on hand. This kind of learning gets enriched when schools enroll children from different socio-economic backgrounds.

There are ways in which group learning can be assessed and evaluated. Schools could also consider giving mixed age groups of children projects to do together. In such mixed groups there is much that children can learn from each other such as team work and social values. Group learning tasks, taking responsibility, and contributing to a task on hand are all important facets of not only acquiring knowledge but also in learning of crafts and arts.

(e) Designing Learning Experiences :

The quality of the learning task influences its learn ability and its value for the learner. Learners accept being controlled and learn to want to control. Answer, we need to allow learners to spend time on deeper meaningful learning. Learning tasks are to be designed to ensure that children will be encouraged to seek our knowledge from sites other than the textbook.

This framework misses to spell out clearly the criteria for selecting learning experiences and their length and breadth as usually found in technical approach to curriculum development and design. In this aspect the framework seems non-technical.

(f) Approaches to Planning

Learning must be focused on activity. The learning experiences should be organized as :

- Observing something happen,
- Participating in an exercise involving body and mind such as planning a role around a theme and presenting it,
- Talking about and reflecting on something the child has experience,
- Making something, say, a system of gear wheel or try ng out an experiment in a lift
- After the experience, the teacher could organize a discussion, an exercise involving, writing, drawing and display, etc.

1.15 Knowledge and Understanding : Basic Capabilities of Learners

The curriculum needs to provide experiences that build the knowledge-base through a progressive introduction to the capabilities of thinking rationally, to understand the world through the disciplines, aesthetic appreciation, and sensitivity to others, to work and to participate in economic processes. This section discusses the nature and forms of knowledge and understanding as necessary for making informed curricular choices and approaches to content.

Knowledge can be conceived as organised, through language, into patterns of thought (or structures of concepts), thus creating meaning, which in turn helps understand the world we live in. It can also be conceived of as patterns of activity, or physical dexterity with thought, contributing to acting in the world, creating and making of things. Human beings, over time, have evolved both a wealth of bodies of knowledge which includes a repertoire of ways of thinking, of feeling and of doing things and constructing more knowledge. It suggests that in the curriculum, there must be as much focus on the process of learning, on how learners engage with and reconstruct knowledge, as on the content of what is learnt.

Education would concern itself with maintaining and transmitting this store-house of human knowledge, educational aims. The range of human capabilities is very wide, and through education.

Children's basic capabilities are those that form the broad basis for the development of understanding, values and skills. Three basic capabilities of the learners have been prioritized by the NCF-2005 :

a) Development of language for a child is synonymous with development of understanding and identity and also the capability to relate with others. Not only verbal languages with scripts, but also languages without scripts, sign languages, scripts such as Braille and performing arts provide the bases for making meaning and expression.

b) Forming and sustaining relationships with the social world, with the natural world, and with one's self, with emotional richness, sensitivity and values.

c) Capabilities for work and action, involves the coordination of bodily movement with thought and volition ; drawing on skill and understanding and directing to achieve some purpose or create something, substantial part of the school curriculum.

1.16 Forms of Understanding

Knowledge can be categorized based on distinct kinds of concepts and meanings involved and processes of validation and justification. Mathematics has its own distinctive concepts, such as prime number, square root, fraction, integral and function. The validation procedures of mathematics are never empirical, never based on observation of the world or on experiment, but are demonstrations, internal to the system specified by the appropriate set of axioms and definitions.

Scientific inquiry involves observation and experimentation to validate predictions made by theory (hypotheses), which may be aided by instruments

and controls. Social Sciences and Humanities have their own concepts, for example community, modernization, culture, identity, and polity. Social Sciences aim at developing a generalized and critical understanding of human beings and human groups in society. The Social Sciences concern themselves with description, explanation and prediction in the social world. With regard to the process of knowledge formation, Science and Social Sciences are first, the Social Sciences study human behavior which is governed by 'reasons', while the nature is governed by 'cause-effect'. Second, findings of Social Sciences often raise issues of ethics and desirability while natural phenomena can be understood, raising ethical questions only when they enter into the domain of human action.

Art and aesthetics use quite familiar words, such as rhythm, harmony, expression. Art productions cannot be judged against reality or for 'truth'. Ethics is concerned with all human values, and with the rules, principles, and standards.

In relation to action and choice, therefore, ethics must be conceded primacy over each of the forms of understanding. Furthermore, such reasons will be reasons for anyone ; reason, equality and personal autonomy are therefore very intimately connected concepts.

Philosophy involves a concern on the one hand, with analytical clarification, evaluation and synthetic coordination of the aforementioned forms of understanding.

The basic capabilities, the knowledge of practice and the forms of understanding are the core ways in which human experience has been elaborated in the course of history. Imagination and critical thinking are linked in obvious ways with the development of understanding and reason, and so are the emotions.

Thus, the curriculum planners have reflected on cognitive constructivism, social constructivism, learning in situ, moral reasoning, metacognitive

elaboration of one's thought processes, problem-posing learning, collaborative learning, etc. and imagined to bring the appropriate exercise by the teachers in classroom learning.

1.17 Children's Knowledge and Local Knowledge

Next the NCF-2005 goes on to a vital issue in modern curriculum development practice which stands for connection between everyday experience with text-based knowledge. It puts this issue as :

"The child's community and local environment form the primary context in which learning takes place, and in which knowledge acquires its significance. It is in interaction with the environment that the child constructs knowledge-derives meaning. Although this area has generally been neglected both in conceptualisation of textbooks, and in pedagogic practices. Hence in this document, we emphasize the significance of contextualising education : of situating learning in child's context, and of making a porous boundary between the school and its natural and social environment. This is not only because the local environment and the child's own experiences is the best 'entry point' into the study of disciplines of knowledge, but more so because knowledge is to connect with the world. It is not a means to an end, but both means and end. This does not require us to reduce knowledge to the functional and immediately relevant but to realise its dynamism by connecting with the world through it.

Unless learners can locate their individual standpoints in relation to the contexts represented in textbooks and relate this knowledge to their experiences of society, knowledge is reduced to the level of mere information. If we want to examine how learning relates to future visions of community life, it is crucial to encourage reflection on what it means to know something and how to use what we have learnt. The learner must be recognised as a proactive participant in his or her own learning.

Day after day children bring to school their experiences of the world

around – the trees that they have climbed, the fruits they have eaten, the birds they have admired.

1.18 School Knowledge and the Community

Children need to find expression and representation of the plurality of people and community is oversimplified, labeled, or judged. Stud and generate portrayals of the local social groups as a part of their social science studies. Local oral history could also be connected with regional history and national history. But the social context also calls for a much greater critical awareness and critical engagement on the part of curriculum developers and teachers. Community-based identities of gender, caste, class and religion are primary identities but they can also be oppressive and reaffirm social inequalities and hierarchies. School knowledge can also provide a lens through which children can develop a critical understanding of their social reality. Knowledge and experiences in the school curriculum. The school must then be prepared to engage with communities to listen to their concerns, and to persuade them to see the educational value of such decisions. If we are to ensure participation of children of all groups, in our secular education, we will have to discuss our curricular choices with others who are legitimate stakeholders in education.

1.19 Curricular Areas and Assessment

The NCF-2005 in this Chapter has reflected upon the changing order of knowledge and observed that this dynamic nature of knowledge production and application have not clearly addressed in school practices. It puts : "It is important that each curricular areas is revisited in depth, so that specific points of entry can be identified to the context of emerging social needs. In this respect, the status and role of the arts and health and physical education deserve special attention in view of the peculiar orbit of the 'extra-curricular' to which they were relegated almost a century ago. Aesthetic sensibility and experience

being the prime sites of the growing child's creativity, we must bring the arts squarely into the domain of the curricular, infusing them in all areas of learning while giving them in an identity of their own at relevant stages. Work, peace, and health and physical education have a similar case. All three have a fundamental significance for economic, social and personal development. Schools have a major role to play in ensuring that children are socialized into a culture of self-reliance, resourcesfullness, peace-oriented values and health".

To sum up, the NCF-2005 has embraced eight areas of studies, such a Language, Mathematics, Science, Social Sciences, Art Education, Health and Physical Education, Work and Education, and Education for Peace.

The area-wise renewal directions may be presented in the following order.

- Language
- Language skills – speech and listening, reading and writing – cut across school subjects and disciplines.
- A renewed effort for implementation three-language formula, emphasizing the recognition of children's home language or mother language (including tribal language if needed) as the best method of instruction.
  - English needs to find its place along with other Indian languages.
  - The multilingual character of Indian society should be seen as a resource for the enrichment of school life.
- Mathematics
  - Mathematization (ability to think logically, formulate and handle abstraction) rather than 'knowledge' of mathematics (formal and mechanical procedures) is the main goal of teaching mathematics.
- Science
  - Content, process, and language of science teaching must be commensurate with the learner's age- range and cognitive reach.
  - Science teaching should engage the learners in acquiring methods and processes that will nurture their curiosity and creativity, particularly in

relation to the environment.

- Science teaching should be placed in the wider context of children's environment to equip them with the requisite knowledge and skills to enter the world of work.
- Awareness of environment concern must permeate the entire school curriculum.

➢ Social Studies

- Social science content need to focus on conceptual understanding rather than lining up facts to be memorized for examination, and should equip children with the ability to think independently and reflect critically on social issues.
- Interdisciplinary approaches promoting key national concerns such as gender, justice, human rights, and sensitivity to marginalized groups and minorities.
- Civics should be recast as a political science, and the significance of history as a shaping influence on the children's conception of the past and civic identity should be recognized.

➢ Work

- School curricula from the pre-primary stage to the senior secondary stage need to be reconstructed to realise the pedagogic potential of work as a pedagogic medium in knowledge acquisition, developing values and multiple skill formation.
- The art should compromise a subject at every stage of school curriculum.

➢ Peace

- Peach-oriented values should be promoted in all subjects throughout the school years with the help of relevant activities.
- Peace education should form a component of teacher education.
- Peace education should form a component of teacher education.

- Health and Physical Education
  - Health and physical education are necessary for the overall development of learners.
- Habitat and Learning
  - Environmental education may be best pursued by infusing the issues and concerns of the environment into the teaching of different disciplines at all levels.

Special emphasis has been given in the area of teaching-learning of Social Sciences keeping in view the pluralistic nature of Indian society. Hence, two important deliberations of NCF-2005 in relation to Social Sciences are being presented separately. Here the framework very loosely speaks for different subject matter integration but it does not state to what extent the inclusion of different aspects of integration of learning experiences would follow vertical, horizontal or spiral or wheel approach. Or in which way it will maintain continuity in organization of educational experiences.

1.20 The Proposed Epistemological Frame

Based on the above considerations of popular perceptions, and the issues to be addressed in the study of the social sciences the national focus group on teaching of social sciences proposes that the following points be treated as basic for the revised syllabi. As pointed out by the Kothari Commission, the social science curriculum hitherto emphasized developmental issues. An epistemological shift suggested, so as accommodating the multiple ways of imagining the Indian nation. At the same time, Indian history should not be taught in isolation, and there should be reference to developments in other parts of the world. Political Science treats civil society as the sphere that produces sensitive, interrogative, deliberative, and transformative citizens. Gender concerns need to be addressed in terms of making the perspectives of women integral to the discussion of any historical event and contemporary concerns.

This requires an epistemic shift from the patriarchal preconceptions which inform much of the social studies at present.

The concerns related to health of children and also those related to social aspects of changes and developments occurring in them during adolescence like changing children are introduced to universal values, in a manner appropriate for their age. Reference to day-day issues e.g. the problem of getting water, can be discussed so that young students become aware of issues related to human dignity and rights.

1.21 Planning the Curriculum

The natural and the social environment will be explained as integral parts of languages and mathematics. The languages used should be gender-sensitive. Teaching methods should be in a participative and discussion-oriented mode.

In Political Science, the student will be introduced to formation and functioning of governments at local, state and central levels and eh democratic processes of participation. At the secondary stage, Social Sciences comprise history, geography, sociology, political science, and economics. The focus will be on Contemporary India and the learner will be initiated into a deeper understanding of the social and economic challenges facing the nation. In keeping with the epistemic shift proposed, these will be discussed form multiple perspectives, including those of the adivasi, dalit and disenfranchised populations. Possible to the children's everyday lives. In History, India's freedom movement, and other aspects of its modern history can be studied, as well as significant developments in other parts of the world. History should help them discover processes of change and continuity in their world and to compare ways in which power and control were, and are exercised. Geography should be taught keeping in mind the need to inculcate in the child's critical appreciation for conservation and environmental concerns along with developmental issues. In Political Science, the focus should be on discussing the philosophical

foundations that underlie the value-framework of the of the Indian Constitution, i.e. in-depth discussion of equality, liberty, justice, fraternity, dignity, plurality, and freedom from exploitation. The higher secondary sage is important as it offers a choice of subjects to the students. For some students, this stage may be the end of their formal education, leading to the world o work and employment; for others, the foundation for higher education. They may choose either specialised academic courses or job-oriented vocational courses. A range of courses from social sciences and commerce may be offered and students may exercise their choice. Subjects need not be grouped into separate 'streams', and students should have the freedom to opt for subjects or courses according to their need, interest, and aptitude. The social sciences will include disciplines like political science, geography, history, economics, sociology and psychology. Commerce may include business studies and accountancy.

1.22 Main Menu of Classroom Environment

a) Main Areas of Renewal

1. Availability of minimum infrastructure and material facilities, and support for planning a flexible daily routine, are critical for improved teacher performance.
2. A school culture that nurtures children's identities as 'learners' enhances the potential and interests of each child.
3. Specific activities ensuring participation of all children.
4. The value of self-disciplining among learners through democratic functioning is as relevant as ever.
5. Participation of community members in sharing knowledge and experience in a subject area helps in forging a partnership between school and community.
6. Reconceptualization of learning process in terms of (a) textbooks focused on elaboration of concepts, activities, problems and exercises encouraging

reflective thinking and group work, (b) supplementary books, workbooks, etc. based on fresh thinking and new perspectives, (c) multimedia and ICT as sources for two-way interaction rather than one-way reception, and (d) school library as an intellectual space for teachers, learners, members of the community to deepen their knowledge and connect with the wider world.

7. Decentralized planning of school calendar and daily schedule and autonomy for teacher professionalism practice are basic creating a learning environment.

1.23 Presents Systematic Reforms of the Existing Curriculum and Examination Systems

Main Areas of Reform

1. Quality concern, a key feature of systematic reform, implies the system's capacity to reform itself by enhancing in ability to remedy its own weakness and to develop new capabilities.
2. It is desirable to evolve a common school system for schooling of all sections and types of learners in the spirit of inclusion.
3. A broad framework for planning upwards, beginning with schools for identifying focus areas and subsequent consolidation at the cluster and block levels, could for a decentralized planning strategy at the district level.
4. Meaningful academic planning has to be done in a participatory manner by headmasters and teachers.
5. Monitoring quality must be seen as a process of sustaining interaction with individual schools in terms of teaching-learning process.
6. Teacher education programme need to be reformed and strengthened so that the teachers can be an (a) encouraging, supportive and humane facilitator in teaching-learning situations to enable learners to discover their talents, to realise their physical and intellectual potentialities to the fullest, to develop character and desirable social and human-values to function as

responsible citizens; and (b) active members of a group of persons who make conscious efforts for curricular renewal so that it is relevant to changing social needs and the personal needs of learners.

7. The NCF 2005 states : "Reformulated teacher education programmes that place thrust on the active involvement of learners to the process of knowledge construction, shared context of learning, teacher as a facilitator of knowledge construction, multidisciplinary nature of knowledge of teacher education, integration theory and practice dimensions, and management with issues and concerns of contemporary Indian society from a critical perspective".
8. Centrality of language proficiency in teacher education and an integrated model of teacher education for strengthening professionalization of teachers assume significance.
9. In-service teacher education will be a catalyst for change in school practice.
10. The Panchayati Raj system should be strengthened by evolving a mechanism to regulate the functioning of parallel bodies at the village level so that democratic participation in development can be realised.
11. Reducing stress and enhancing success in examinations necessity : (a) a shift away from content-based testing to problem solving skills and understanding, (b) a shift towards shorter examinations, (c) an examination with flexible time limit, and (d) setting up a single nodal agency for coordinating the design and conduct of entire examinations.
12. Institutionalization of work centered education as an integrated part of the curriculum from the preprimary to the +2 stage is expected.
13. Vocational Education and Training (VET) needs to be conceived and implemented in a mission mode, involving the establishment of separate VET centres.

14. Availability of multiple textbooks to widen teacher's choice and provide for diversity in children's needs and interests.
15. Sharing of teaching experiences and diverse classroom practices to generate a new idea that facilitates innovation and experimentation.
16. Development of syllabi, textbooks and teaching-learning could be carried out in a decentralized and participatory manner involving teachers, experts from universities, NGOs and teachers' organization.

1.24 Assessment and Teacher Education Curriculum

Taking a Gestalt view of all that is said about teacher education curriculum, certain things show up as supplementary to make it operate effectively. As a teacher is to be groomed day in and day out of the training programme, it becomes necessary that each act of the trainee has to be monitored by the teacher-educator. This monitoring serves two purposes, one of guidance and feedback, and the other of evaluation. The best type of assessment in the teacher training programme could thus be seen as the internal assessment. It is in fact to be a process-oriented assessment rather than a final product-oriented assessment. But it should be kept in mind that the monitoring of the trainee's work should have its primary objective to help the trainee learn and improve in his work, rather than to assign some marks or grade. The whole training programme should be geared and modeled to fit into the system of internal assessment.

Summing up, a curriculum reform, can never be final in its form. It is a continuous process of thinking, modifying and evaluating. New ideas do emerge as a result of thinking, discussion and experimentation. This seems to be the way for finding solutions to the stated maladies associated with the teacher education curriculum.

1.25 UGC Curriculum Framework

Some critical issues in the aspect are :

1. For promoting ICT in curriculum framework UGC will be providing inputs for use of ICT in the higher education domain for development of technical standards.
2. To ensure latest technologies available for faculty, staff and students of higher education (example – mobility, wireless, e-learning and collaboration). This type of Collaboration Center is planned to be operated by June, 2005.
3. UGC suggested to deploy wireless infrastructure in Universities and Colleges.
4. UGC with a collaborative practice achieving to foster the spirit of research and development in mutually agree areas (for example Materials Science, VLSI design) and share best practices to create a higher adoption rate. IT will share such best known methods through special forums which may be planned once every quarter or at a mutually agreed frequency.
5. Expose key faculty from universities as well as the UGC Academic Staff Colleges to participate in the Curriculum Development Workshops so that faculty can go back and change curriculum in their respective universities.
6. UGC will work in conjunction with others to come with a framework for use of ICT in the higher education domain and in development of data and technical standards.
7. UGC will assist to setup the Innovation Center and will reference it to key stakeholders in the Universities and Colleges to utilize this platform effectively.
8. UGC will assist to deliver fifty wireless pilots in Universities and Colleges effectively. UGC will also work towards improved network resources within the Higher Education system and collaborate systematically plan for such deployments on a larger scale.

9. UGC will assist in conducting the Best Known Methods sessions on a regular basis and invite identified universities and colleges to these forums.
10. UGC will effectively inform key stakeholders within higher education system of special programs on hardware, connectivity, software and training offerings.
11. UGC will subscribe to Technology @ Intel journals free of cost, and provide UGC Infonet as the mechanism to deliver it to the faculty and student community across India.
12. UCG will identify key faculty for participation in Intel Curriculum Development Workshops and inform the participants with regular updates or mailers.
13. UGC will monitor the efficacy of IT effectiveness and deployment and work with Intel to enhance the reach and scale out through periodic updates.
14. UGC will form a core team for each of the identified project.

1.26 Productive and Outcome – Based Approaches

According to the UGC curriculum framework it is highlighted that education will be gradually productive in nature and outcome based.

These approaches are certainly not new to any institutions. It is unthinkable that teaching staff have never considered the intended outcomes to be achieved by students before designing the curriculum or assessment methods of any given programme. Outcome-based approaches therefore not about creating an alternative scheme but they build on and make the existing system better.

A number of challenges can be anticipated in the early stages of implementation, and experience in other jurisdictions shows that there are likely debates on the merits of implementing outcome based approaches, and the best strategies for adoption. The institutions and the UGC need to involve

stakeholders early and often. We need to discuss with the teaching staff, students, employers and the general public – with the merits of outcome-based approaches thrashed out in open dialogue.

1.27 UGC's Motives

The goal is simple and straightforward – improvement and enhancement in student learning and teaching quality.

An outcome-based approach to student learning is a student-centered approach. Placing the emphasis on learning outcomes helps institutions focus their education effort on what that effort is meant to achieve, and itself leads to better teaching and learning. It facilitates institutions' academic planning by placing students' interest at the forefront. This is particularly relevant when all institutions are planning major changes in their curricula. Clear understanding and articulation of what it is intended that students should achieve, facilitates the design of an effective curriculum and appropriate assessments to measure achievement, and to plan the learning process for individual students.

The better prepared institutions have curriculum development processes that are totally or partially outcomes based; constructive alignment of : teaching and learning processes and assessments, with outcomes; elaborate student and staff feedback systems; an understanding that outcomes assessment is not about examinations; strategies based on evidence; and benchmarking against self-selected peers outside the institution. There is also an important recognition that this is not a paper exercise – documentation is important, but it is vital to anchor the process in real student and teacher work. We still have a long way to go, but we have a good foundation.

Most importantly, all institutions accept the need for broad-based, participatory, and consensus building processes in curriculum. Institutions concur that members of staff should be involved early and often for this to be a success. There needs to be extensive buy-in across the facilities, and

involvement in the planning stages.

Building consensus and rapport is certainly essential. Another element is to reflect on the existing curriculum and identify what has already been done. It is surprised to find that a platform has already been quietly built up. Also, it is inherently easier to implement outcome-based approaches in certain academic disciplines, such as professional programmes. Outcome-based approaches may be difficult to comprehend in the abstract. That is why we need early victories to spark more success, and visible results so that others will follow. We should be open to using an experimental approach, involving the use of pilot programmes.

In fact UGC does not have an clearly articulated curriculum framework, as Universities are responsible for this task. But it gives suggestions from time to time to the Universities regarding general policy and principles to be adopted.

It will be amply clear from the above that the action / initiatives taken by the NCERT and UGC in the fields of school and higher education sectors have been in pursuance of and within the parameters of the National Policy on Education with a view to bringing about quality upgradation and meeting emerging challenges.

We have learnt already various aspects of curriculum studies in the Unit. To put these in order, we have been acquainted with some basic elements of curriculum studies what curriculum workers usually performed for analysing the explicit as well as implicit thoughts, rationales, underpinning and reflection lying in the curriculum document. Or what were the questions that have made the curriculum workers to put efforts in developing a curriculum or for renewal of an existing curriculum so that it becomes more mature and effective in realising the new aims evolved from new demands and changes in the curriculum perspectives. Moreover, we have been made known the general elements of a curriculum framework as a matter of technical skills building. Gradually, we have made a big cognitive journey to curriculum studies to three curriculum framework developed and produced by NCERT, NCTE and UGC,

the three national key players of our national system of school education, teacher education and higher education (non-technical) respectively. We have noted that each of the above three curriculum frameworks demonstrate collaborative or team work under the leadership of the national key players. Each curriculum framework has been guided by the general aims of education pertained to each of the three systems of education. Each of these efforts are basically for curriculum renewal. Finally, each one is envisaged to realise the spirit of national system of education.

From the technical perspectives of curriculum studies, it seems that each framework has attempted to set goals but at times the curricular thinking seems not adequate for realising the goals. At some instances the application of system approach to curriculum framework building seems piecemeal. The signs of the official demands- and -supply and keeping a balance in between them has been discernible.

1.28 Examination Reforms suggested by Education Commission (1964-66)

The Education Commission under the chairmanship of Dr. D.S. Kothari has expressed concern over the dismal picture of school education and the defective system of evaluation. Some of the reforms suggested by the Education Commission are as follows :

- Examination should be a continuous process and therefore, must be done by internal assessment made by school teacher. It should form an integral part of the total education system of education.
- Attempts should be made to improve the written and external examination. So as to make it a valid and reliable measures o educational achievement.
- Techniques should be devised to measure the non cognitive learning outcomes, which cannot be measured through written examination.
- There should be public or external examination at the end of class X, XI at the level of school and public examination at the end each o the year of the

University examination.

- Some marks should be reserved for viva-voce examination especially in the practical subjects.
- The standard of the external examinations should be raised.
- There should be an evaluation organization in each stage to prescribe maintain and revive the standard of examination.

1.29 The Committee on Examination (1970)

A committee on examination was set up by C. A. B. E. in May 1970 to examine the present situation and make recommendation to counteract malpractices and to give protection to invigilators and other concerned with examination. This commission was headed by the Union Education Minister and made important recommendations.

1.30 International Commission on Education (1972)

The commission recommended several reformations for examinations. It stated "Real evaluation of a pupil's achievement should be based not on a single, summary examination but on over all observation of his work throughout a course of study. It should pay less attention to the volume of memorized knowledge and more to the development, of his intellectual capacity, reasoning ability, critical judgment an proficiency in problem solving. The commission gave useful suggestions for reforming our examination system.

It is apparent from the above discussion that the different commissions and committees pointed out the major goals of the programme of examination reform and the suggestion aimed at :

- To make the examination a valid and reliable measure of pupil's growth. This means that examination system should be changed from the evaluation of merely academic achievement to the evaluation of 'pupils' growth in both academic and non-academic areas.
- Change from periodical evaluation to continuous evaluation.

- Eliminating subjectivity and incidence of chance as far as possible.
- Minimizing the role o memorization so that other desirable and higher objectives like understanding and application of knowledge to newer situations and critical thinking can be assessed in overall evaluation.
- Change from limited coverage of the syllabus to its effective coverage by assigning due weightage to the various areas of content for developing question papers. Thus discouraging selective study and selective teaching which are possible under the traditional scheme.
- Change from fewer questions to a large number of questions. This is a natural of corollary of the previous point.
- Change from the use o one form of question to the use of variety of forms. This is also a naturally corollary o the suggestions. Other than all essay type question requiring long answers, the reformed scheme encourage inclusion of short answer type and objective question of various types like true, false and also filling the blanks and multiple choice types.
- Change from vague questions to specially worded questions. In the present system the "discuss", "evaluate", "elucidate" are used almost indiscriminately and the examinees write all that they know about he topic.
- Making examinations a powerful instrument of improved teaching and learning through feedback.

1.31 Research on Examinations-A Retrospective and Prospect by Pritam Singh in Collaboration with Dr. R.G. Misra : A Theme Paper in a Seminar arranged by NCERT

This paper emphasized on social prestige of examinations, measurement aspects of examinations which deals with validity and reliability ,objectives, feedback and impact, neglected perspectives of examination, public examinations, analysis of examination results, school examination and internal assessment, neglect of affective and psychomotor domains, diagnosis and

remediation, ecological aspects of examinations. The research had given priority to the new roles of examinations, teacher based assessment, student development, better judgments, illuminative evaluation, programmed evaluation. The following points were focused on the paper :

- Objectives
  - Methodologies
  - Attitudes
  - Concept development
  - Student evaluation
  - Evaluation model
- Feedback and impact
  - Social impact of testing
  - Effect of knowledge on results
  - Improvement of instruction
  - Consequences of misusing tests
  - Feedback of results
  - Development of self-concept
  - Test for teaching
  - Diagnosis and students drop-out
  - Individual instruction
- Neglected perspective
  - Philosophical
  - Psychological
  - Social
- Neglected area
  - Psychomotor
  - Affective
- Public examination
  - Construction and standardization of achievement test

- Marking and grading
- Study of examination results

➢ School examination

- Internal assessment
- External assessment
- Achievement of cognitive, affective and psychomotor objectives
- Diagnosis and remediation
- Role of teacher and attitudes towards internal assessments

➢ Economical aspect of examination

- Low validity and reliability of examination which is discouraging
- Loss of money and time
- More unit test to motivate student for better learning

➢ Validity and reliability

- Predictive validity of examination
- Content reliability
- Total reliability

➢ Mechanics of examinations / form and functioning

- Social, academic, psychological and philosophical climate of the institution
- Poorly developed and badly administered objective type questions
- Total examination procedure
- Examiners, design, blue print
- Malpractice

➢ Analysis of examination results

- Pass, fail
- Wastage, stagnation
- Performance of the pupil
    - ➢ Effectiveness of the instructional process

1.32 Setting of Question Papers – A NCERT Seminar Paper by V. Natarajan

This paper focused on kind of questions which are asked in public examinations at all levels, determine to a large extent the kind of teaching done in the classroom. Most questions asked are stereotyped, repetitive and memory based. It is only occasionally that questions asked tend to assess the understanding of a student or his ability to apply whatever he has learnt to a problem or situation with which he is not familiar. The following points were focused in the paper;

- Item must measure an important learning outcome.
- Concern on important content area.
- Difficulty level must be appropriate to the level of students learn.
- Discriminate among the students.
- Item must include one central idea in a statement.
- Statement precise.
- Brief and simple sentence.

1.33 Non-Scholastic Aims and Objectives and Evaluation Thereof : Method of Education – A Seminar Paper by V. N. Abhayankar in a NCERT seminar

This paper focused on the following points :

- Objectives of teaching the subjects
  - Mathematics, social and natural science
- Getting mastery over each subject and creating a desire to solve problems connected with it.
- Class objectives
  - Writing
  - Memorization
  - Reading

- Speaking
- Critical listening
- Independent writing
- Criticism
- Increasing research ability

➢ Learning skills

- Speed of reading
- Creative thinking
- Note-taking
- Precise writing

➢ Physical and emotional development

- various activities to develop physical and emotional aspects such as study circles
- camps
- meetings
- drawing
- planning

➢ Cultural day

➢ Evaluation and daily teaching

➢ The pattern of oral examination

➢ Ranks, prizes, promotions

➢ Conduct and participation

1.34 A Brief Note on the Scope of Public Examination – A Seminar Paper presented by Krishan Chand Jain in a NCERT Seminar

The paper focused on public examination and its scope. The following points were focused on the study :

➢ Scope

➢ Scholastic achievement

- Physical health
- Personal and social qualities as discipline
- Regularity
- Punctuality
- Habits of cleanliness
- Emotional stability
- Interest
- Co-curricular activities
  - Debate
  - Recitation
  - Drama
  - Music
  - Dance
  - Science club
  - Outdoor games
  - Gardening
- Tools
  - Rating scale
  - Anecdotal reports
  - Records
- Certificate

1.35 Objectives of the Study

1. To study the examination system in higher education.
2. To analyze examination system in respect to academic achievements.
3. To study different aspects in higher education through graphical analysis.
4. To investigate the influence of examination system on academic achievement.
5. To find out different examination systems related to higher education in terms of non-parametric statistics.

1.36 Need and Significance of the Study

The investigator in his study has tried to revise thoroughly the present examination system at higher education level of different universities in West Bengal. The standard questionnaire was prepared by the researcher based on the objectives of the study. The test items were prepared to befitting to the dimensions identified and suggested by the experts.

The task will help the teachers, education thinkers, curriculum planners and specialists to know whether the present examination system is up to the mark or not. Teachers would be able to know whether the present examination system is satisfied by the students or not. Similarly, the educational thinkers and experts would be helpful by knowing the attitude of students towards the present examination system.

The study would help to know the future scope of the students, their present achievements and that affect their daily life.

The present examination system in higher education has been analyzed by the researcher and a questionnaire has also been prepared by him. This would help the educational planner and curriculum framer a lot.

1.37 Delimitation of the Study

The students of some selected colleges in West Bengal were only considered.

So the conclusions are drawn in favour of graphical presentation and Chi square testing. Other inferential statistics may also apply for drawing conclusion but limited the study with the mentioned format for concluding the research findings.

Stage of Education : The researcher considered only 1st year degree college level of the education system.

Sample Size : The researcher conducted the test on 600 samples for conducting study.

Class : The researcher considered only students of 1st year degree college.

Area : The researcher surveyed in the area near to the city.

Number of Colleges : The researcher surveyed on students of 14 colleges in West Bengal

Dimension : The researcher has taken some of the dimensions related to the degree examination system.

Reliability : The researcher followed only test-retest procedure to determine reliability.

Analysis of the Data : Out of several methods of analyzing the data, the researcher has used i) graphical representation of data for simple analysis, ii) Chi-Square test for inferential statistics.

CHAPTER – II

REVIEW OF RELATED STUDIES

CHAPTER – II
REVIEW OF RELATED STUDIES

2.1 Introduction

Examination is an important phenomenon in the education system. Our education system is examination-oriented. Teaching, learning and testing go side by side. Examination system is a very strong indicator of the effectiveness of education. As is increasingly observed and felt, the present system of education is failing in its goal of knowledge building and expected level of competencies, naturally the accusing finger points towards the ineffective examination system. Many a time attempts have been made to outstrip this system of education but because examinations fulfill many educational and social responsibilities, hence the great need to reform the examination system instead of doing away with it.

A glance through the pages of educational history of our country would bear out that although suitable efforts have been made of tinker with examination system, yet the efforts in the direction of examination reform, have largely remained unsuccessful. This is the main reason why event after a century, it is being increasingly felt that our examination system is ill-serving the purpose it should have served, and that it needs drastic overhauling in the present circumstances.

The present system of examination is the greatest obstacle in the path of educational reconstruction. The matter of the examination reforms was seriously taken up for the first time by the Government of India in 1956. S. R. Dongerkery Committee appointed by U. G. C. in September 1957, took a broad view of the problem of examination reform and recommended means to improve the academic and technical aspect of examination.

Examination is an important phenomenon in the education system. Our education system is examination – oriented. Teaching, learning and testing go

side by side. Examination system is a very strong indicator of the effectiveness of education. As is increasingly observed and felt, the present system of education is failing in its goal of knowledge building and expected level of competencies, naturally the accusing finger points towards the ineffective examination system. Many a time attempts have been made to outstrip this system of education but because examinations fulfill many educational and social responsibilities, hence the great need to reform the examination system instead of doing away with it.

A glance through the pages of educational history of our country would bear out that although suitable efforts have been made of tinker with examination system. yet the efforts in the direction of examination reform, have largely remained unsuccessful. This is the main reason why even after a century, it is being increasingly felt that our examination system is ill-serving the purpose it should have served, and that it needs drastic overhauling in the present circumstances.

The present system of examination is the greatest obstacle in the path of educational reconstruction. The matter of the examination reforms was seriously taken up for the first time by the Government of India in 1956. S. R. Dongerkery Committee appointed by U. G. C. in September 1957, took a broad view of the problem of examination reform and recommended means to improve the academic and technical aspect of examination.

Examination is an important part of education. It is an instrument to test what the student has learned and retained in his mind. Defective examination is, thus, an expression of defective education. Examination and education are so interlinked that one is bound o influence the other. Examination is nothing but a temporary measuring rod of scaling person's capacity and achievements.

The function of examination should be to analyze and judge as to what extent a particular student has achieved and acquired knowledge or skill in a specific field of his education and growth. On the basis of the examining

agency, examination is of two types Internal and external on the basis of method of examining. The examination is o three types- oral, written (free answer type : essay and short answer and structured answer type : objective type) and practical.

In lower classes oral test is conducted in lieu of written test since students do not have the ability to write at that age. In higher classes of course written test is invariably conducted. In science and technical studies, practical examinations are conducted.

Examination ascertains the proficiency of a student up to a certain limit. It induces students to prepare well in the subjects given to them. But by examination the real talent of students cannot be fathomed. The research minded scholars have been found not to have performed well in the stereotyped examinations.

Whereas a mediocre student may perform well in an examination by preparing some selective topics, a meritorious student may not fare better comparatively. The reason is questions are set from a few topics. Instances of great men like Winston Churchill, Mahatma Gandhi, Albert Einstein, and Edison may be cited in this respect.

2.2 Background Information of Examination System and Reforms

Our examination compels students to prepare for those topics or for which students are not interested. Great minds cannot be tested by the prevailing examination system that is defective. The term examination makes a student unnecessarily nervous.

Examinations are thought as a test of the ignorance of students. But it is not justifiable. The present system of examination encourages the habit of cramming. No step has yet been taken to rectify the defects so far. We find that a student fleets his time carelessly for the whole year without study as reading for a few days before the day of examination enables him to pass the

examination. They pass the examination just by getting by heart some selective topics.

Another method adopted by students now a day for passing is by copy. The examination encourages idleness, copying and carelessness.

For eradicating such evils the progress of a student should be judged not by the final result but by taking into account the result of several examinations conducted by various examiners. Otherwise dull students would be able to show their brilliance where as good and sincere students would feel neglected and helpless.

There is a difference of judgment in awarding marks in essay type questions by different examiners. Examinations however cannot be avoided altogether. The question papers should be designed so as to test the overall aspect of a student. By such changes, the drawbacks of examination can be brought down up to a certain extent.

2.3 Exam Reform : Why is it needed ?

a) Because Indian school board exams are largely inappropriate for the 'knowledge society' of the 21st century and its need for innovative problem-solvers.
b) Because they do not serve the needs of social justice.
c) Because the quality of question papers is low. They usually call for rote memorization and fail to test higher-order skills like reasoning and analysis, let alone lateral thinking, creativity, and judgment.
d) Because they are inflexible. Based on a 'one-size-fits-all' principle, they make no allowance for different types of learners and learning environments.
e) Because they induce an inordinate level of anxiety and stress. In addition to widespread trauma, mass media and psychological counselors report a growing number of exam-induced suicides and nervous breakdowns.

f) Because while a number of boards use good practices in pre-exam and exam management there remain several glaring shortfalls at several boards.

g) Because there is often a lack of full disclosure and transparency in grading and mark/grade reporting.

h) Because there is need for a functional and reliable system of school-based evaluation. Each of the above points is elaborated below, in separate sections, with specific recommendations for change pertaining to each. Some recommendations are called for on more than one of the above counts, and this is noted. We have also generally avoided write-ups on issues which fall squarely in the domain of other focus groups. While this report will be frank in its critique, it will avoid bland generalizations and arid theorizing, and focus on concrete proposals for improvement. It will also avoid cluttering the recommendations with cross references to earlier suggestions for reform : reminders of unimplemented educational reforms have long ceased to embarrass the powers that be.

2.4 Exit versus Entrance Exams

We should outline at the outset one criticism of board exams that we regard as unfair. Board exams (especially at the twelfth grade) are often criticized for not adequately serving the selection needs of the next level of education; and the blame for the recent proliferation of entrance exams (and for the 'coaching classes' that claim to prepare one for them) is often laid at their door. This critique arises largely from confusion about the purpose of board exams. Board exams are, and must remain, 'exit' exams– whose goal is, and should be, to certify the successful completion of a course of study. (That this certification should be of attained competencies rather than memorized content as at present, while true, should not distract us from this fact). Board exams are not, and should not be, designed as 'entrance' exams for professional courses, vocational streams, or whatever. The needs of these post-higher-secondary

courses are specialized in nature and require particu.ar proficiencies and aptitudes. Board exams, on the other hand, are designed to test a broad spectrum of learning considered to be essential by the framers of a common curriculum and to certify its completion. The two roles are essentially different. The IITs, the National Institute of Design, law schools, et al will design tests to do their job; board exams will do theirs. There is no need for competition between the two. Nor should one set try to replicate the other. The only plea one can make–and we make this forcefully in order to reduce student stress and fatigue–is that institutions in each field (e.g., engineering, law, medicine) co-ordinate with each other and design one test applicable across the nation. Requiring a multiplicity of tests for the same professional stream merely adds to students' stress and is in no one's interest–with the possible exception of coaching classes. We propose a nodal agency at the national level for general coordination, preparing the testing schedule, ensuring security, and monitoring the timely release of rank lists. Getting different end-users of tests to agree on a common core syllabus for each entrance exam should also be part of its function (and this would further cut into the coaching class business). This nodal agency however should not, we emphasize, attempt to either frame or grade the tests themselves.

2.5 The Long-Term Vision for Exam Reform

Finally, it should be noted that what we recommend below are short-term and medium-term improvements to an exam system whose roots lie in nineteenth century colonialism1. Ironing out its flaws will bring us, belatedly, into the mid or late twentieth century, but hardly into the twenty-first. In the long term (about a decade), we envision a vastly different system built upon entirely new foundations. This system would not just pay lip service to teacher empowerment but actually trust him/her to be the primary evaluator of her students (while building in safeguards such as external moderation and scaling by boards). This would also not be a one-shot measure but a continuous process.

It would extend beyond the cognitive domain and beyond pen and paper, and, hopefully, be seen by all not as a burden but as a tool for diagnosis and further learning. In this system, the primary role of boards would change radically – from direct testing at present to careful and rigorous validation of school-based, teacher-conducted, assessment. If any direct testing by boards were still to be needed, it would be of a very different type – optional, open-book, and on-demand. Implementing this vision will require a lot of education of all stakeholders, and a lot of re-training. It will need time, and above all it will need strong political will – there are several entrenched interests for which such learner-oriented change would be fatal. The short-term and medium-term reforms outlined below, therefore, should be seen as important not so much in themselves as for laying some of the groundwork for this more radical long-term change. We recognize that conventional exams can only be dropped when tested alternatives are in place, and we propose, at the end of this paper, some pilot projects for testing these alternatives. Meanwhile, it is imperative that conventional board exams do not extend themselves to other grades. Under no circumstances should board exams be extended to other grades such as the 11^{th}, 8^{th} and 5^{th} and news that some state boards have initiated such exams cause us grave apprehension. Indeed, it is our view that the tenth grade board exam be made optional forthwith. Tenth-graders who intend to continue in the eleventh grade at the same school, and do not need the board certificate for any immediate purpose, should be free to take a school conducted exam instead of the board exam.

2.6 The Learning Imperatives of the New Knowledge Societies

It is now almost a cliché to assert that the education needs of today and tomorrow are vastly different from those of the 19th and 20th centuries. But ideas usually become clichés when they are true. School education in the colonial era was designed to produce clerks for the bureaucracy. What was

taught, and what exams rewarded, was conformity and mastery of prescribed, narrowly defined content usually learnt from a single text. A questioning attitude was dangerous, and the teaching of skills other than those needed by the colonial state superfluous. After 1947, school education was extended to a wider population (though, arguably, not wide enough) and the content prescribed was partially modified to cater to the perceived needs of both nation building and the new industrial economy. But knowledge remained scarce and was viewed as such. Hence, the primary goal of education remained that of disseminating it through prescribed textbooks and the prime purpose of examinations was to test the success of such transmission. The simultaneous processes of nation building and the creation of an industrial working class required homogenizing, and hence did not put a premium on differentiation or flexibility. And the welfare of the individual learner was subordinate to this political and economic enterprise. Much before the dawn of the new 'knowledge society' in the 1990s, however, this educational model was already under stress. Contrary to expectations of early state-planners, it was the service industry rather than manufacturing that steadily grew to dominate the Indian economy and became the biggest source of new jobs. By definition the service economy involves catering to other people's varied needs in a flexible and differentiated manner – be it in hospitality, retailing, transport, insurance, or any other sector. And if standardization is the key to success in manufacturing, differentiation is the key to success in the service sector. If consistency is a key quality of an industrial worker, problem solving and lateral thinking are key qualities in a service provider (even at the humble level of a table-server). In the latter, one size manifestly does not fit all. And it calls for a very different philosophy of education. The new 'knowledge economy' – in which India has emerged as a key player and in which, beginning with Rajiv Gandhi, its leaders have placed great transformative hopes–has put the old 'transmission of scarce knowledge' educational model under even greater stress. The Internet has demonstrated that information, even useful

information, is not scarce – indeed it is freely available, often in overwhelming quantities, at the click of a mouse. What is needed is skilled processors of this information – people who can access it, sift and evaluate it (for there is a lot of chaff), sort it, and analyse it. Skilled workforce is needed to identify or deduce relationships within what seems like scattered and unrelated data. Finally, the findings need to be presented coherently and persuasively, and their application to real-life problems demonstrated. For those who can thus convert raw data into useful knowledge, jobs are there for the asking, here and overseas. Two hoary myths persist on this issue and need to be addressed. The easier one is embodied in a question posed by a member of another National Focus Group : "What world are you living in ? This bubble burst in 2000". With all due respect to this august personage, we believe that it did not – though we accept that, while its contribution to the India's economic growth and foreign exchange generation is now significant (and growing fast), its significant presence has yet to be felt across much of India, especially outside peninsular India and outside urban India. It is slightly harder to show that the imperatives of the new knowledge society extend well beyond the world of software engineers and BPO professionals. It should be stressed that much of the process outlined above – the search and sifting of raw data and its step-wise conversion into useful knowledge–is now at the heart of several traditional professions. Nor is it limited to elite professionals, such as managers, business consultants, doctors, researchers, economists, and journalists. Pharmaceutical and used-car salespersons, real-estate agents, travel agents, advocates, couriers, retailers, and, of course, personal secretaries–all require these skills to a substantial degree.6 It is for this reason that we have used the term 'knowledge societies' in the plural rather than the singular. These 'societies' or professions may have nothing in common other than the commonality of this process of 'information-sifting and evaluation'. Whether one calls this analytical thinking, critical thinking, lateral thinking, or problem-solving does not matter. (Indeed the skills needed are a

composite of these). The point is that most of these types of thinking are required in most occupations today. Yet we are hard-pressed to find a single one of these activities being required of exam candidates in Indian schools today, let alone such a composite. The negative impact of this is already being felt–in a scarcity of skilled personnel. How well are we doing in producing these problem solvers or lateral thinkers by these new and traditional industries ? Let us turn to the quintessential problem solving profession, one that Indians have done well in–software programming. NASSCOM predicts that there will be shortfall of several lakh computer programmers by 2010, and that this is the single largest hurdle the industry faces. Further inquiry reveals the reason. In a recent interview, S.A. Deshpande, head of training and recruitment at one of India's very large software companies, has this to say : "19 out of 20 graduate applicants and 6 out of 7 post-graduate applicants are unemployable. They simply lack the requisite problem-solving skills or often even any real clue as to what problem-solving means". She continues : "We don't really need engineers as programmers. We could even hire high-school dropouts if they had the right skills. We tend to hire engineers because they, unlike most other graduates, have usually learnt problem-solving along the way". If a country of over 100 crore is struggling to produce one lakh youth a year with these problem-solving skills, all is clearly not well with its education system. Nor is there much point in merely blaming college education. There is a good amount of psychological theory to suggest that if you want inquiring minds who can 'think out of the box' at the age of 21, you cannot begin to create them at age 17. You have to begin at 7, or at least at 11. We have stressed the economic importance of creating problem-solvers and rigorous thinkers because education, more than anything else, has the potential to cause upward mobility. And, in turn, well-educated manpower (and womanpower) has always been a pre-requisite for rapid productivity gains. But even if there were no economic benefits most polities and civic societies, at least within democracies, would welcome the

creation of a citizenry with a keen, questioning mind, able to judiciously process information for itself. Within the specific Indian context, it is hard to imagine the State making much headway against problems of poverty, patriarchy, and caste discrimination without large sections of its citizenry possessing such analytical and critical skills. Likewise, a lot of the solutions for India's complex social problems will need to come from creative visionaries working singly and collectively. Are our education and exam systems working to create such 'problem solving' citizens ?

2.7 Beyond Producing Clerks – Exams and Social Justice

Education remains the primary engine of upward economic mobility. Due to the pioneering entrepreneurial efforts of a few in Bangalore and Hyderabad, India is today uniquely poised to become an intellectual powerhouse in the new 'knowledge' era. Pharmaceutical and biotech research, consulting, and of course software development, all promise hundreds of thousands of high-paying and fulfilling jobs – if, however, the Indian education system can produce students with the required skill-sets and attitudes. In particular, it would have to tap students in small towns and rural areas–not merely because a larger number of 'knowledge workers' will be needed than big cities could produce but because social justice demands that the rural and small-town population be given (howsoever belatedly) the opportunity to benefit from the newer engines of economic growth. This is an immense challenge that the Indian education system faces, and we must tackle it with fresh thinking. We must discard the mandarin mentality – one that masquerades as progressive but is actually colonial in its quest. This mentality is epitomized by the remarkably candid question posed by the Education Secretary of a western state of India, after the Chair of this Focus Group had made his presentation. 'Who, then, will produce the clerks ?' the Secretary asked. Lord Macaulay would have smiled from his grave.

A more serious objection (raised by a school principal in a rural part of Pune district) deserves more careful consideration : "Today's board exams cater to all sections of the population–including those who are poorly taught, in schools without adequate facilities. How will he cope when asked to solve a problem on the transfer of momentum rather than just defining it ? Won't more students fail ? Won't more drop out ?" The question is crucial. It assumes that excellence and equity are at odds; that the former must occur at the expense of the other. Before we attempt an integrated solution in the subsequent sections, a few observations are in order in an attempt to think beyond the 'equity vs. excellence' polarity. We believe that to teach skills and create excellence, in hitherto neglected backwaters, is the way–perhaps the only sustainable way – toward real equity. Disadvantaged regions and groups are not being done a favour when pass certificates are handed out that get them nowhere – neither to a job nor to success at university. Educators should feel good not when students from disadvantaged groups and classes and regions get 'pass' certificates, but when these certificates open doors to well paying, high-skilled, satisfying jobs that permanently raise them out of poverty (Today this is not the case, and, frankly, can one really blame employers ?). We owe it to these disadvantaged regions and groups to teach them the skills needed to succeed in today's world. The real losers in a system that does not teach practically useful skills are these disadvantaged groups–the privileged will usually absorb these from their environment anyway. In the name of equity, let us not perpetuate inequity. A system of education and examination that teaches members of disadvantaged groups the requisite problem-solving and analytical skills needed by the job market is vital. Memorizing and regurgitating textbooks is not a skill needed by the job market. An exam system that encourages this type of 'learning' snuffs out creativity. As the National Advisory Committee on 'Learning Without Burden' opined :

Board examinations, taken at the end of Class X and Class XII, have

remained rigid, bureaucratic, and essentially uneducative... and mainly a source of awe because of the amount of information they demand in a manner ready for instant recall.

We will suggest below that such exams not only snuff out the joy of learning but, by doing so, encourage 'dropping out' and are, therefore, economically regressive. Exams and learning systems that require rote are unlikely to stimulate students, create interest in them to attend, or make them feel that they are learning skills useful to their later life. True learning takes place only in an environment where people feel challenged. As Socrates noted, "Education is not the filling of a vessel but the kindling of a flame". The trick is to kindle the flame, and the student will remain motivated. On the other hand, an exam system forcing students to memorize a plethora of facts, from an unattractive, dry-as-dust textbook– facts usually divorced from any conceptual framework and certainly from their frame of reference and experience–is unlikely to keep them attending. Has the system made an attempt to reflect and authenticate their frame of reference or to work through their distinctive worldview ? Or has it merely tried to stuff some half-digested information from an alien context down their throat ? The vast majority of textbooks prescribed by educational boards do precisely this. Yet we tend to attribute dropping out to 'learner disinterest', subtly shifting blame onto the learner. Could it be that the blame for this disinterest lies more with the system than with the learner ? That it lies with a system that failed even to attempt to kindle a flame ? Could it be that a more challenging regimen but one rooted in the students' realm of experience would have been more stimulating, kept them coming, and hence led to their learning lifelong skills ? (Multiply this by a couple of hundred million and we have laid the foundation for rapid upward economic mobility and higher quality of public life and creative endeavour). If we accept this possibility, excellence and innovation in school education do not stand in the way of equity–indeed it would be impossible to imagine equity without a renewed quest

for educational excellence and relevance. Of course the teaching of skills, and teaching the teachers who will teach these skills will not be easy. It will require resources, careful planning, a careful roadmap, and hard work. It will also mean trying to truly connect with students whose lived experience is diverse and different. Hence, it will require decentralization – of curricula, textbooks, and exams. The task is daunting but there is no other path. It must be done if the country as a whole, rather than islands of excellence here or there, is to move forward.

2.8 What do we suggest for Test ?

1) Repetition of identical (or very similar) questions from year to year (hence playing into the hands of coaching classes).
2) Ambiguous phrasing of questions or questions phrased as 'Write a note on...' (both of which require students to pour out all they remember from the textbook on that topic).
3) Inordinately lengthy (perhaps in an attempt, usually vain, to 'cover' all chapters of the textbook), hence allowing little time for actual thought, and discriminating against thoughtful reflection.
4) Designed to test a detailed knowledge of the textbook (including trivia and / or errors within it) rather than competencies and core Concepts Question paper sets from the most recent (March 2004)

There are also times when the fact culled from the textbook is simply wrong. The question Our highest import is from (Hong Kong, Italy, Kuwait) has no correct answer provided–at least for any year in the last quarter century. Common causes of this general malady are :

1) the examiner's desire to test familiarity with the books and crannies of the textbook rather than to test for competencies and core concepts and

2) the paper-setter's genuine confusion on what is central and what is peripheral, and what the role of the exam should be – to evaluate competencies and understanding of core content and concepts, not familiarity with obscure (and often incorrect) factual trivia. False objectification, i.e., the chopping up of unified, integrated knowledge into discrete chunks, is another frequent problem, especially in the social sciences.

Marking convenience (and excessive reverence for the content of a textbook) often leads to another shortcoming. An obsession with objectivity leads to a lack of open-ended questions even when the content demands it. Students are forced to justify a textbook assertion that is easily (and fruitfully) contestable.

Often a good question is marred by a disproportion between the few marks allotted and the vast breadth of the question. Examples of this from 2004 exams are as follows.

DSL English Communicative 1/2 : "If your credit card is more of a functional accessory while you shop or entertain in your own town, you will want a higher credit limit. Here, foreign and private banks will give you a higher credit limit".

Would this make much sense to a student outside this class ? Another passage, this time on whale hunting in the Arctic seas, describes how "the blubber is stripped off and boiled down... and can be made into food for human consumption". This may be appropriate to a question on human geography, but cannot passages that are more relevant be found to test English competencies ? The passage continues : "Both cod liver oil and halibut liver oil are given to sick children... These oils may be bought at any medical shop Even a very basic question like "The headquarters of the Theosophical Society in Madras is at (Adyar, Anna Nagar, T. Nagar)".

2.9 One Size Does Not Fit All : The Need for Flexibility

Exam systems need to be more flexible. Just as we must ensure that education and assessment systems are fair to all social groups, we should ensure that they do not discriminate against particular kinds of learners. There is a lot of psychological data to suggest that different learners learn differently, and, hence, to test all learners through a written test of the same type in subject after subject is unfair to those whose verbal proficiency is superior to their writing skills, those who work more slowly but with deeper insight, or those who work better in groups than individually.

2.10 Institution Based Assessment

While the primary mandate of this Focus Group was to suggest reforms for exams (as opposed to all assessment), we would like to make a brief plea for the importance of assessment, and hope we can strengthen it in the medium term.

1) Continuous and comprehensive evaluation (CCE) : The group felt strongly continuous and comprehensive evaluation system to be established in order to (i) reduce stress (ii) make evaluation comprehensive and regular, (iii) provide space for the teacher for creative teaching, (iv) provide a tool for diagnosis and for producing learners with greater skills. Examination should be simple, flexible, and implementable.

2.11 Reduction of Exam Stress and Anxiety

It should be remembered that examinations are artificial situations created for the convenience of the system and not the individual learner. They are relied on because more holistic assessment is usually unviable due to cost and manpower constraints. Given their artificiality and time-bound and 'one shot' nature, it is not surprising that exams in their current form will induce anxiety. Even so, the recent increases in news reports of students getting seriously

affected by pre-board or board examination anxiety and committing injury to themselves or others is disturbing. We see this stress as a symptom of the malaise afflicting exams rather than the disease itself.

As suggested above, adoption of more comprehensive and credible system of internal assessment would reduce some of the stress felt during external exams. The choice the student would have of taking two or three of his more anxiety-inducing subjects at the easier standard level, and at a time of his convenience, would also help.

In addition, we recommend the following measures for reducing exam anxiety and its often-morbid consequences :

1) A lot of stress is related to the excessive length of the question papers. Shorter exams that leave time for deliberation and periodic rest would help. The exam length (usually 3 hours per subject) should be reduced (to 2.5 hrs for higher level exams and 2 hours for standard level exams), remembering that the paper setter's quest to cover all sections of the syllabus is an illusory one in any case. As importantly, the numbers of answers expected and the quantity of response in the given time should be reduced. Exams should be set so that 95% of all students should be able to complete it and have time left for a quick review. Pilot projects should be initiated in which exams are not time bound.

2) Questions that require students to draw on two or more areas of the syllabus would also allow more comprehensive testing within lesser time, in addition to constituting good educational practice by calling on candidates to make relevant connections between materials from different chapters. (This is a much-needed skill but rarely tested in Indian board exams. If we accept Prof. Yash Pal's contention that education is all about making lateral linkages, all about creating 'an ecology of knowledge in the brain', such questions are surely necessary).

3) A shift in emphasis from 'short answers' (often requiring familiarity with two obscure lines at the bottom of, say, page 124) to MCQs designed to test real understanding of core concepts would help reduce student anxiety, in addition to allowing greater differentiation at the top end. (already discussed in earlier section).

4) Unless the school lacks a very basic infrastructure, students should be able to take the exam in their home school in order to reduce stress caused by additional travel and unfamiliar environments (discussed in a later section).

5) A shift in emphasis to testing competencies and away from memory would certainly reduce stress, in addition to aiding the validity of exams. A long-term move toward open-book exams can be envisaged and is one of the pilot programs mentioned at the end of this report. Meanwhile, candidates doing Chemistry paper should be given the periodic table and bond angle values examinees in Math and Physics should be given some trigonometric identities and other formulae which otherwise have to be learnt by rote. The focus of questions should, likewise, move to genuine applications from mere 'plug-in'-type problems. In history, questions which test whether students know where each of the Indian National Congresses met (pure rote) be replaced with questions on the significance of key Congress sessions. Questions such as Mention eight causes of the events of 1857 (4 marks) set panic bells ringing (with the student worried that she cannot remember more than five, and then bungling even these in her anxiety) and should be replaced with questions eliciting open-ended data response and analysis. For instance, in this case, three key paragraph from the 1857 Azamgarh Proclamation could be provided and students asked an open-ended question : 'Based on this extract and your own knowledge, discuss whether the events of 1857 can best be described as the Great Revolt, the First War of Indian

independence, or the Sepoy Mutiny.' This would not only be more humane and less stress-inducing, it would also call upon students to organize their thoughts into an argument and demonstrate higher-order interpretive skills.

6) Elimination of 'the term fail' : We recommend that the word 'fail' not appear on mark sheets, and be replaced by phrases such as 'unsatisfactory', or, better, 'needs more work to attain desired standards'. The word 'fail' carries a social stigma and often victimizes a student for systemic deficiencies in teaching, textbook availability, etc.

7) Elimination of the pass/fail concept by permitting repeated retakes : There is no evading the fact that the purpose of board exams is to certify the satisfactory completion of a course of study. There will always be some individuals who cannot demonstrate such satisfactory completion. They should be provided a number of chances to re-take one or more exams (within a three- or even a five-year period). Till then, they are 'working toward the certificate'. Even after the expiry of this window, they should be free to attempt the whole exam (in all subjects) again. Hence, while it is possible to not succeed in passing an exam, no one ever definitively (and permanently) 'fails'. We believe that the above distinction is meaningful, and considerably different from the current understanding of boards on the pass / fail issue.

8) The Focus Group is not convinced that boards today work (singly or collectively) toward ensuring that the pass mark represents a meaningful and carefully calibrated cut-off designed to certify satisfactory completion of a course. In some subjects in some boards, attaining the cutoff mark (30%, 33%, or whatever) is relatively trivial and does not guarantee attainment of even a minimum competency. In other subjects in other boards (or even the same board), the minimal competency desired is attained even by students

attaining 25% marks. Papers in all subjects and all boards should be designed so that the pass mark is not just an arbitrary cutoff but actually measures the attainment of desired competencies.

9) Following the principle that exams are an evil, if a necessary one, there should be no exams than are strictly and absolutely necessary. The tenth grade board exam should be made optional forthwith. Tenth-graders who intend continuing in the eleventh grade at the same school, and do not need the board certificate for any immediate purpose, should be free to (and encouraged to) take a school-conducted exam instead of the board exam.

Recent proposals of various boards to introduce board exams at various other levels of primary and secondary education, however well-intentioned, will further exacerbate the vicious cycle of over-testing and undue anxiety, and further undermine the joy of learning and discovering. We recommend that such plans be dropped forthwith. If some schools are unable to conduct fair and meaningful year-end examinations, it is because there has been little investment by boards in teacher training with a viewpoint to improving school-based assessment, and because the tight textbook– exam nexus has increasingly rendered the teacher a mere addendum to the learning process. One must work toward re-empowering the teacher and disempowering boards–not toward further extending the domain of boards into the education process.

2.12 Exam Management

In the non-academic side of exam management, there has been a significant improvement in recent years. Aided by computer technology, the whole process from registration to generation of exam tickets and generation of mark sheets has become seamless and largely error-free in many states. Most states also now release results within 45 days from the last exam, a significant improvement over the pre-computerization norm of 60–70 days. Technology

has also aided the prevention of malpractices such as impersonation (scanned photographs on both ticket and mark sheet), copying (electronic eyes), and influencing examiners (encrypted barcodes). What we list below are some 'best practices' that we recommend for adoption by all states. By its very nature, this can only be a selective list. We urge COBSE to draw up a more detailed document outlining more such 'best practices'. It would be invaluable to smaller boards and even boards with good track records could gain a lot by studying the practices of other state boards in selected areas.

2.13 Pre-Exam

1. Choice of exam centers : The travel convenience of students should be paramount here. During exams, students should not be expected to travel much more than their daily trip to their school. When a school is large enough and has the requisite infrastructure to be a centre, students should be able to appear for their exams there itself in a familiar environment. This will have the benefit of reducing stress on candidates. To prevent school-aided malpractices, the invigilation team should however be largely or entirely from another school in the locality.

In some states, like Kerala, students have a right to take their exam in their own school–hence each school is also a centre. While this should be the ultimate goal, we recognize that malpractice situations in different states are different, and several schools in many states lack the requisite infrastructure. We suggest that all schools, public and private, which possess the following facilities be authorized as centers for their own students :

- Compound wall.
- Telephone.
- Power.
- Police station in the area (may be relaxed for rural schools).
- Photocopying facility within one km (may be relaxed for rural schools).

Schools would lose the privilege of being centers if found engaging in malpractice or found incompetent in preventing it.

2. Postponement of exams : Exams should never be postponed, as it causes considerable hardship and unnecessary anxiety to candidates and undermines their faith in the system. In cases of flash teacher strikes, police and Zilla Parishad staff should be mobilized and trained as stand-in invigilators. More commonly, board exams have had to be postponed because of an unforeseen holiday observed by a community within the state. All boards should announce the schedule of exams at the beginning of the academic year through public advertisement, and all communities invited to voice their reservations to the draft schedule, if any, by the end of October. The dates would then be frozen. To prevent postponements due to paper leakage, one emergency 'replacement' set of papers should be always be at hand.

3. Post exam malpractice : By protecting the identity of candidates and examiners from each other, a lot of post exam malpractice can be checked. Maharashtra has successfully implemented a system of encrypted barcodes which hides the identity of the student (and the school she hails from) from not only examiners but also exam board employees. When this is used in conjunction with another method that many states already adopt, randomizing of exam scripts given to any particular examiner, malpractice at the level of the examiner becomes far more difficult.

4. Paper setting : This is a crucial area which requires far more attention than it does at present, and is dealt with in a separate section of this report. It only needs to be stressed here that the question/paper setters must produce the initial mark scheme for that paper in addition to the paper. Strange as this may sound, the two processes remain divorced at some boards. Subsequently, of course, the mark scheme should be edited by experts, very soon after exams and then again

re-edited in light of typical student responses–which may reveal ambiguities or errors in the question paper.

2.14 Conduct of Examinations

1. While flying squads are a good idea and, along with public awareness, have led to a decline in cheating and copying in many states–most visibly in Haryana in the last two years–they should minimize their intrusiveness in the exam process. Candidates should not be disturbed in the course of their exam and if disturbance must be caused (e.g., for mass checking of entry tickets to detect impersonation), compensatory time should be given to candidates.

2. In general, electronic surveillance by hidden electronic eyes and the use of technology such as magnetic strips on doors is less intrusive and preferable to flying squads eager to make their presence felt. Costs of renting these technological aids have fallen sharply in recent years.

3. A major source of cheating remains help from outside, sometimes even through ingenious means such as mirrors and drums. If candidates are not permitted to leave the exam centre in the first hour, and even thereafter not permitted to carry out question papers with them, most of this can be nipped in the bud as errant helpers on the outside simply would not know what answers to provide.

4. Seals on the question paper packet should be opened and signed, just prior to the exam-start, by three individuals : chief invigilator, police/security chief of the centre, and a student candidate. Likewise, answer paper packets should be sealed and similarly countersigned before their departure from the exam hall.

5. Toilets are often used by candidates as repositories of crib sheets and must be monitored throughout the exam as closely as the exam hall itself.

6. Responses to the paper just concluded should be invited from teachers for a period of 24 hours. Pre-designed forms (both physical and online) should be distributed for this purpose and teachers should return them within 48 hours of the end of an exam. They are often the best judges of the length of the paper, adequate syllabus coverage, errors, and ambiguities in questions. These views should be taken into account while creating the mark scheme.

7. One area of immediate concern is the widely varying concessions and facilities available to students with physical or learning disabilities. Some boards have not taken up this issue in earnest and need to be acquainted with more progressive measures taken by other boards. A separate Focus Group report deals with this aspect.

2.15 Transparency and Honesty in Mark / Grade Reporting

1. As a lot is at stake in exams, it is only natural that many candidates would want to be doubly sure that they have not been victims of systemic error. Exam boards should not only be transparent but also be seen to be transparent with respect to answer paper, re-grading, re-checking etc. Such requests also represent an opportunity for internal audit of systems and examiner quality. Even so, sadly, some boards view such requests as a hindrance to their functioning. At the recent Trivandrum COBSE conference, the ex-chair of an important board even opposed a recent Supreme Court decision that gave candidates the right to having question papers re-checked. "How do we know that the second examiner is not in error ?" he asked. The inability of boards to find reliable senior examiners for such re-checks should not be an excuse to deny students a right to transparency.

2. Requests for re-checking have declined dramatically in states like Kerala, Gujarat, J&K, and Karnataka, which have given students access to their

answer papers (at a charge, of course) in either scanned or photocopied form. We laud the efforts of these and other states to make their systems transparent. One can also be fairly sure that the more casual examiners in these states now do their job more diligently. Greater transparency generally leads to greater accountability and efficiency. We strongly recommend that all other states fix their systems to provide such access to students, on request, at reasonable (but not subsidized) cost.

3. Detailed mark schemes should also be made public, and posted on official websites for scrutiny, as soon as reasonably possible in the interest of transparency. Where several question papers have been used simultaneously (to prevent malpractice), they need to be standardized for the level of difficulty, and scaling done if one is appreciably more difficult than another. This does not happen at several boards. One response from the board chair of a northern state is worth quoting : "The same paper setter produced all five sets on the same day, so we assumed they were of comparable difficulty".

4. Enough time (at least two weeks) should be provided between the delivery of scanned/ photocopied answer papers and the end of the period for appealing a grade. All re-marking should be done by experienced examiners. We suggest the following : if the first re-mark results in a total mark change of less than 5%, the initial mark awarded stands; if the change is between 5 and 10%, the new mark stands; and if the discrepancy is greater than 10%, it is sent up to a high-level examiner (preferably one involved in the preparation of the mark scheme) for final arbitration. If the final mark change by more than 5%, there has clearly been a slip-up on the part of the board and, as a gesture of goodwill, the re-checking charges should be refunded to the candidate. (The argument that they should be

happy that their marks have gone up, and should not care about the minor cost, is not germane to the issue).

5. To prevent frivolous grade-appeals, boards should reserve the right to rise as well as lower marks/grades if the deviation upon re-marking is found to be greater than 5%.

6. All of the above are not alternatives to the creation and maintenance of sound systems of examiner moderation, but just additional safeguards. At least 10%, and preferably 20%, of each examiner's output should be sent up for moderation, and, likewise 10%– 20% of each moderator's output sent up to a senior moderator. Examiners whose marks are found to correlate poorly with that of the moderator's ($r < 0.8$), or where the absolute deviation exceeds 10%, should be fined, as is the practice in Karnataka, and barred from future examining. The entire output of 'failed' examiners, more importantly, should be re-marked. Statistical methods to test and adjust for inter-examiner variation exist and should be employed.

7. The above point (6) presupposes that examiners are volunteers eager to do a good job. This can only happen if they are paid a fair wage for their important work. The practice of forcing teachers to examine is 20 highly unlikely to lead to good examining and should be abandoned forthwith. Furthermore, it should be recognized that all good teachers do not make consistent examiners and vice versa. If boards pay examiners better–and we recommend a rise in daily wage from the low Rs. 100 or 125 per day by a factor of two or three here, not 10% or 20%–and weed out poorly motivated examiners, many of the core problems will get solved. (Given that most state boards in India are in good financial health– one small state even boasts of an accumulated corpus of Rs. 84 crore–funds should not be a problem). This higher payment should, however, be linked to the level of

correlation between the examiner's mark and the senior moderator's. Promotion to rank of moderator or senior moderator should also not be merely a function of seniority but merit–as measured by his / her level of correlation. Special awards for especially conscientious examiners should also be instituted, just as for excellent teachers.

8. If, as we recommend, state boards introduce more open-ended and free-response questions and eschew false objectification, there would have to be specialist examiners trained to evaluate such questions. In such cases, question-by-question marking is preferable to one examiner marking the entire answer paper. Some states already do this.

9. It is recommended that examiners generally grade papers at regional centers set up for the purpose and not at home. A limit of twenty-five scripts a day per examiner should be imposed to prevent error due to fatigue.

10. Honesty in mark sheets : While the recent debate around the 'marks or grades' issue has been regrettable, as it has focused everyone's (and the media's) attention on just one aspect of exam reform, grades do have one clear advantage over marks. They are more honest. Given the quality of the average examiner (often coerced into marking and always poorly paid), the ambiguity of the questions, and the lack of moderation systems in most boards, the standard error of the mark awarded is high. It is therefore much more honest to declare a grade (say 70–80% =B) than to award a mark (say, 74). Grades also have some other minor advantages over marks. For instance, automatic re-grading of exam scripts can be confined to those students currently at the top end of the lower grade, that is, students for whom an error is most likely to have a negative impact. They may also play some role in reducing stress and in eliminating the 'top rankers' game so dear to the media and coaching classes. At the same time, we should

recognize that grades are not the panacea that some of its champions have made them out to be, and a transition from marks to grades is a minor (if worthwhile exam reform at best. We laud the work of NCERT, CBSE, and the Kerala and Karnataka boards in popularizing the virtues and reliability of grades among the general public, even at the risk of negative media publicity. Even more will be needed to convince end-users, especially universities, of the value and necessity of grades. The issue of whether grades are to be based on absolute or relative scales and, if the latter, whether one uses percentiles, stanines, or whatever needs to be resolved by consensus among boards. Standardization of a nine-point grading scale, for both 10th and 12th grade exams is also needed in order to offer inter-board comparability of results. Till such time as this consensus is reached, we recommend that marks be reported alongside grades to avoid sowing confusion.

11. Transparency and fairness in mark sheets : A reform which we believe to be of at least equal importance (as the issue of replacing marks by grades) is a fuller disclosure of how the student fares relative to his or her peers. Now, with computerization of registration and grade reporting, it is possible to present a wider range of performance parameters on the mark sheet absolute marks/grades, percentile rank among all candidates of that subject, and percentile rank among peers (e.g., rural schools in the same block). Particularly the last parameter, we believe, is a crucial test of merit. For too long in India, we have reduced merit to a single mark per subject and a single overall percentage. Merit is a rather more complicated concept. Can we honestly assert that two students who both attain 75% in their board exams but with one having attended a school in South Mumbai and another school in rural Mulshi are equally meritorious ? Has the latter not had to overcome greater systemic odds ? School boards cannot force university

admission committees, or the job market, to consider these factors. But printing this data on the mark sheet constitutes a start toward a fairer definition of merit.

The examination system went through different reforms. So, we have to study the examination reforms. The examination reforms movement in India is as old as her independence. After independence various committees and commissions had been appointed by the Government of India in time to time to study the problems of Education including examination system and to suggest recommendations.

The University Education Commission (1948–49), the Secondary Education Commission (1952–53) and the Education Commission (1964–66) had suggested important reforms in the examination system. In addition to those reforms various provisions had also been made by National Education Policy (1986) which was further modified in 1992. Some of the important examination reforms suggested by various committees and commissions which have relevance today are given below :

2.16 Examination Reforms suggested by the University Education Commission (1948–49)

The University Education Commission chaired by Dr. S. Radhakrishnan strongly protested the system of essay type examination. The commission said "we are convinced that if we are to suggest one single reform in the University Education, It should be that of examination. If examination is necessary, a through reform of these is still more necessary. The commission has made valuable recommendations for the improvement of examination system and some of which are given below :

- The essay type examinations are to be replaced or supplemented by the introduction of the objective tests.

- The work done by the students all through the year should also be taken for evaluation of the student's performance and least one third marks should be reserved for it.
- There should be one public examination at the end of each of the three year degree course and not only are examination at he end of three years.
- Nobody should be appointed as on examiner unless he has five years of teaching experience in the subject.
- Viva-voce examination should be held to test the competence of candidate in general knowledge.
- The system of grace marks should be abolished.

These recommendation of the commission (1948–49) relate to University Education only. However, it is apparent that there are equally important for the examination system of the school stage.

2.17 Examination reforms suggested by the Secondary Education Commission (1952 – 53)

Secondary Education in the State which marks the completion of education for large majority of people. Secondary schools supply teachers to the primary schools and students to universities. An inefficient system of examination at the secondary stage is bound to affect adversely the quality of education at all stages. Keeping these considerations in view, the Govt. of India appointed Secondary Education Commission under the chairmanship of Dr. A. L. Mudaliar to study the problems o secondary education including examination system and to suggest measures or its reforms.

Teachers have to spoon feed their pupil rather than habits of independent study. The commission suggested some reforms in the examination system. Some of the important ones are given below :

- There should not be too many external examinations.
- The subjective elements in the essay type examination should be reduced as

far as possible by reducing objective tests for academic achievement of the student.

- Internal tests and the school records should be taken into consideration for the final evaluation of the pupil.
- The question should be such as to discourage cramming and encourage intelligent understanding.
- Evaluation therefore should be continuous and comprehensive. The grading system should be introduced in place of the traditional marking system.

It is apparent from the above decision, Radhakrishnan Commission and Mudaliar Commission have basically pointed out the same defects of the examination system in India.

2.18 The Operational Steps in the Management of Public Examinations in India a the School Stage – A Theme Paper presented in a NCERT Seminar

The paper focused on the following points :

- Announcement of examination.
- Selection of centre.
- Conduct of examination.
- Scoring of scripts.
- Certification.

Regarding examination system the commission observed that both the internal and external examination are intended to test mainly the academic attainments of students. They can not evaluate the emotional and social aspects of the student, his physical and mental health – all round development of his personality. Moreover, these can not even evaluate correctly the intellectual attainments of the student in higher educationl. The examination today is dictated by the curriculum. Students assess education in terms of success in examination.

CHAPTER – III

METHODOLOGY (1) – GRAPHICAL ANALYSIS

CHAPTER – III
METHODOLOGY (1) – GRAPHICAL ANALYSIS

3.1 Introduction

Examination is an important phenomenon in the education system. Our education system is examination -oriented. Teaching, learning and assessment go side by side & integral part of the system. Examination system is a very strong indicator of the effectiveness of education. It is increasingly observed and felt, the present system of education is failing in its goal of knowledge building and expected the level of competencies, naturally the accusing finger points towards the ineffective examination system. Many a time attempts have been made to outstrip this system of education but because examinations fulfill many educational and social responsibilities, hence the great need to reform the examination system instead of doing away with it.

A glance through the pages of educational history of our country would bear out that although suitable efforts have been made of thinker with examination system yet the efforts in the direction of examination reform, have largely remained unsuccessful. This is the main reason why even after a century, it is being increasingly felt that our examination system is ill-serving the purpose it should have served, and that it needs drastic overhauling in the present circumstances.

The function of examination should be to analyzed and judged as to what extent a particular student has achieved and acquired knowledge or skill in a specific field of his education and growth. On the basis of the examining agency, examination is of two types – internal and external on the basis of method of examining. The examination is of three types – oral, written (free answer type : essay and short answer and structured answer type : objective type) and practical.

Sampling is a technique and useful in research work. It is advantageous, economical and time consuming to deal with the population. It is not easy to select a sample for a research work. It depends on the nature and problem of the study concerned correct procedures should be followed while selecting a sample according to the requirements of the investigation, otherwise accurate situation can not be obtained to yield expected results and whole investigation may be invalid.

3.2 Methods and Tools of the Study

The following are the methods and tools used in the study.

Types of Research : The present research is a purposive survey. It intends to find out the dimensions regarding examination system.

Stage of Education : The researcher considered only 1st year degree college level of the education system.

Sample Size: The researcher conducted the test on 600 samples for calculating graphical analysis for highlighting the present scenario of examination system.

Area : The researcher surveyed both urban and rural areas.

Number of College : The researcher surveyed on students of 14 colleges in West Bengal

Dimension: The researcher had taken some of the dimensions related to the degree examination system.

Reliability :

The researcher followed the Test-Retest reliability measuring method. Test-Retest reliability was estimated over 100 same sample and interval between test and retest was 30 days. Reliability co-efficient (r) = 0.82.

Validity :

In this research all the items are related to the present examination system because researcher has been study the related literature and developed his research items. So, regarding this aspect the test has been content and construct validity.

Tools used :

The present researcher had prepared a standardized questionnaire of fifty items for the study which was divided in ten dimensions.

3.3 Development of the Tool

1. The researcher studied the present examination system.
2. He selected Likert type scale constructing procedure which is simple, easy to construct and may be as reliable as other types of attitude scales.
3. Then he prepared an item pool.
4. From the above item pool the researcher selected 50 items so that it represents the whole item pool.
5. The items were edited to suit their nature for the Likert type scale.
6. The 50 selected items or statements were presented to experts for judging appropriateness, pin-pointedness, language elastration etc.
7. From their reviews and opinions the investigator modified some statements.
8. Finally the 50 statements were organized in which each statement having 3 response alternatives and instructions were also written down in the front page of the test booklet.
9. Each statement has three alternatives which are agreed, disagreed and no comments. They are assigned the values as disagreed 3, agreed 1 and no comments 2.
10. Then he prepared a worksheet and analyzed the data with the help of computer.

3.4 Conclusion from Graphical Analysis

The students supported five dimensions and not supported five dimensions. They are as follows :

Supported Dimensions

1) Need of improvement of examination.
2) Evaluation of co-curricular activities.
3) Government policy.
4) Problems regarding examination.
5) Administration of examination.

Not Supported Dimensions

1) Curriculum objectives
2) School's internal examination
3) Feedback and impact
4) Assessment of pupil's attitude
5) Evaluation results

3.5 Standardization of Test Items

Q. No	Mean High	Sd1 High	Mean Low	Sd2 Low	t-test
1	1.98	0.91	1.45	0.97	3.57
2	2.34	0.92	1.88	0.90	3.16
3	1.98	0.91	2.10	0.97	0.81
4	2.28	0.97	2.08	0.99	1.28
5	2.50	0.84	1.76	0.96	5.40
6	2.04	1.01	1.88	0.96	0.99
7	1.82	0.98	2.34	0.89	3.35
8	2.22	0.84	1.90	0.93	2.35
9	2.42	0.91	2.00	0.95	2.88

Q. No	Mean High	Sd1 High	Mean Low	Sd2 Low	t-test
10	2.20	0.93	2.18	0.96	0.13
11	2.26	0.92	1.85	0.89	2.81
12	2.18	0.94	2.22	0.93	0.27
13	2.02	0.96	1.60	0.89	2.77
14	2.26	0.92	2.10	0.89	1.10
15	2.22	0.91	1.80	1.01	2.82
16	2.30	0.89	2.10	0.97	1.39
17	2.02	0.91	1.60	0.86	2.91
18	2.16	0.98	1.70	0.95	2.94
19	2.02	0.91	2.22	0.86	1.39
20	2.42	0.88	1.88	0.96	3.77
21	2.22	0.91	1.92	1.01	2.01
22	2.34	0.92	1.88	0.90	3.16
23	1.96	0.99	2.26	0.94	1.90
24	2.02	0.91	1.60	0.86	2.91
25	2.54	0.76	2.28	0.88	2.11
26	2.10	0.91	1.98	1.00	0.81
27	2.42	0.91	2.00	0.95	2.88
28	2.78	0.68	2.10	0.97	5.91
29	2.36	0.90	1.62	0.81	5.29
30	2.74	0.63	2.10	0.95	5.95
31	2.18	0.96	2.06	0.96	0.78
32	2.58	0.76	1.96	0.97	4.92
33	2.36	0.88	2.26	1.56	0.58
34	2.48	0.76	1.82	0.96	5.22

Q. No	Mean High	Sd1 High	Mean Low	Sd2 Low	t-test
35	2.70	0.71	2.18	0.92	4.45
36	2.54	0.76	1.88	0.92	5.30
37	2.64	0.69	2.00	0.88	5.64
38	1.82	0.98	2.34	0.89	3.35
39	2.40	0.76	2.18	0.87	1.80
40	2.84	0.55	2.14	1.03	7.09
41	2.10	0.95	1.70	0.89	2.66
42	1.62	0.85	1.25	0.90	2.70
43	2.10	0.95	2.10	0.89	0.00
44	2.02	0.96	1.60	0.89	2.77
45	2.06	0.96	1.70	0.93	2.36
46	2.16	0.98	2.10	0.95	0.38
47	1.66	0.87	1.80	0.93	1.00
48	2.34	0.82	1.84	0.96	3.71
49	1.96	0.95	1.96	0.97	0.00
50	2.70	0.65	2.08	0.92	5.72
51	2.02	0.96	1.76	0.89	1.72
52	2.40	0.86	1.82	0.94	4.17
53	2.56	0.79	1.92	0.92	4.99
54	1.92	0.83	2.02	0.87	0.76
55	2.06	0.96	1.70	0.93	2.36
56	2.12	0.92	2.04	0.95	0.54
57	2.38	0.81	2.10	0.95	2.12
58	2.64	0.75	1.70	0.86	7.78
59	2.84	0.55	2.14	1.03	7.09
60	2.42	0.88	1.88	0.96	3.77
61	1.62	0.85	1.64	0.90	0.15

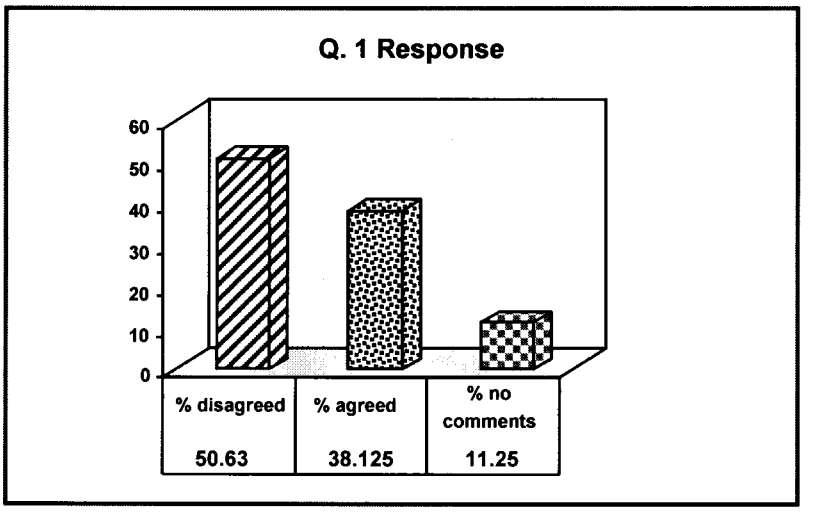
Q. No	Mean High	Sd1 High	Mean Low	Sd2 Low	t-test
62	2.22	0.84	1.90	0.93	2.35
63	2.06	0.96	2.22	0.93	1.05
64	2.24	0.92	1.90	0.95	2.30
65	2.80	0.57	2.02	0.96	7.87
66	2.88	0.48	2.36	0.88	6.25
67	2.30	0.93	1.88	0.96	2.80
68	2.86	0.50	2.04	0.95	9.32
69	1.66	0.87	1.30	0.93	2.56
70	2.16	0.98	1.70	0.95	2.94

Out of 70 items only 50 items have significant mean difference between the high scoring and low scoring groups. These items are taken for the questionnaire.

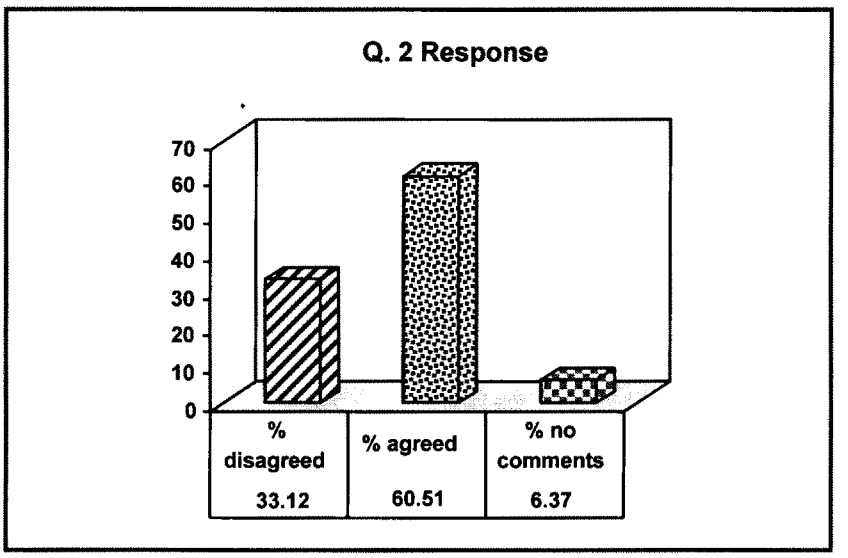
3.6 Analyses and Interpretation

3.6.1 Graphical Representation of Different Statements

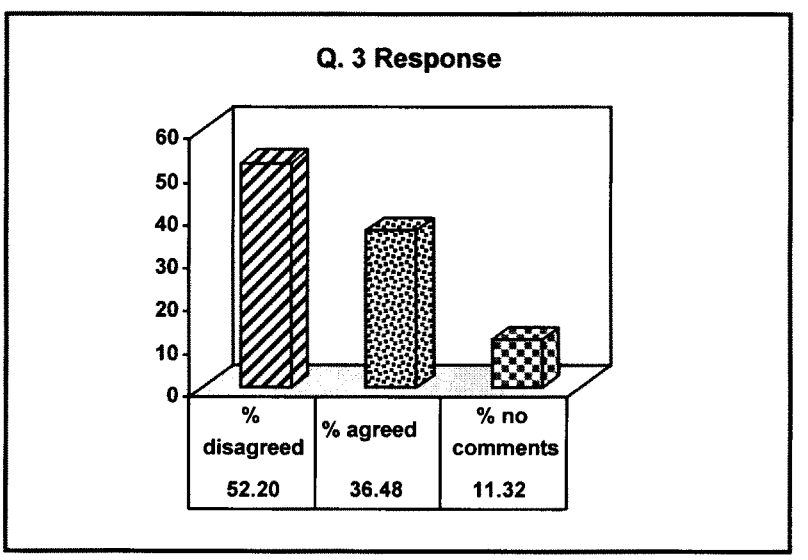
1. The present examination system measures the ability to apply the content knowledge in real situation.



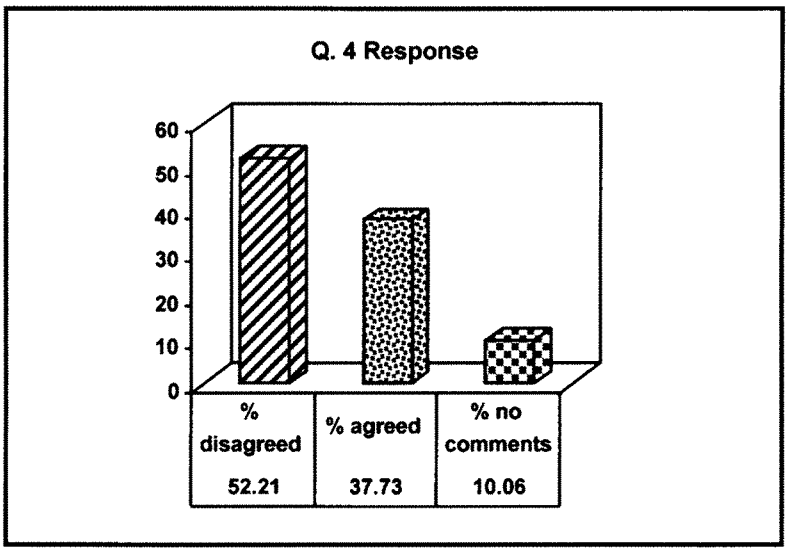
2. The present examination system measures the ability to percept.



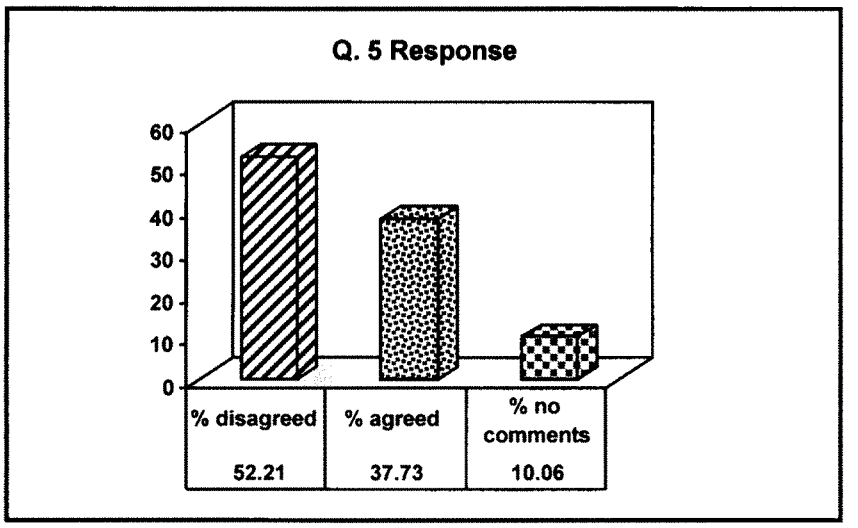
3. The present examination system measures the ability to think independently.



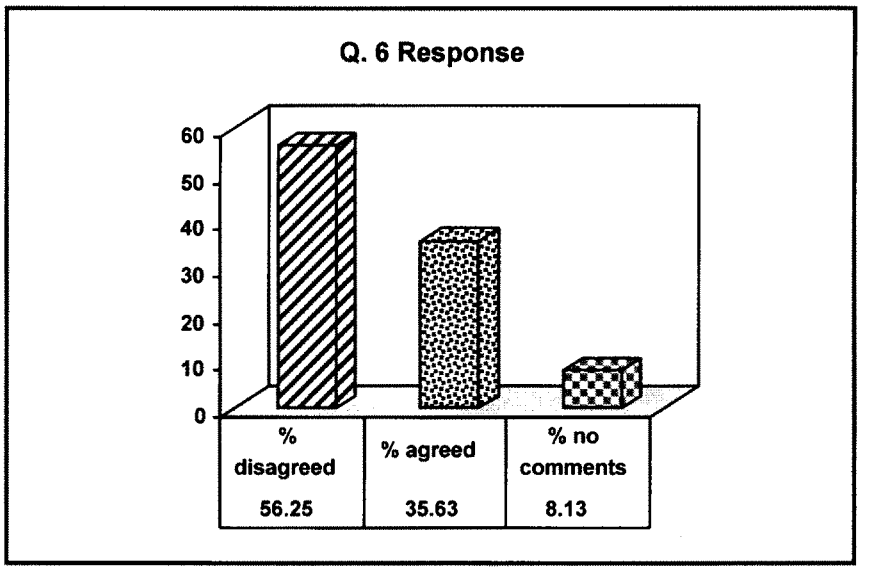
4. The present examination system increases the mental ability.



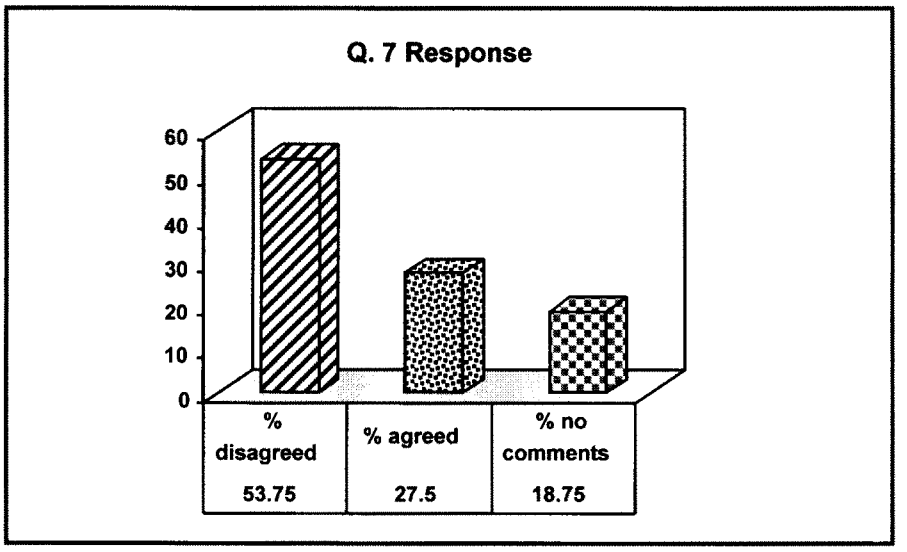
5. The present examination system measures the development of moral value in students.



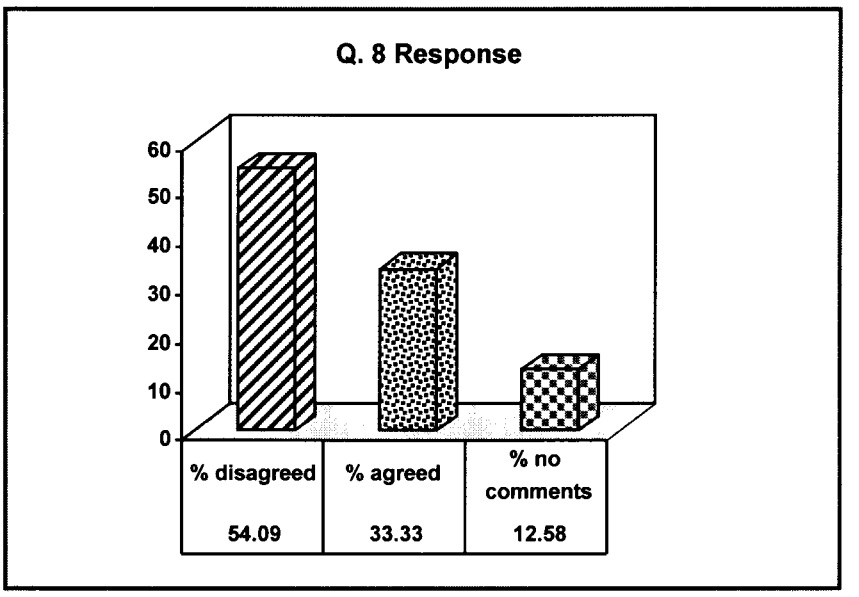
6. The present examination system evaluates the abilities properly.



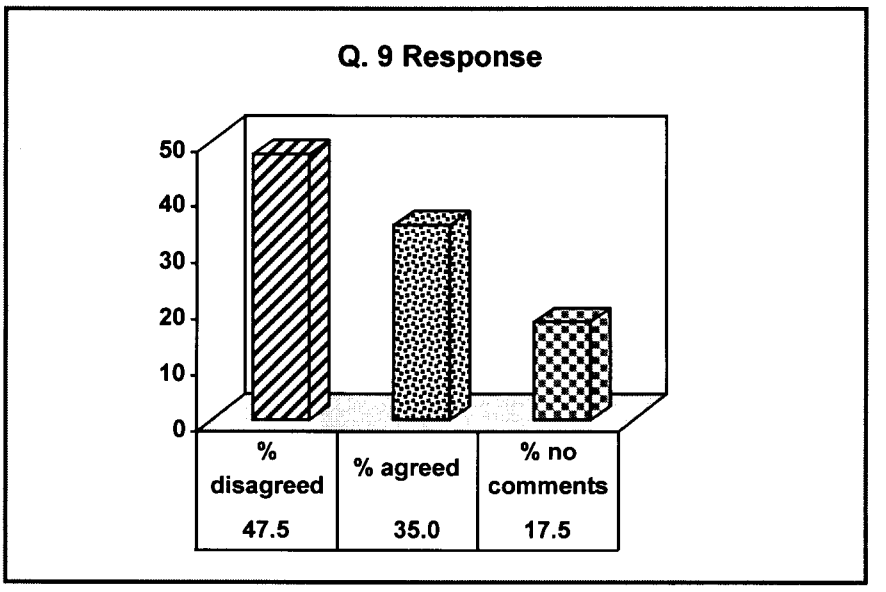
7. The present examination system can differentiate the intellectual ability among the students.



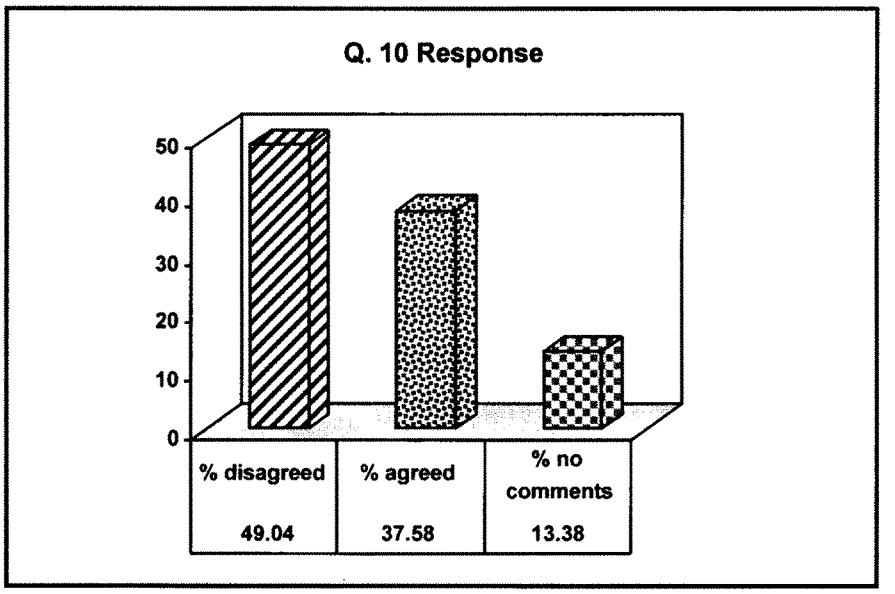
8. The present examination system helps to select the proper carrier.



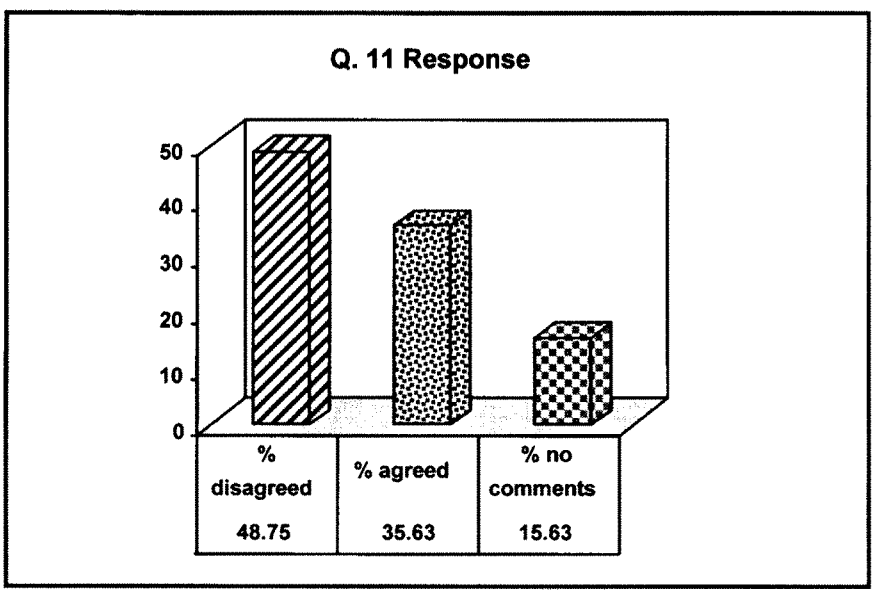
9. The present examination system helps to find-out the weakness in the acquired knowledge of the students.



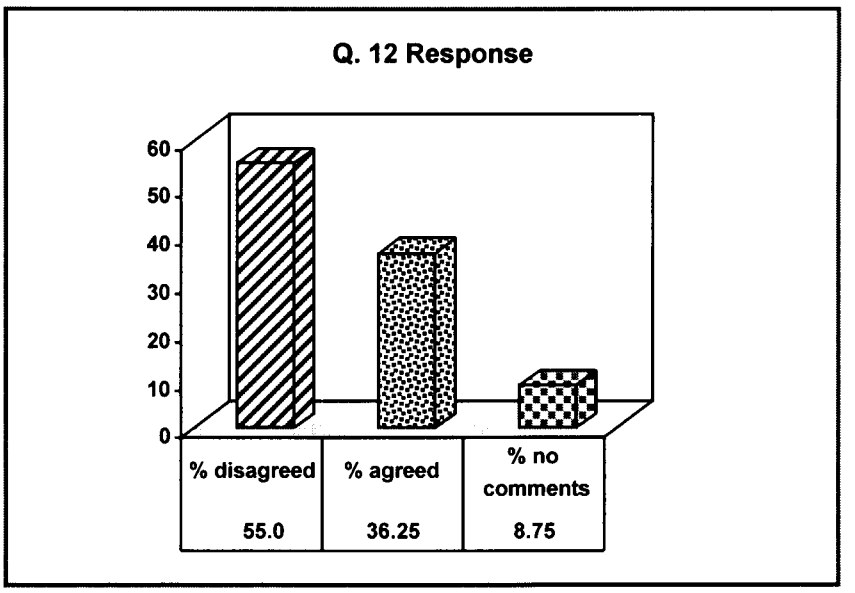
10. The present examination system gives an idea about the student's present state of education.



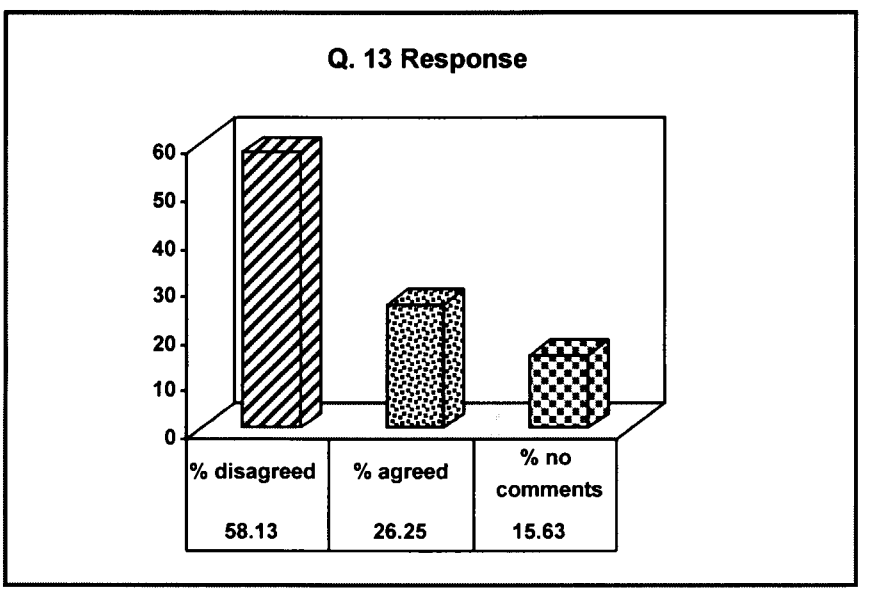
11. The present examination system helps in all round development.



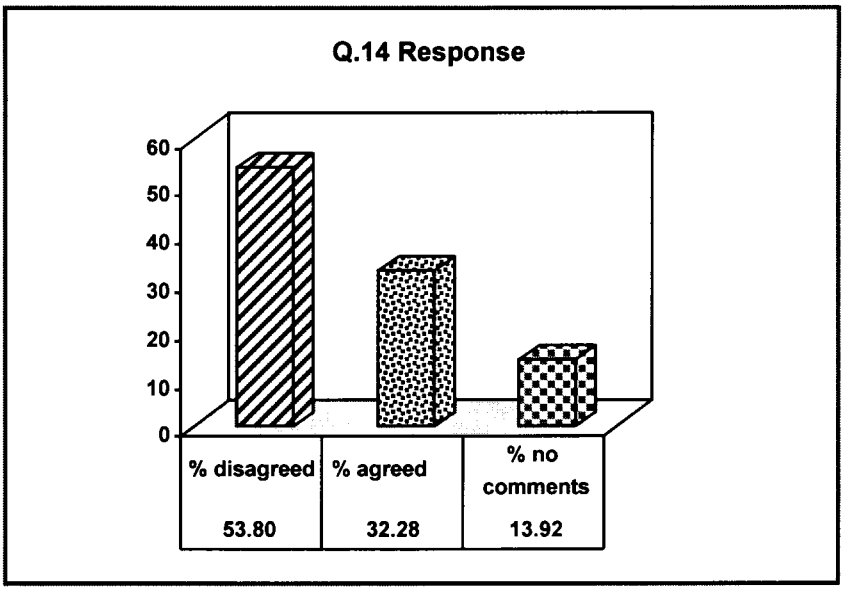
12. The present examination system helps to develop self-consciousness.



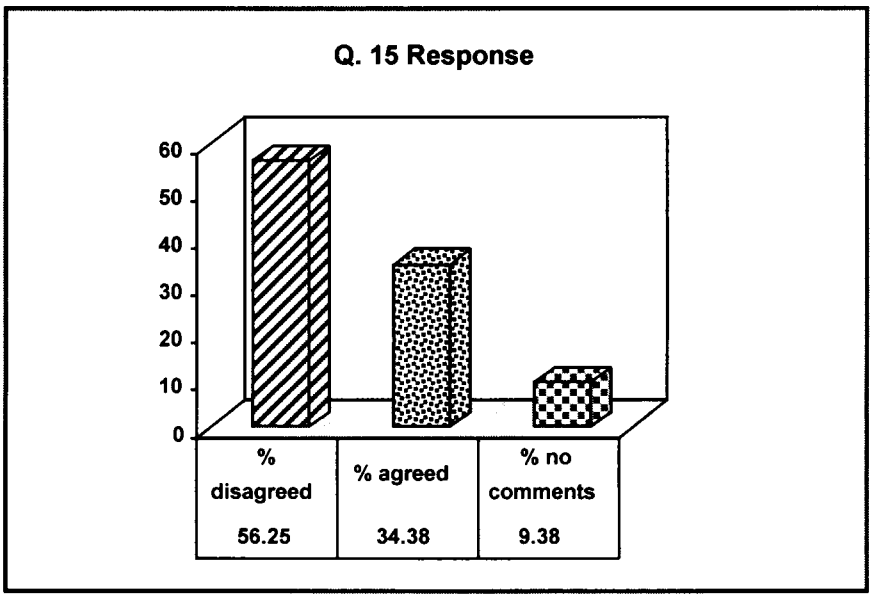
13. The present examination system is faultless.



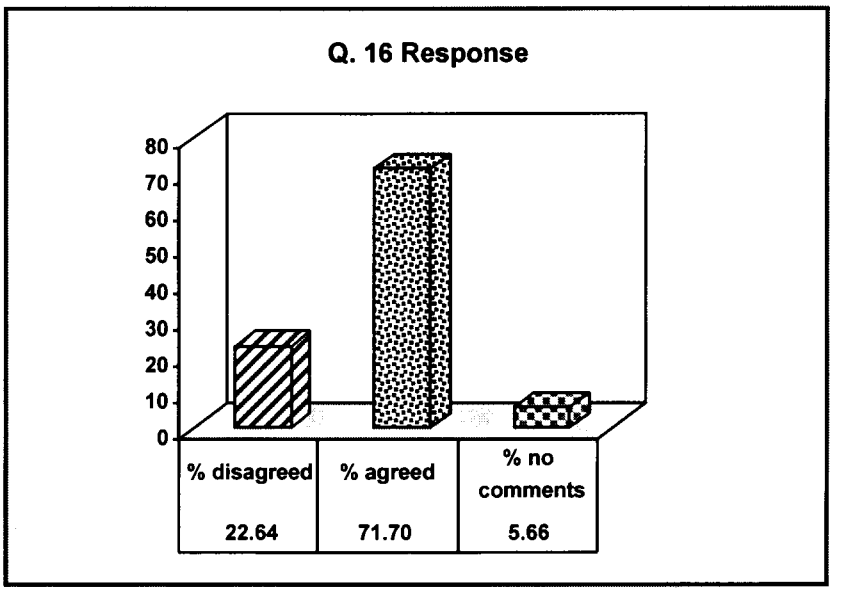
14. The present examination system helps to reduce 'drop-out'



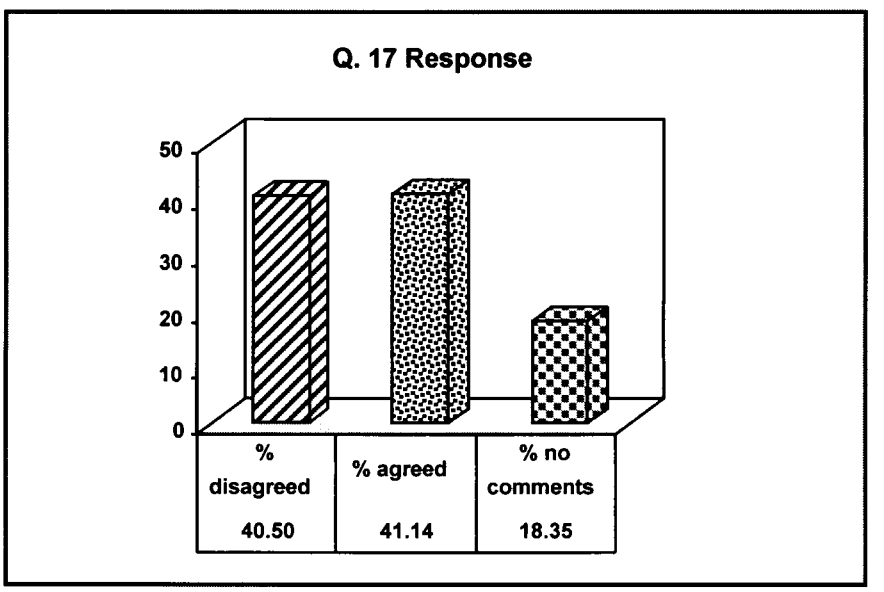
15. The present examination system able to eradicate 'exam phobia'.



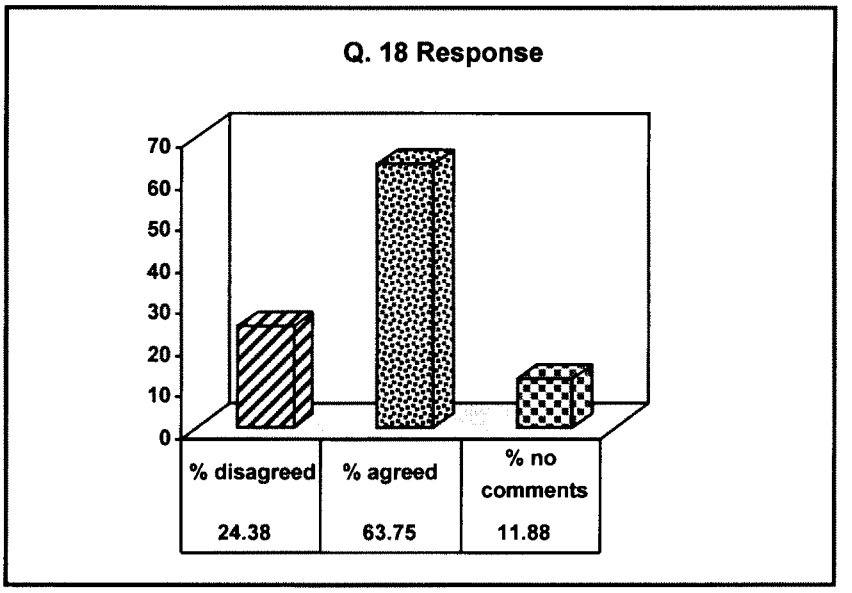
16. The present examination system should be improved.



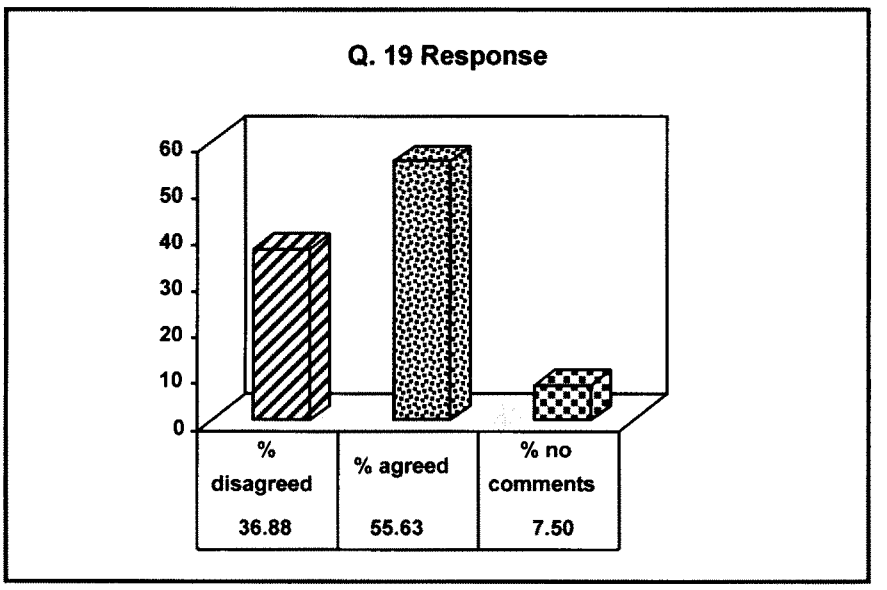
17. Replacement of the present examination system with the continuous evaluation system is justifiable.



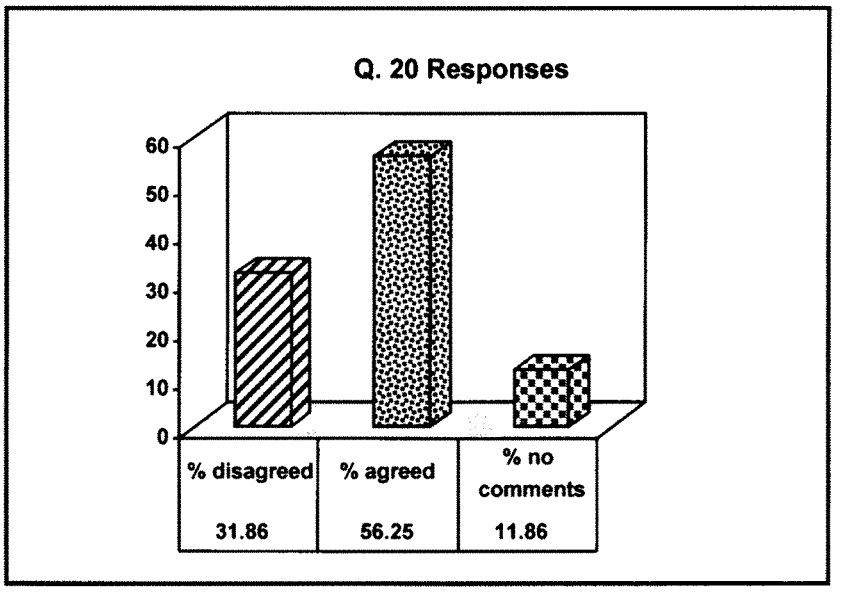
18. Measures should be taken to reduce the mental pressure of the students in examination system.



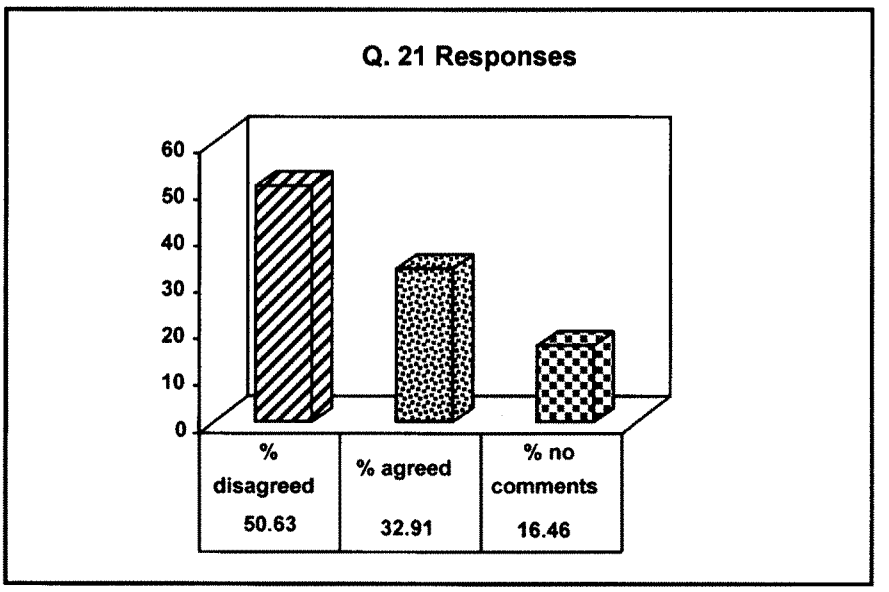
19. In present examination system, the gradation system is justifiable.



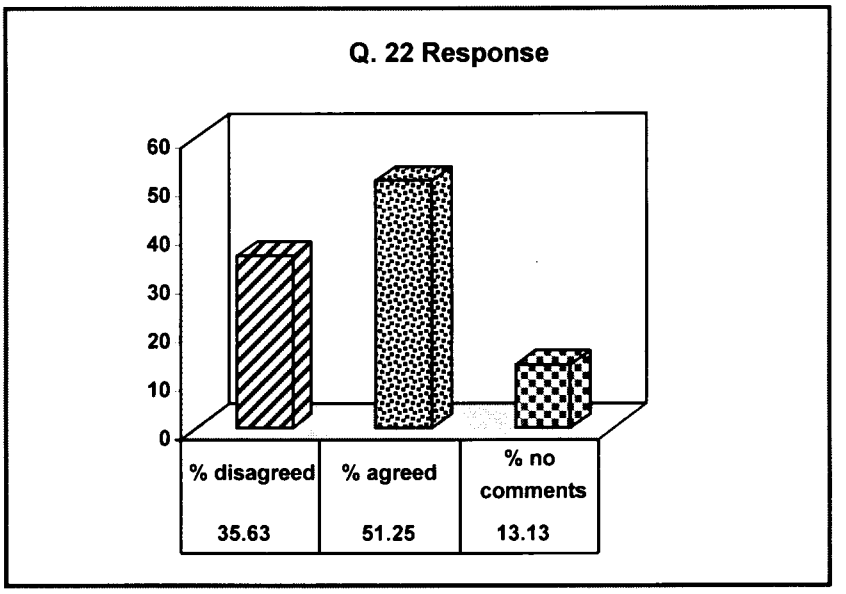
20. Steps should be taken to prevent malpractices.



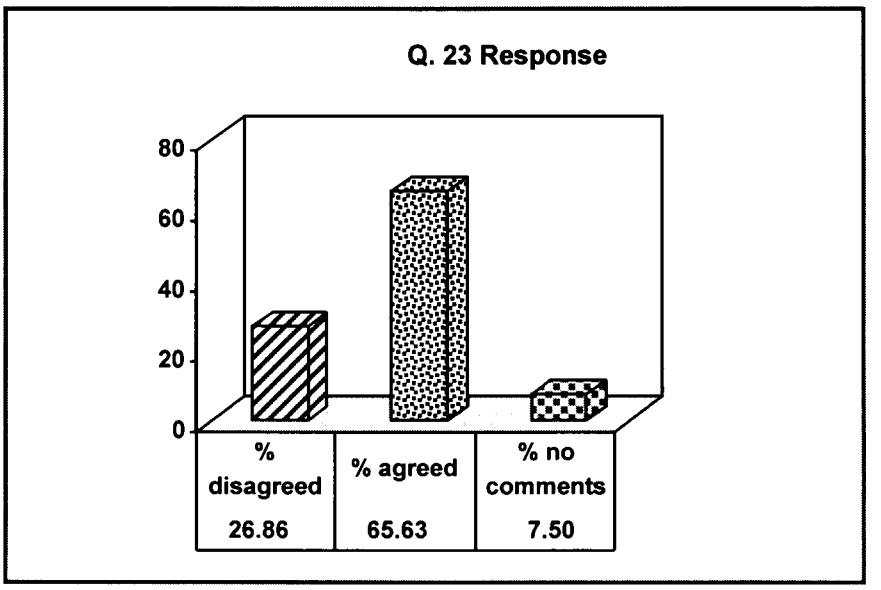
21. The present examination system evaluates the co-curricular activities too.



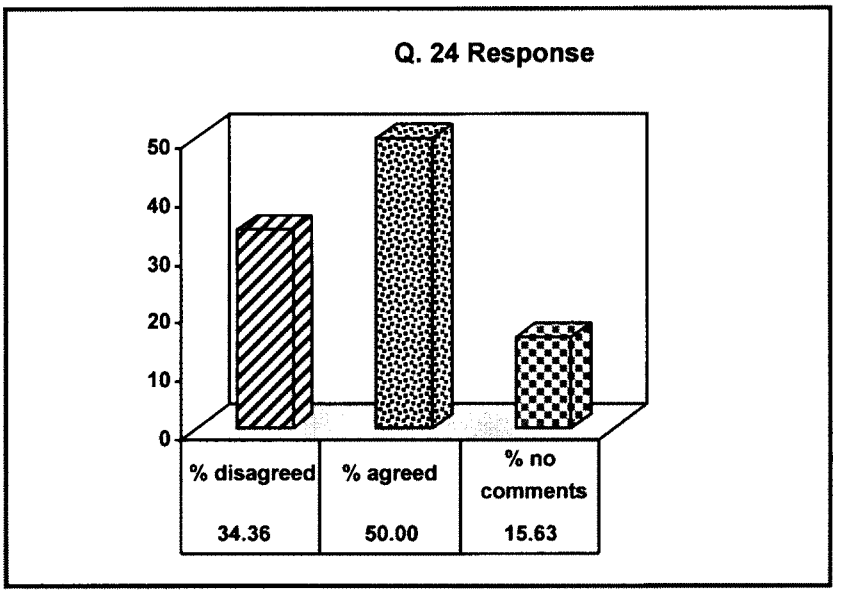
22. Co-curricular activities help to develop personality of a student.



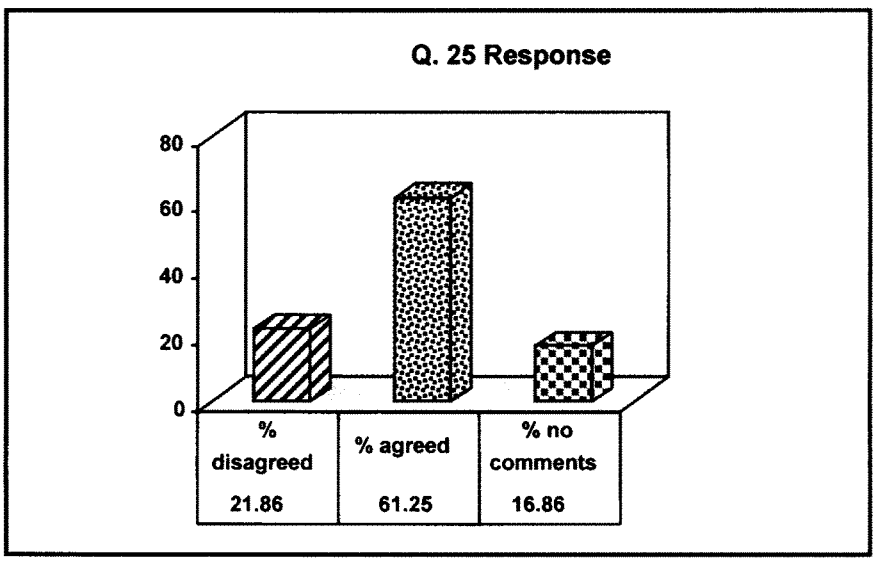
23. Co-curricular activities help to develop teaching – learning process more joyful.



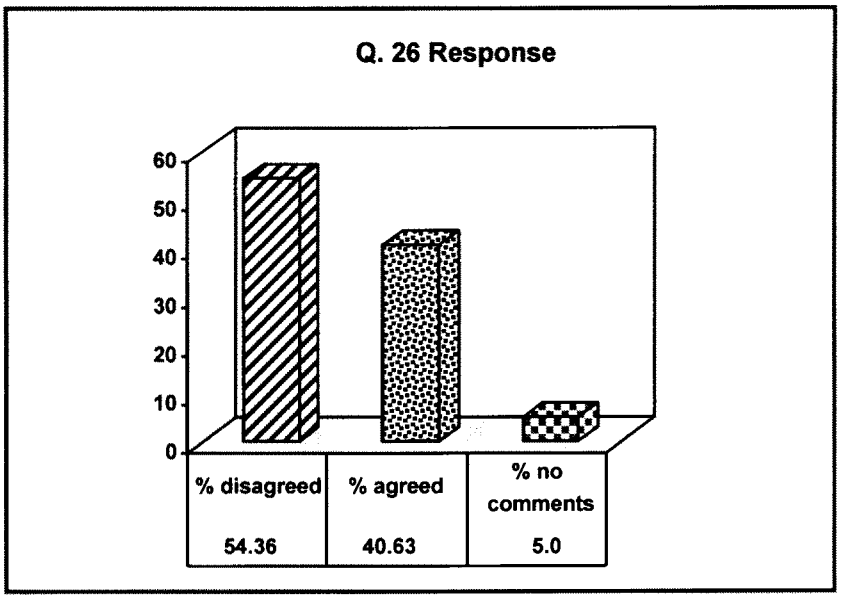
24. Co-curricular activities help to develop social qualities of a student.



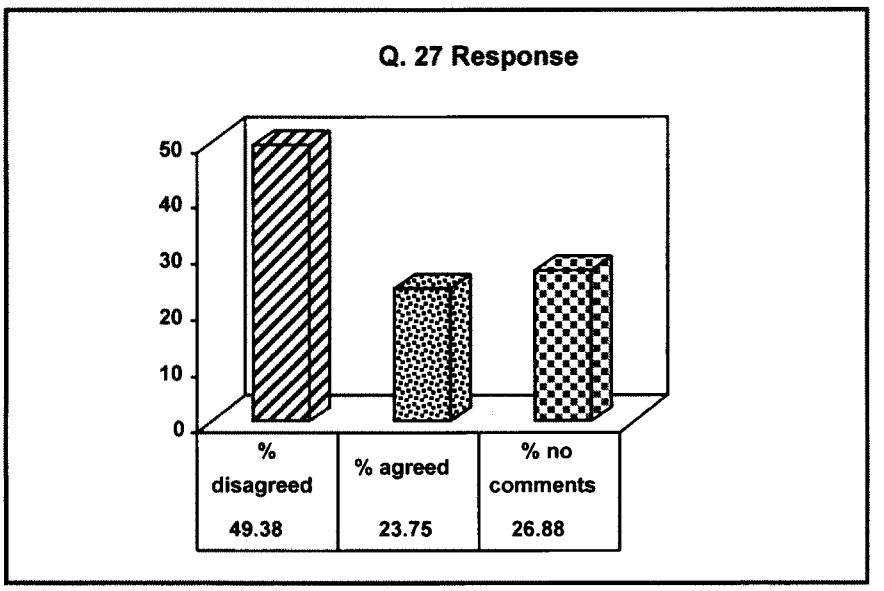
25. Co-curricular activities develop the ability to work co-operatively.



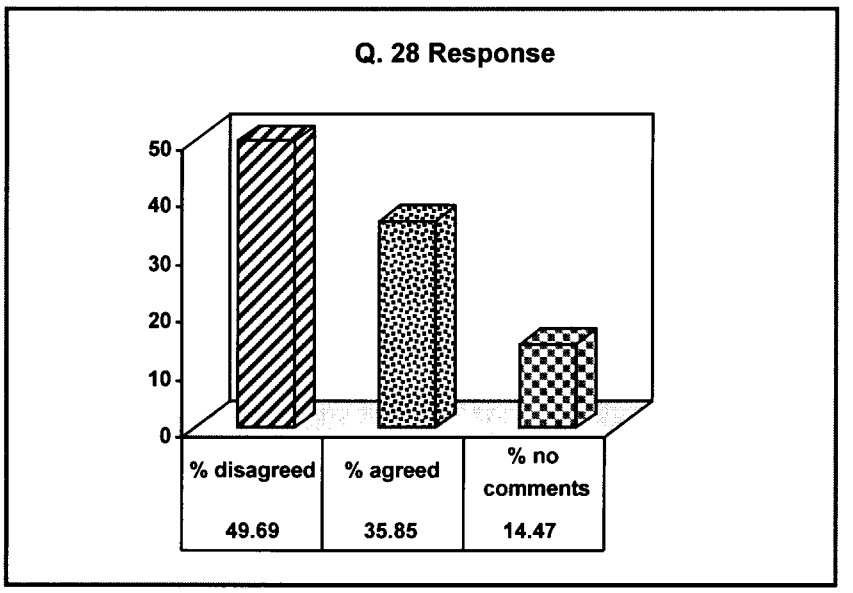
26. The present examinations increase the interest to learn and know more.



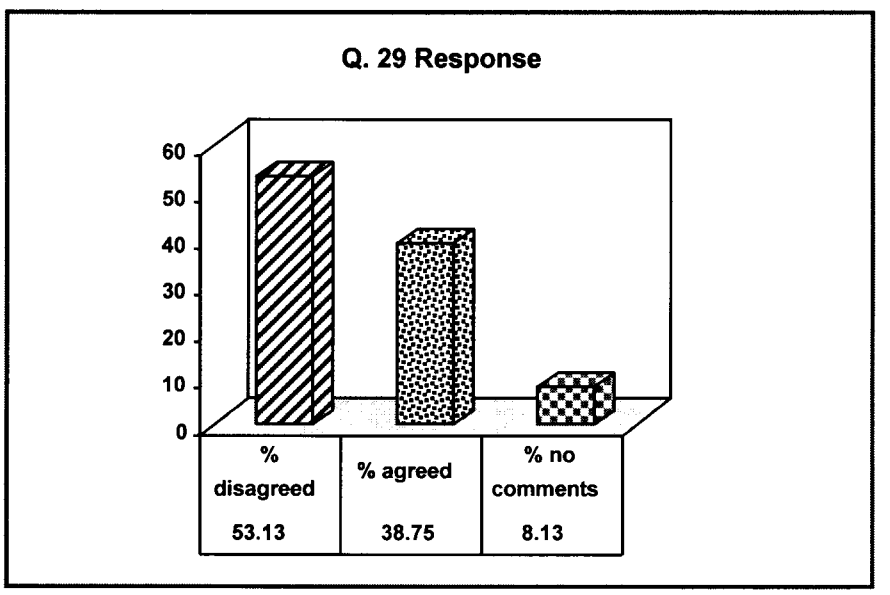
27. The present examinations intensify the motivation.



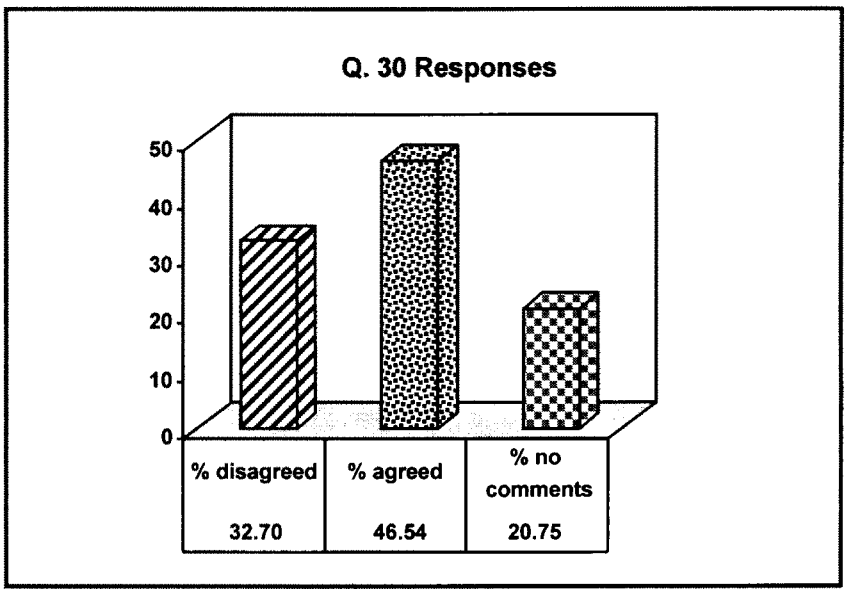
28. The present examinations help to express oneself.



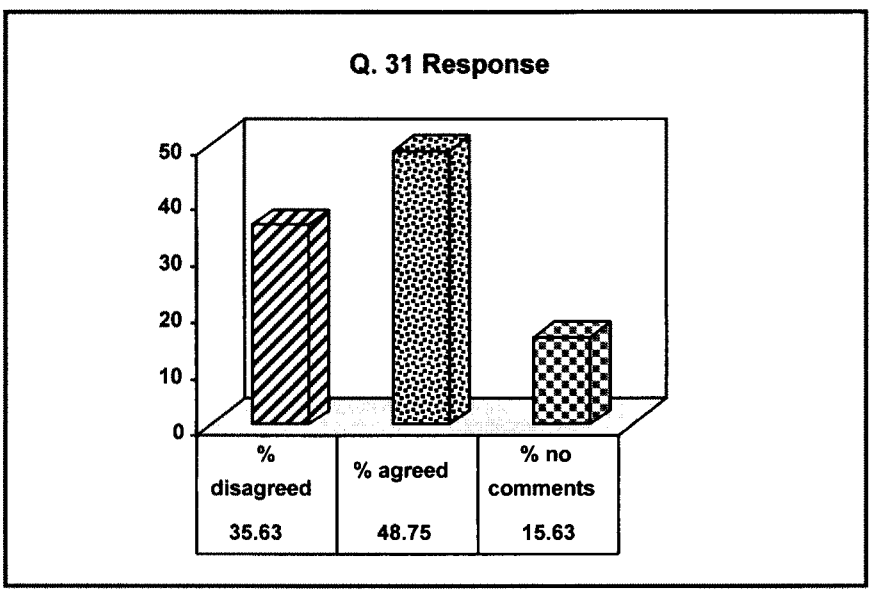
29. The present examinations help to fight against superstition.



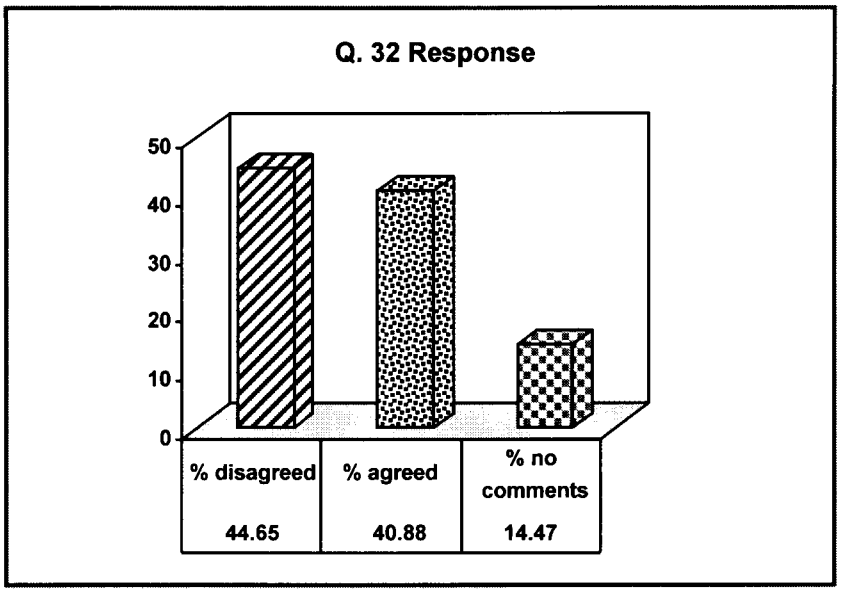
30. The present examinations help to develop independent thinking.



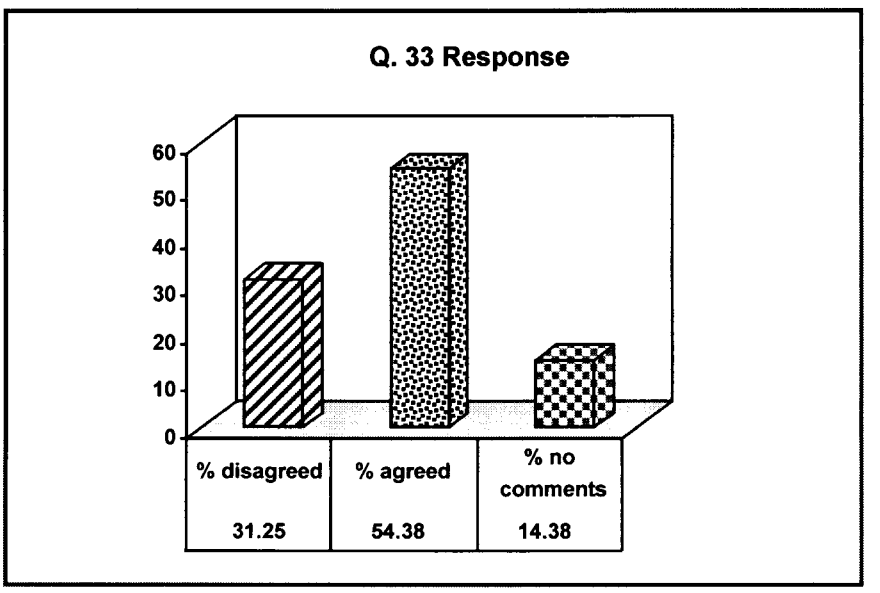
31. Semester system of examination is convenient.



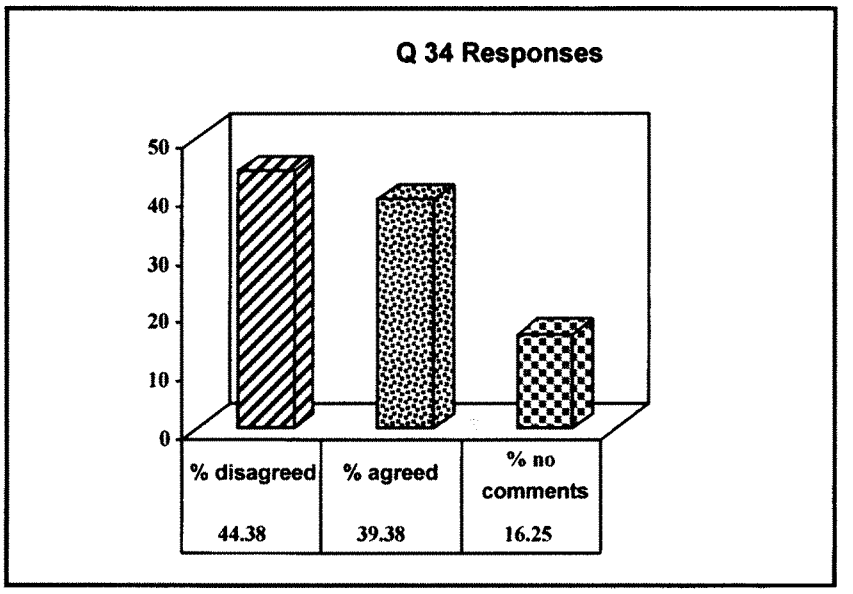
32. There should be semester examinations in higher education.



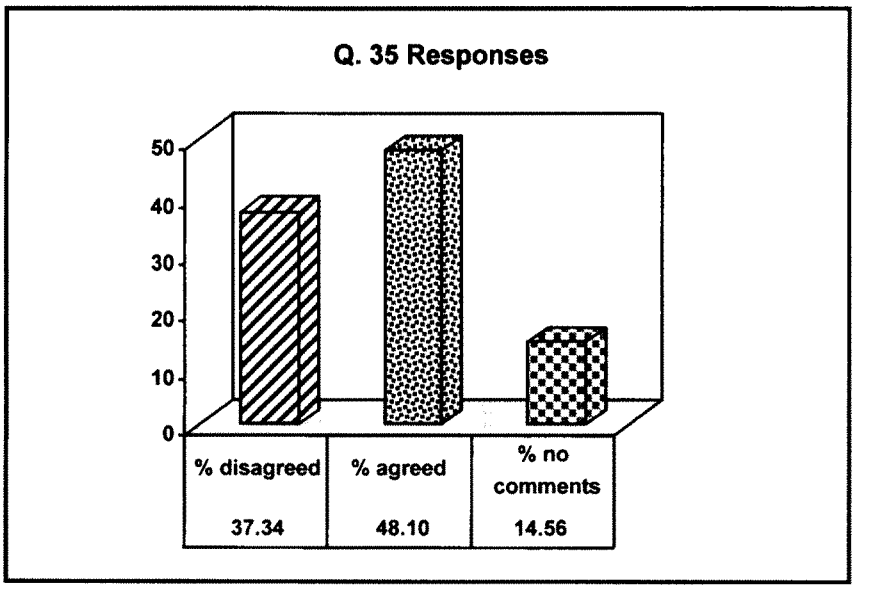
33. Change of teaching techniques help to improve the examination results.



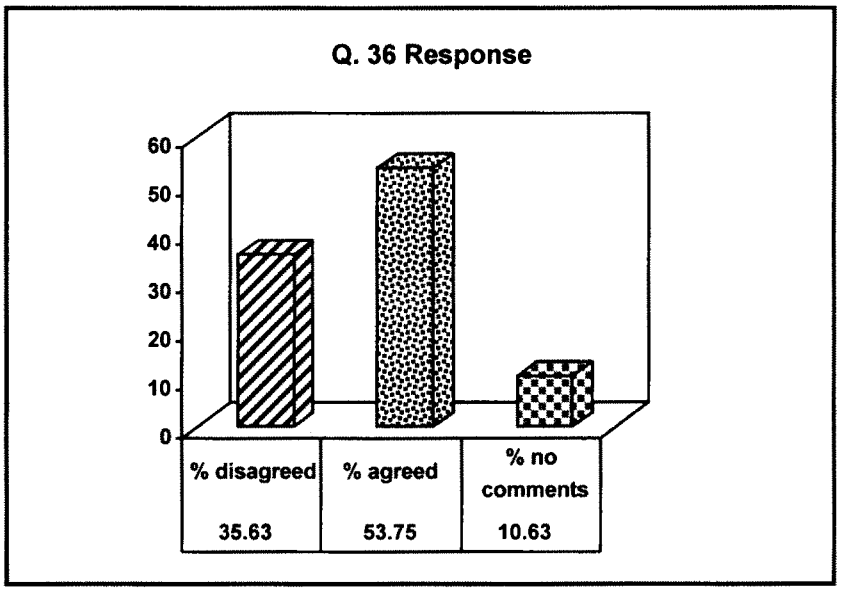
34. Gradation system is better than marks system of the present examination system.



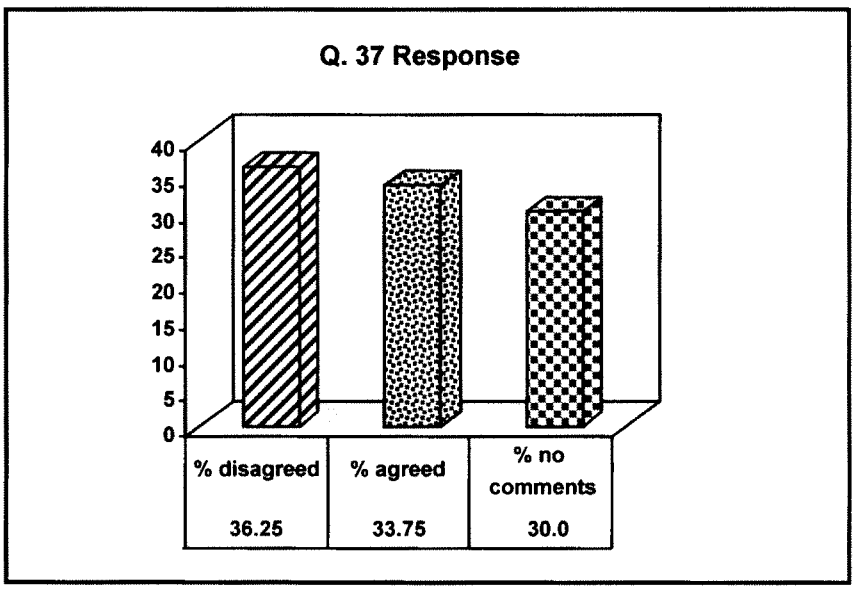
35. Co-curricular activities should be evaluated along with academic activities.



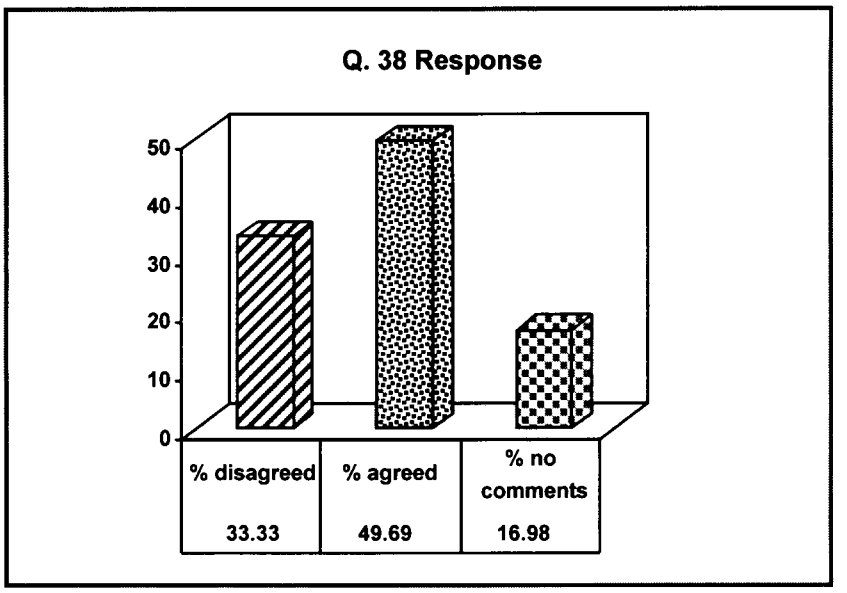
36. Syllabus is not completed in time due to lots of examination.



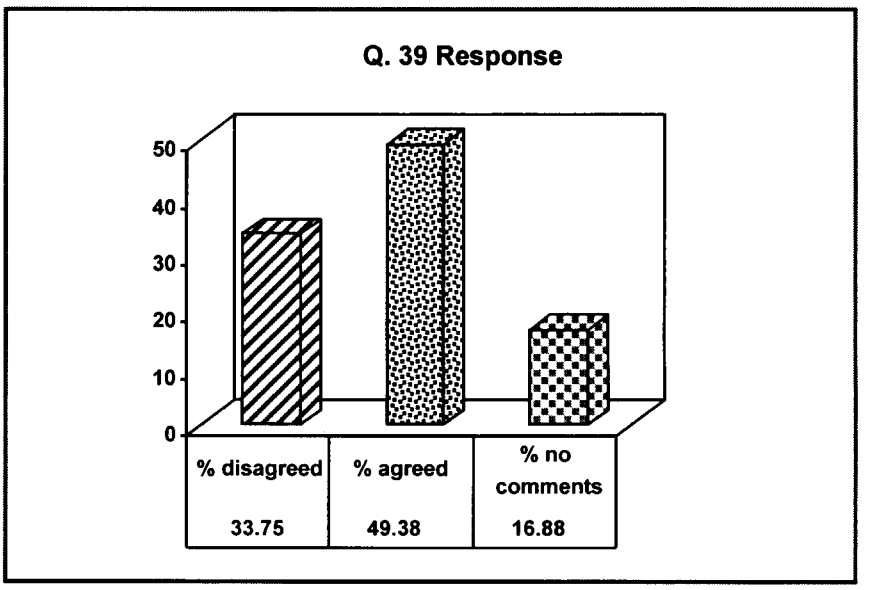
37. MCQ type of examinations do not measure the subject depth.



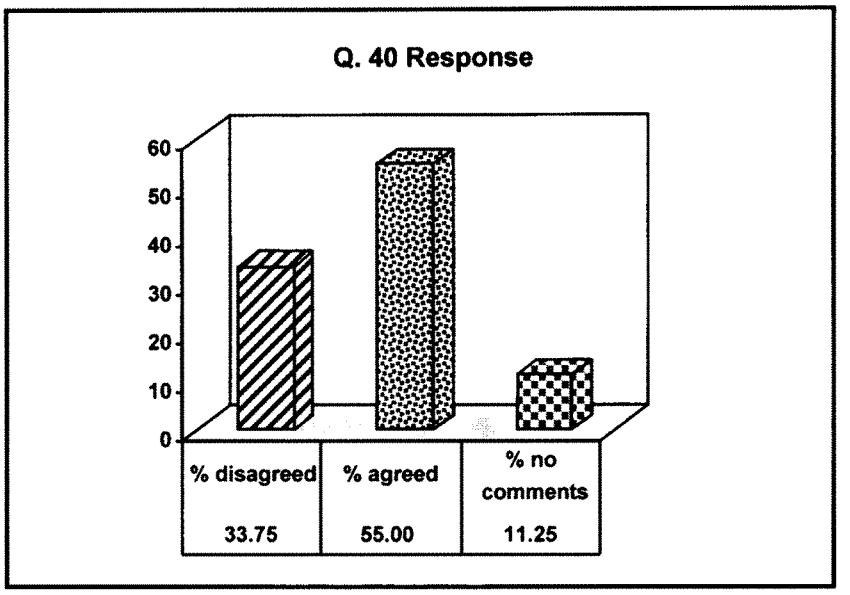
38. In present examination system, less importance is given to the non-academic activities.



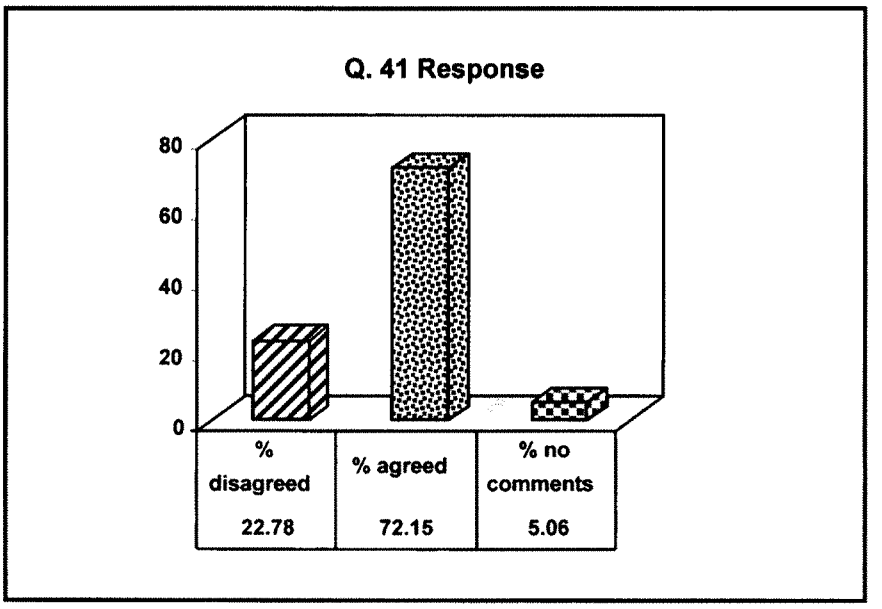
39. The present examination system does not give emphasis on vocational stream.



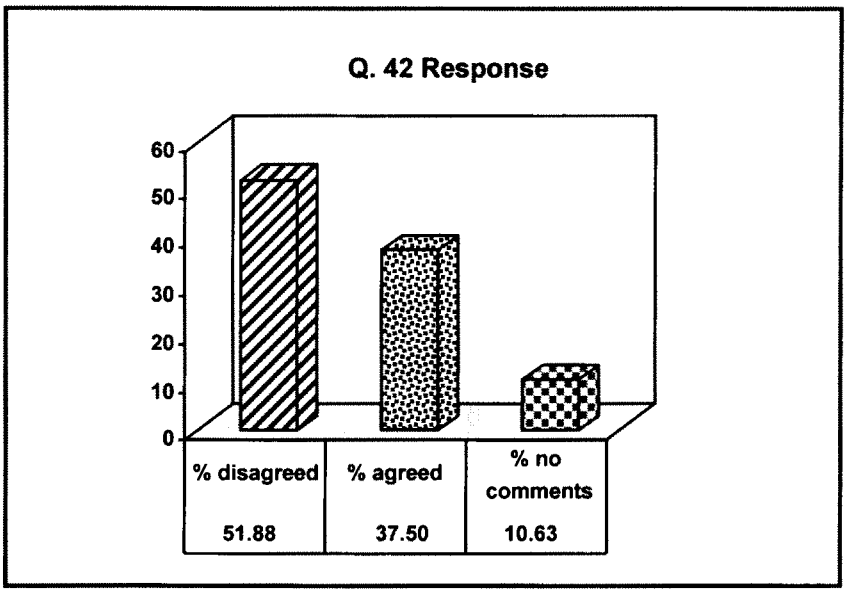
40. Frequent examinations raise the mental pressure.



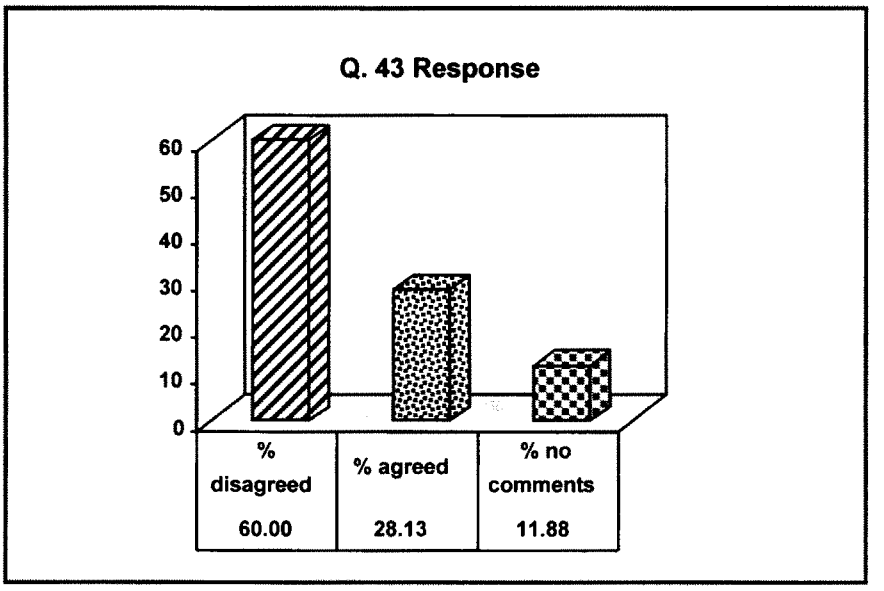
41. Corrected answer sheet should be shown to students.



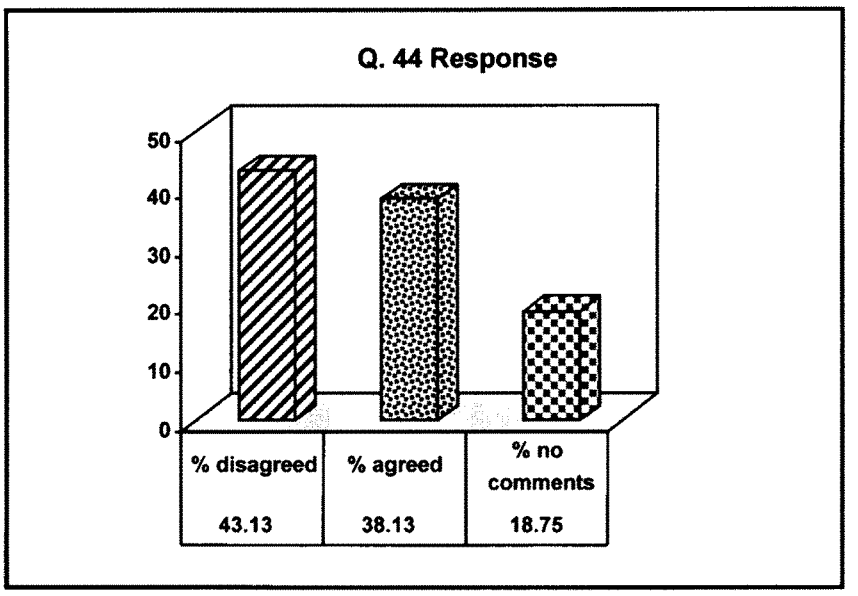
42. Answer sheets are properly evaluated.



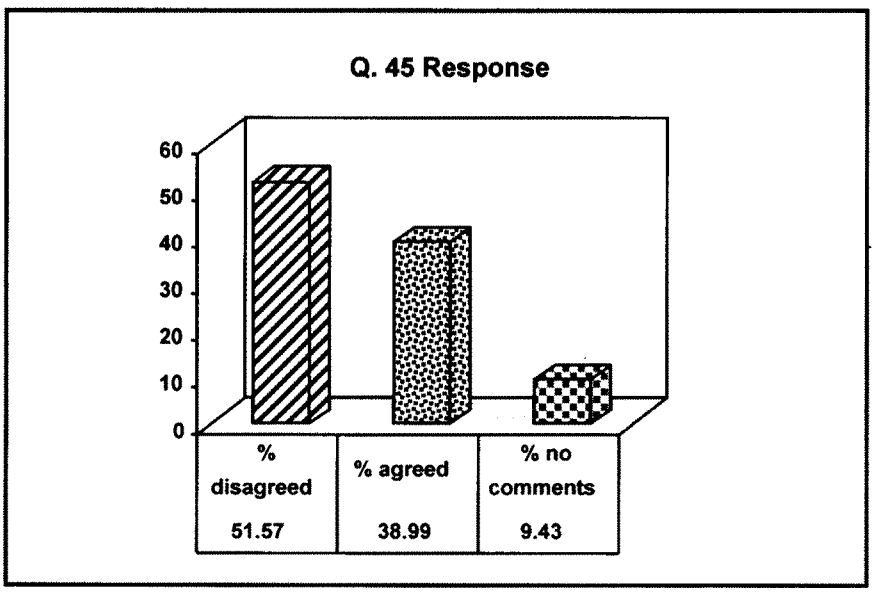
43. More internal examination should be arranged.



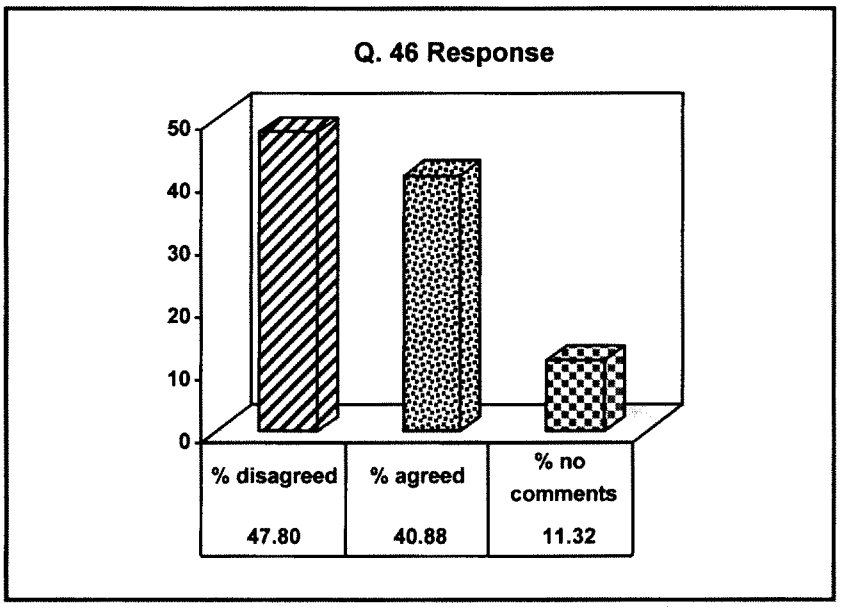
44. Examinations are only waste of time.



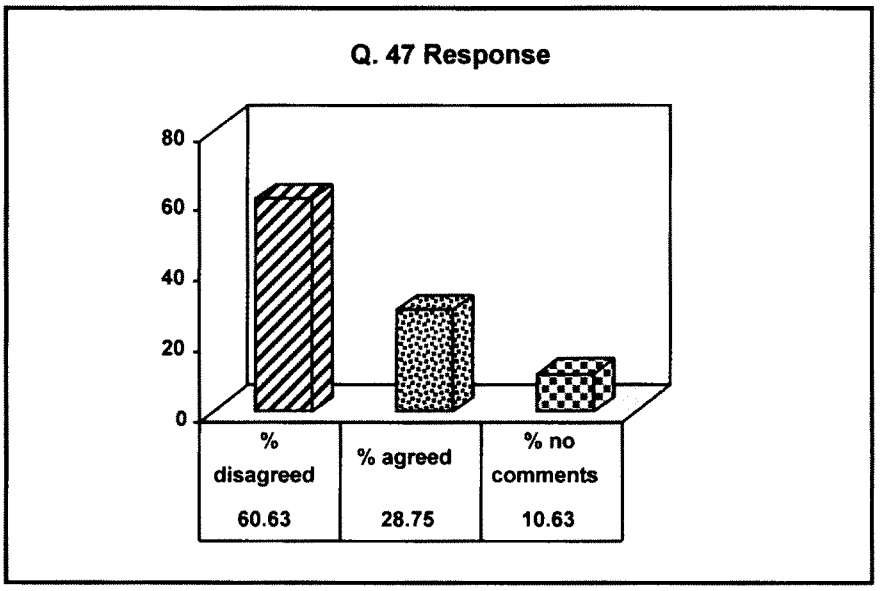
45. Result of examinations motivates to give more examinations in future.



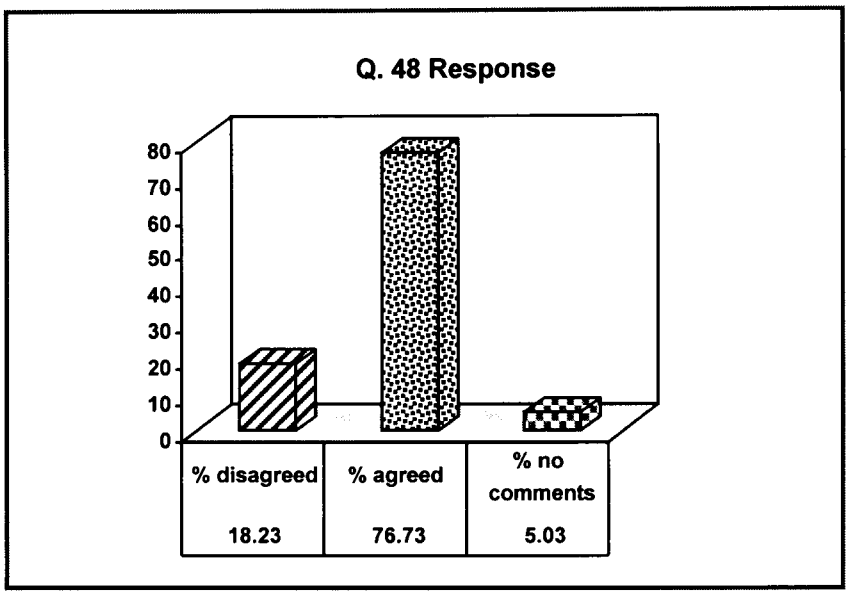
46. Instructions of question papers are properly understood.



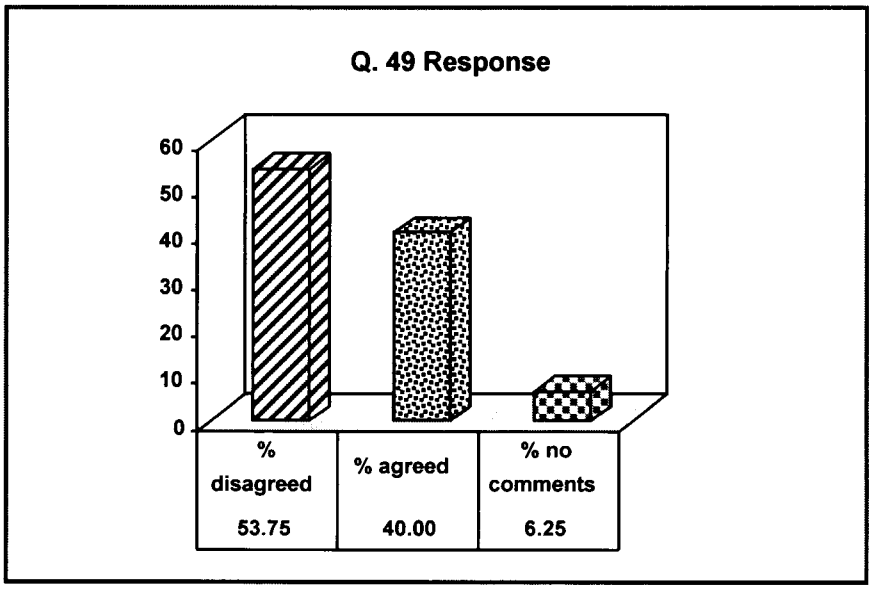
47. Examination schedules are organized in proper time.



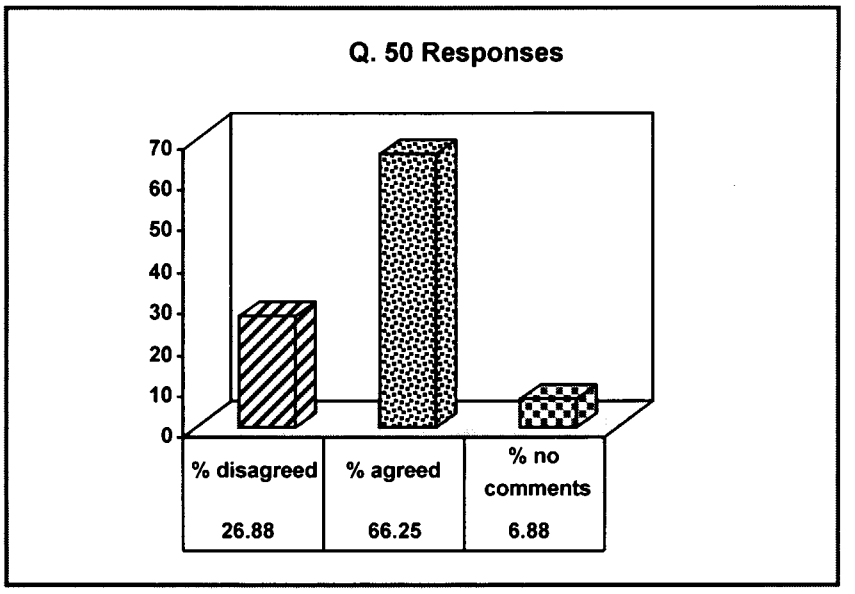
48. Examination schedules are properly maintained



49. Corrected answer sheets are shown o the students in a particular date.

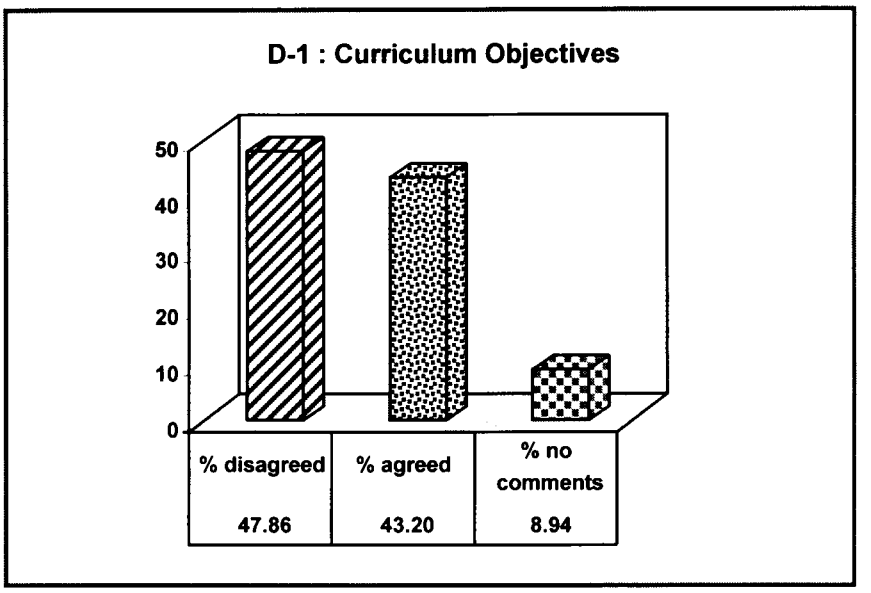


50. Examination results are published in a fixed date.

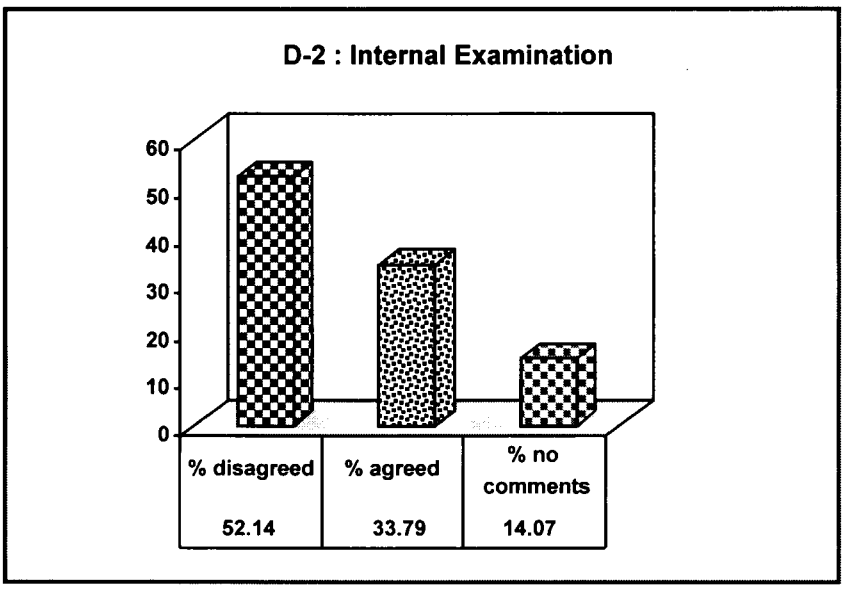


3.6.2 Graphical Representation of Different Dimensions

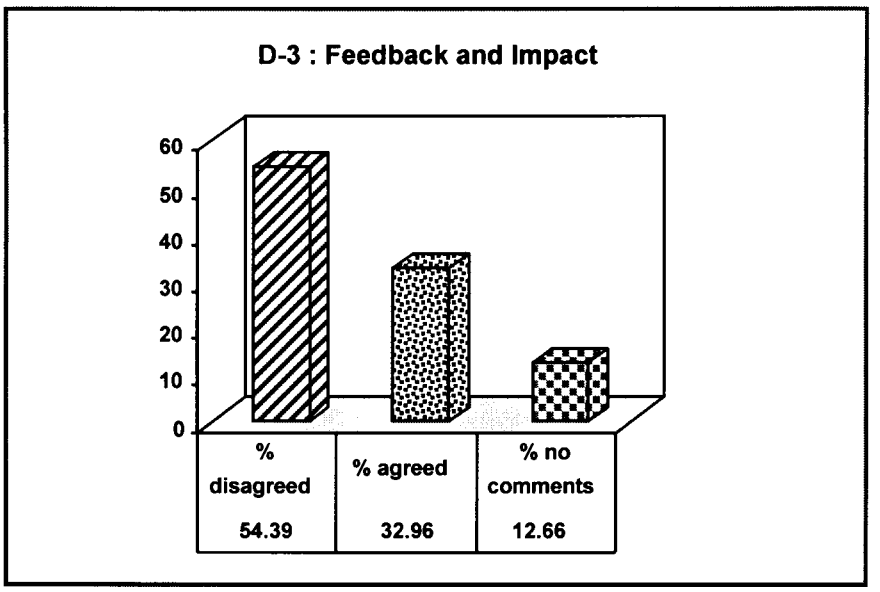
1. Curriculum objectives



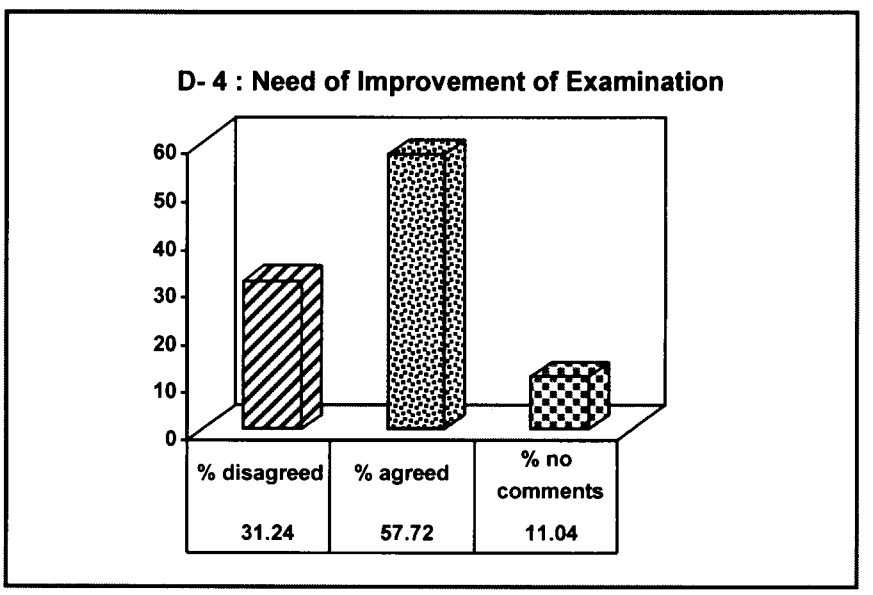
2. Internal examinations



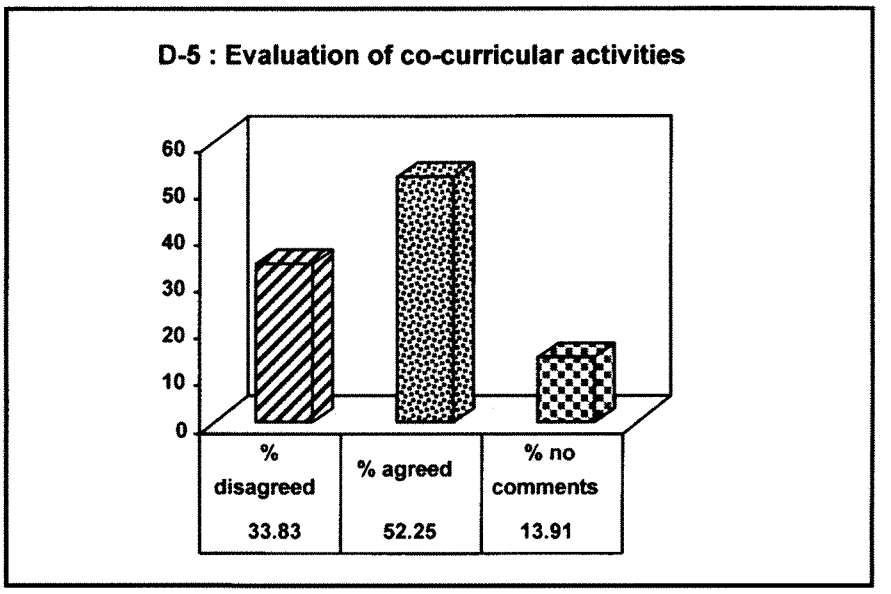
3. Feedback and impact



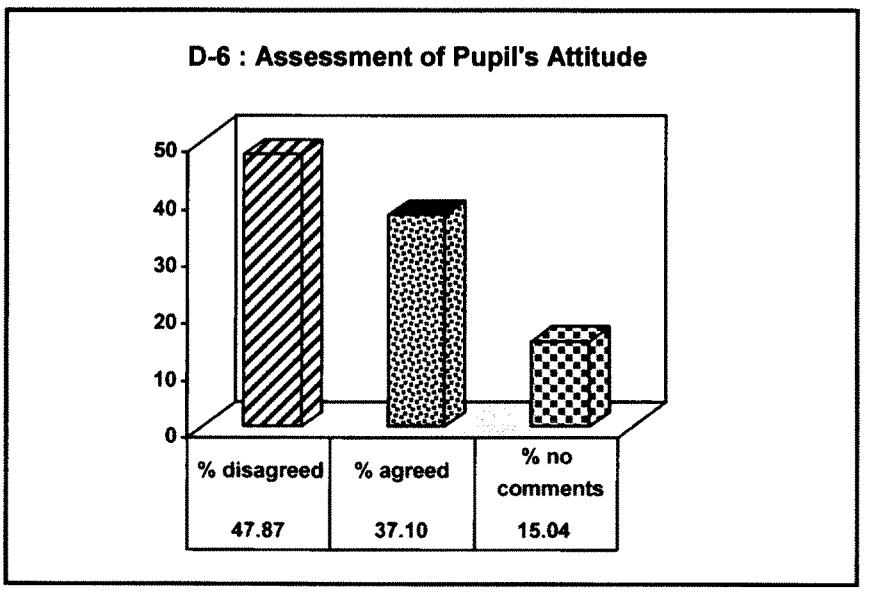
4. Improvement of Examination



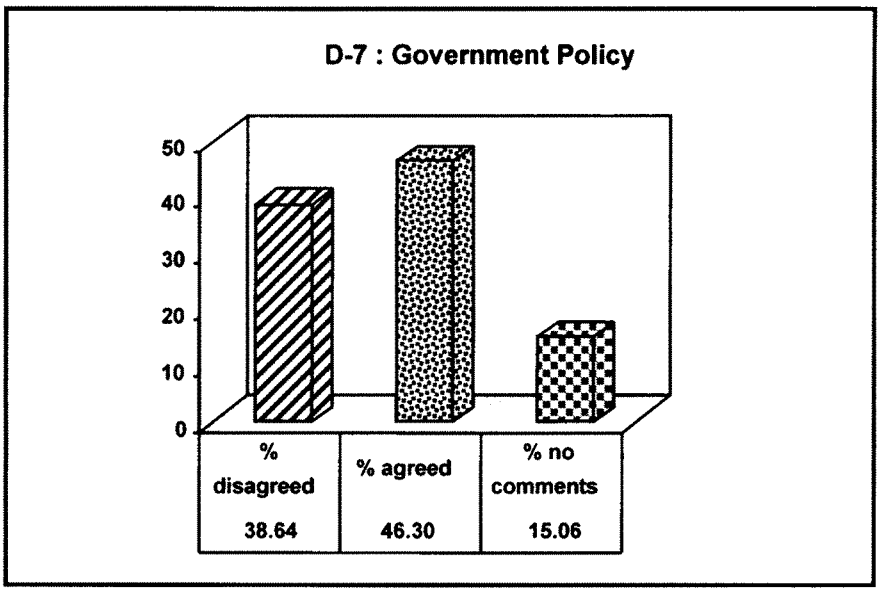
5. Evaluation of co-curricular activities



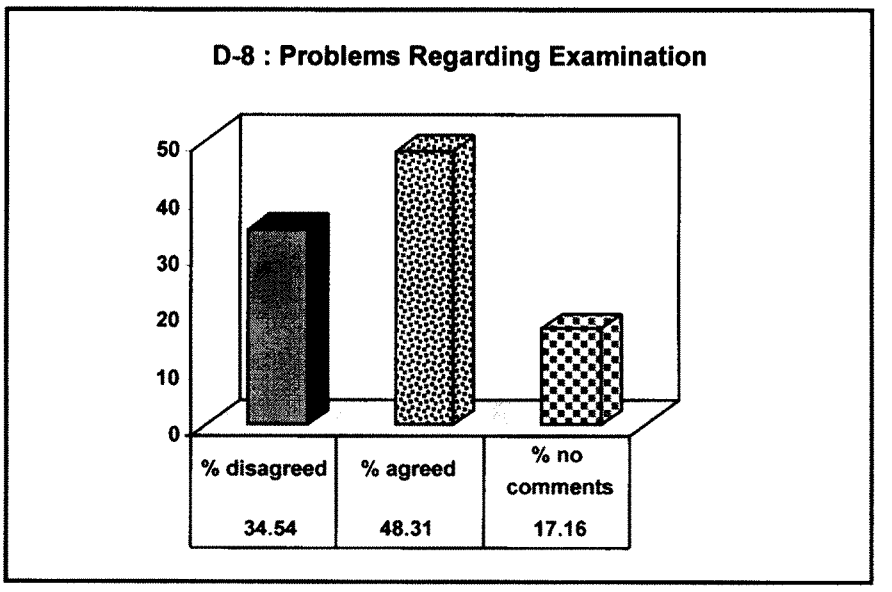
6. Assessment of pupil's attitude



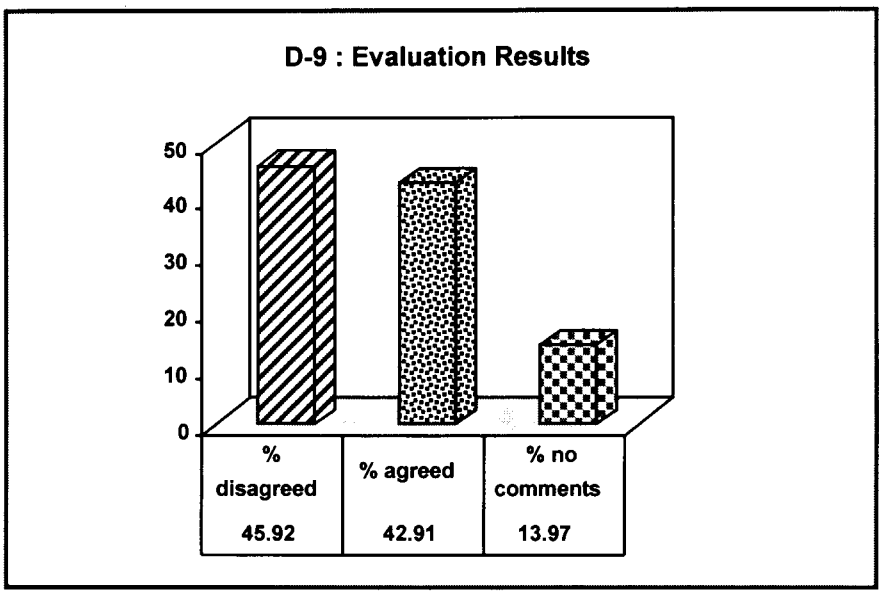
7. Government Policy



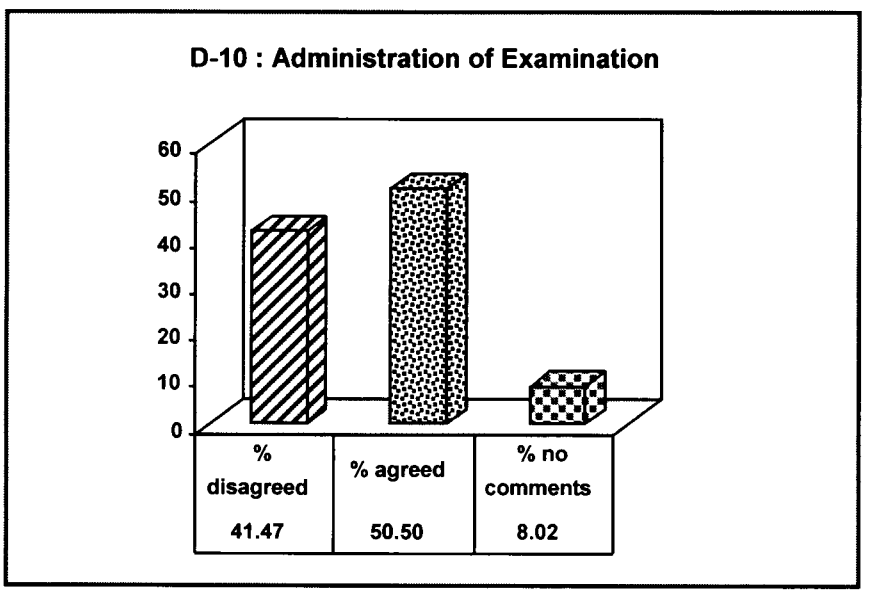
8. Problems regarding examinations



9. Evaluation results



10. Administration of examination



3.7 Analysis of the Graphs representing the Statements

Graph Q. 1 shows that 38.12 % student agreed with the statement, 50.62% disagreed with the statement and 11.25% did not comment on the particular statement. So, it is clear from the above responses that a majority of the students think that the examination system does not measure the application ability of the acquired knowledge.

Graph Q. 2 shows that 60.5 % students agreed with the statement, 33.12% student disagreed with the statement and 6.36% did no comment. So, it can be said that a majority of the student think that present examination system does not enables the student to read, write and speak broadly to percept .

Graph Q. 3 shows that 52.2 % disagreed with the statement, 36.47% agreed with the statement and 11.32% did not comment. So, it can be concluded that present examination system do not supported by a majority of the student in measuring the independent thinking ability.

Graph Q. 4 shows that 52.2% disagreed with the statement, 37.73% agreed with the statement and 10% did not comment. So, it can be concluded from the above percentage of responses that present examination system does not supported by a large no. of students in increasing the mental ability of the students.

Graph Q. 5 shows that 52.2% student disagreed with the statement, 37.73% of student agreed with the statement and 10% student remained neutral. So, it can be concluded that the existing examination system does not supported by a majority of the student in measuring the moral development in students.

Graph Q. 6 shows that 56.25% student disagreed with the statement, 35.62% student agreed with the statement and 8.12% student did not comment. So, it is clear that a majority of the student think that present examination system do not evaluate the abilities properly.

Graph Q. 7 shows that 53.75% student disagreed with the statement, 27.5% agreed with the statement and 18.75% remained neutral. So, it can be

concluded that a majority of the student think that the present examination system do not able to differentiate the intellectual ability among the students.

Graph Q. 8 shows that 54 % student disagreed with the statement, 33.33% agreed with the statement and 12.57% did not comment. So, it can be said that the present examination system do not supported by the student in the view regarding selection of proper carrier or stream of study.

Graph Q. 9 shows that 47.5% student disagreed with the statement, 35% student agreed with the statement and 17.5% remained neutral. So, it can be concluded from the above responses that the present examination system do not supported by the students in the view regarding diagnosis of weakness in learned knowledge.

Graph Q. 10 shows that the 49% disagreed with the statement, 37.5% agreed with the statement and 13.37% did not comment. So, it can be concluded that the present examination system do not supported by a majority of the student in the view regarding reflection of student's present state of education in examination.

Graph Q. 11 shows that 48.75% disagreed with the statement, 35.62% agreed with the statement and 15.62% remained neutral. So, it can be concluded from the above responses that a majority of the student think that present examination system do not help in all round development.

Graph Q. 12 shows that 55% of the student disagreed with the statement, 36.25% student agreed with the statement and 8.755 students did not comment. So, it can be said that a majority of the student think that the present system do not able to help the student in developing self consciousness.

Graph Q. 13 shows that 58% student disagreed with the statement, 26% agreed with the statement and 15.6% remained neutral. So it can be said that from above responses a good percentage of the student think that present examination system is faulty.

Graph Q. 14 represents that 53.7% of the student disagreed with the

statement, 32% agreed with the statement and 13.9% remained neutral. So, it is clear from the above responses that majority of the student think that the present examination system does not reduce 'drop-out'.

Graph Q. 15 shows that 58% student disagreed, 34% student agreed and 9% student remained neutral. So, it can be said that the present examination system do not supported by a majority of the student in the view regarding eradication of 'exam phobia'.

Graph Q. 16 shows that 71 % student agreed with the statement, 22% disagreed with the statement and 5% remained neutral. So, it is clear from the above responses that majority of the student think that present examination should be improved.

Graph Q. 17 shows that 40.5% student disagreed with the statement, 41.13% agreed with the statement and 18.35% remained neutral. So, it is not clear from the above responses that the view regarding replacement of present examination system with the continuous evaluation system is justifiable or not.

Graph Q. 18 shows that 63.75% student agreed with the statement, 24.3% disagreed with the statement and 11.8% remained neutral. So, it is clear from the above responses that majority of the student think that mental pressure should be minimized in the examination system.

Graph Q. 19 shows that 55.62% student agreed with the statement, 36.8% student disagreed with the statement and 7.5% did not comment. So, it can be said that a majority of the student think that the gradation system is justifiable.

Graph Q. 20 shows that 56% student agreed with the statement, 31% student disagreed with the statement and 11.8% remained neutral. So, it can be said from the above responses that a majority of the student think that steps should be taken to stop malpractices.

Graph Q. 21 shows that 50.6% student disagreed with the statement, 32.9% student agreed with the statement and 16.45% did not comment. So, it can be said from the above responses that majority of the student think that the

existing examination system do not evaluate the co-curricular activities.

Graph Q. 22 shows that 51.25% student agreed with the statement, 35.6% disagreed with the statement and 13% did not comment. So, it is clear from the Graph that a majority of the student think that co-curricular activities develop personality.

Graph Q. 23 shows that 65% of the student agreed with the statement, 26.8% student disagreed with the statement and 7.5% remained neutral. So, it can be said that a majority o the student think that the co-curricular activities helpful in joyful learning.

Graph Q. 24 shows that 50% student agreed with the statement, 34.3% student disagreed with the statement and 15.6% remained neutral. So, it can be said from the above responses that a majority of the student think that the co-curricular activities develop social qualities.

Graph Q. 25 shows that 61% student agreed with the statement, 21.8% student disagreed with the statement and 16.8% student remained neutral. So, it can be concluded that a large no. of students think that the co-curricular activities develop the ability to work together.

Graph Q. 26 shows that 54% student disagreed with the statement, 40% student agreed with the statement and 5% did not comment. So, it can be said from the above responses that a majority of the students think that the present examination system do not increase the interest towards learning.

Graph Q. 27 shows that 49% student disagreed with the statement, 23.75% student agreed with the statement and 26.87% remained neutral. So, it can be said that a large no. of students think that the present examination system do not increase the motivation.

Graph Q. 28 shows that 49.6% student disagreed with the statement, 35.8% student agreed with the statement and 14.4% remained neutral. So, it can be concluded that a majority of the students think that the present examination system do not help to express.

Graph Q. 29 shows that 53% student disagreed with the statement, 38.7% student agreed with the statement and 8% remained neutral. So, it can be said that present examination system do not supported by a large no. o students in the view regarding fight against superstition.

Graph Q. 30 shows that 46.5% student agreed with the statement, 32.7% disagreed with the statement and 20.7% did not comment. So, a majority of the students supported that present examination system help to develop independency.

Graph Q. 31 shows that 48.7% student agreed with the statement, 35.6% student disagreed with the statement and 15.6% remained neutral. So, it can be said that a majority of the students think that the semester system of examination is justifiable.

Graph Q. 32 shows that 44.65% student disagreed with the statement, 40.88% student agreed with the statement and 14.46% did not comment. So, it is not clear from the responses about the statement regarding whether the semester should take a proper development.

Graph Q. 33 shows that 54.3% student agreed with the statement, 31.25% disagreed with the statement and 14.3% remained neutral. So, it can be concluded from the above responses that a majority of the students think that change of teaching techniques improve examination results of students.

Graph Q. 34 shows that 44.3% student disagreed with the statement, 39.3% student agreed with the statement and 16% remained neutral. So, it is not distinctly clear from the above responses that whether gradation is better than marks system or not.

Graph Q. 35 shows that 48% student agreed with the statement, 37% disagreed with the statement and 14.5% did not comment. So, it can be said from the above responses that a majority of the students think that co-curricular activities should be assessed properly along with academic activities.

Graph Q. 36 shows that 53.75% student agreed with the statement, 35.6%

student disagreed with the statement and 10.62% remained neutral. So, it can be said from the above responses a majority of the students think that more examination affects the syllabus completion in time.

Graph Q. 37 shows that 36.25% student disagreed with the statement, 33.75% agreed with the statement and 30 % remained neutral. Here responses are divided. It is not clear that whether MCQ types can measure subject depth or not.

Graph Q. 38 shows that 49.68% agreed with the statement, 33.33% disagreed with the statement and 16.98% did not comment. So, it can be said that a majority of the student think that less importance is given to the non-academic activities.

Graph Q. 39 shows that 49.3% student agreed with the statement, 33.7% disagreed with the statement and 16.87% remained neutral. So, it can be said that a majority of the student think that present examination system do not give emphasis on vocational stream.

Graph Q. 40 shows that 55% of the student agreed with the statement, 33.75% disagreed with the statement and 11.25% remained neural. So, it is clear that a majority of the student think that frequent examination raise mental pressure.

Graph Q. 41 shows that 72% student agreed with the statement, 22.78% disagreed with the statement and 5% remained neutral. So, it can be said that a large no of students think that checked answer sheet should be shown to the student.

Graph Q. 42 shows that 51.8% student disagreed with the statement, 37.5% agreed with the statement and 10.6% remained neutral. So, it can be said that a majority of the students think that answer sheets are not properly checked.

Graph Q. 43 shows that 60% student disagreed with the statement, 28% agreed with the statement and 11.8% remained neutral. So , it can be said that a majority of the students not supported that more internal examination should be

arranged.

Graph Q. 44 shows that 43% student disagreed with the statement, 38% agreed with the statement and 18.7% remained neutral. So, it can be said that a majority of the students do no think that examinations are waste of time.

Graph Q. 45 shows that 51.5% student disagreed with the statement, 38.99% agreed with the statement and 9.43% remained neutral. So, it can be concluded that a majority of the students do not think that results of the examination motivates to give more examination in future.

Graph Q. 46 shows that 47.79% student disagreed with the statement, 40.88% agreed with the statement and 11.3% remained neutral. So, it can be said that a majority of the student do not think that instructions in the question paper are clearly understood by them.

Graph Q. 47 shows that 60.6% student disagreed with the statement, 28.75% agreed with the statement and 10.62 % remained neutral. So, it can be said that a large no. of students do not think that examination schedule are announced in advance.

Graph Q. 48 shows that 76.72% student agreed with the statement, 18.23% disagreed with the statement and 5% remained neutral. So, it is clear that a majority of the student think that examination schedules are properly maintained.

Graph Q. 49 shows that 53% student disagreed with the statement, 40% agreed with the statement and 6% remained neutral. So, it can be said that a majority of the student do not think that checked answer sheets are shown to the student in a particular day.

Graph Q. 50 shows that 66.2% student agreed with the statement, 26.87% disagreed with the statement and 6.87% remained neutral. So, it can be said that a majority of the student think that examination results are published in a fixed day.

3.8 Analysis of the Graphs representing the Dimensions

Graph D-1 shows that 47.85% of the student disagreed with the dimension, 43% agreed with the dimension and 8.94% remained neutral. So, it can be said that the responses did not support the curriculum objectives dimension by a small difference.

Graph D-2 shows that 52% student disagreed with the dimension, 33.79% agreed with the dimension and 14% remained neutral. So, it can be said that a majority of the students did not support the internal examination system.

Graph D-3 shows that the 54.38% of the student disagreed with the dimension, 32.9% agreed with the dimension and 12.65% remained neutral. So, it can be said that a majority of the student's responses did not support the feedback and impact dimension.

Graph D-4 shows that 57.7% student agreed with the dimension, 31.2% disagreed with the dimension and 11% remained neutral. So, it can be said that a majority of the student supported the dimension titled need of improvement of examination.

Graph D-5 shows that 52% student agreed with the dimension, 33.8% disagreed with the dimension and 13.9% remained neutral. So, it can be said that a majority of the student supported the dimension titled evaluation of co-curricular activities.

Graph D-6 shows that 47.86 % student disagreed with the dimension, 37% agreed with the dimension and 15% remained neutral. So it can be said that a majority of the students did not support the dimension titled assessment of pupil's attitude.

Graph D-7 shows that 46.2% student agreed with the dimension, 38.64% disagreed with the dimension and 15% remained neutral. So, it can be said that majority of the student supported the dimension titled government policy.

Graph D-8 shows that 48.3% student agreed with the dimension, 34.54% disagreed with the dimension and 17.14% remained neutral. So, it can be said

that a majority of the student supported the dimension tiled problems regarding examination.

Graph D-9 shows that 45.9% student disagreed with the dimension, 42.9% agreed with the dimension and 13.97% remained neutral. So, it can be said that a little majority of the student do not supported the dimension tiled evaluation result.

Graph D-10 shows that 50.5% student agreed with the dimension, 41.47% disagreed with the dimension and 8% remained neutral. So, it can be said that a majority of the student supported the dimension titled Administration of examination.

CHAPTER – IV

METHODOLOGY(2) – ANALYSIS & INTERPRETATION FROM NON-PARAMETRIC STATISTICS (CHI-SQUARE TESTING)

CHAPTER – IV

METHODOLOGY(2) : ANALYSIS & INTERPRETATION FROM NON-PARAMETRIC STATISTICS (CHI-SQUARE TESTING)

4.1 Methodology

The research is based on descriptive type survey research.

4.2 Tools Used No. 2

A standardized Questionnaire regarding examination system have been used as a device for collecting data.

4.3 Standardization

A pilot study has been conducted for selecting items. Initially 90 items have been taken out of which 44 items have been finally selected from the 10 experts view. Item analysis through 't' test from high & low group has been avoided so that some important items regarding any particular objective may be discarded.

4.4 Reliability

Items are considered to be highly reliable and the correlation coefficient has been found to be 0.89 calculated from test- retest method.

4.5 Validity

Content validity has been highly maintained during study.

4.6 Population

First years degree level college students in West Bengal are considered as population.

4.7 Sample

Some selected colleges of 1st year degree level students are used as sample. Questionnaire has been applied for collecting the data and the sampling technique is purposive in nature.

4.8 Sample Size

Two hundred students have been selected as sample from four degree colleges in West Bengal. The sample is purposive nature.

4.9 Rationale for Non-parametric Statistics

As most of the systems are selective in nature and also are matched with examination system and academic achievement it is better to apply statistics in terms of counted data leading to non-parametric statistics. Academic Achievement is also viewed in terms of guided by 3 dimension examination system as (1) Situational (2) personal and (3) Motivational factors.

4.10 Calculation and Interpretation

Table 1 : Examination system improves the teaching-learning process

	SA	A	UN	DA	SDA
Observed (f_o)	26	61	5	14	14
Expected (f_e)	24	24	24	24	24
($f_o - f_e$)	2	37	-19	-10	-10
$(f_o - f_e)^2$	4	1369	361	100	100
$(f_o - f_e)^2/f_e$	0.17	57.04	15.04	4.17	4.17

Table Value = 9.49 χ^2 = 80.59 df = 4 P = 0.05

Interpretation : Table 1 shows that the value of χ^2 (calculated) is 80.59 which is greater than the table value. Hence, the result is significant at 0.05 level, Therefore, the statement is accepted. It means that Examination System improves the teaching learning process.

Table 2 : Examination system gives feedback to the teachers for their improvement

	SA	A	UN	DA	SDA
Observed (f_o)	35	56	3	16	10
Expected (f_e)	24	24	24	24	24
($f_o - f_e$)	11	32	-21	-8	-14
$(f_o - f_e)^2$	121	1024	441	64	196
$(f_o - f_e)^2/f_e$	5.04	42.67	18.38	2.67	8.17

Table Value = 9.49 χ^2 = 76.93 df = 4 P = 0.05

Interpretation : Table 2 shows that the value of χ^2 (calculated) is 76.93 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. It can concluded that teacher can improve his performance on the basis of feedback received from the students.

Table 3: Achievement encourages to guess paper, supporting material, notes instead of valuing the subjects

	SA	A	UN	DA	SDA
Observed (f_o)	41	58	4	12	5
Expected (f_e)	24	24	24	24	24
($f_o - f_e$)	17	34	-20	-12	-19
$(f_o - f_e)^2$	289	1156	400	144	361
$(f_o - f_e)^2/f_e$	12.04	48.17	16.67	6.00	15.04

Table Value = 9.49 χ^2 = 97.92 df = 4 P = 0.05

Interpretation : Table 3 shows that the value of χ^2 was found 97.92 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement, Achievement encourages and guess paper, supporting material, notes instead of valuing the subjects. Examination system encourages the other supporting material for the students and teachers which includes the guess paper, notes and guidebooks. Due to this teachers and students prefer selective study.

Table 4 : Existing examination system just labels the pass and fail and not to follow the objectives

	SA	A	UN	DA	SDA
Observed (f_o)	47	49	4	15	5
Expected (f_e)	24	24	24	24	24
($f_o - f_e$)	23	25	-20	-9	-19
$(f_o - f_e)^2$	529	625	400	81	361
$(f_o - f_e)^2/f_e$	22.04	26.04	16.67	3.38	15.04

Table Value = 9.49 $\chi^2 =$ 83.17 df = 4 P = 0.05

Interpretation : Table 4 shows that the value of χ^2 came to 83.17 when calculated which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. Now a days the examination system is only a label for the students to pass or fail. The student of failure is so dangerous for the young students that they commit crimes of various types.

Table 5 : Examination focuses on academic load instead of giving true knowledge

	SA	A	UN	DA	SDA
Observed (f_o)	21	28	1	58	12
Expected (f_e)	24	24	24	24	24
($f_o - f_e$)	-3	4	-23	34	-12
$(f_o - f_e)^2$	9	16	529	1156	144
$(f_o - f_e)^2/f_e$	0.38	0.67	22.04	48.17	6.00

Table Value = 9.49 $\chi^2 =$ 77.26 df = 4 P = 0.05

Interpretation : Table 5 shows that the value of χ^2 when calculated came to 77.26 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is rejected. Examination confirms students in the preparation to get good marks by adopting different means. It does encourage students to w2iden the limit of knowledge. It can be concluded that Examination focuses on academic load instead of giving true knowledge.

Table 6 : Achievement promotes for getting more marks avoiding any kinds of objectives reflecting through values

	SA	A	UN	DA	SDA
Observed (f_o)	45	61	0	10	4
Expected (f_e)	24	24	24	24	24
($f_o - f_e$)	21	37	-24	-14	-20
$(f_o - f_e)^2$	441	1369	576	196	400
$(f_o - f_e)^2/f_e$	18.38	57.04	24.00	8.17	16.67

Table Value = 9.49 χ^2 = 124.26 df = 4 P = 0.05

Interpretation : Table 6 shows that the value of χ^2 (calculated) was found 124.26 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. Our examination system is so weak that the influential people manipulate different types of unfair means for obtaining more marks. As the examination system moves around marks instead of getting knowledge, the candidates use unfair means for containing more marks avoiding morality and lack of objectives from the system.

Table 7 : Examination system should be integrated

	SA	A	UN	DA	SDA
Observed (f_o)	39	66	1	11	3
Expected (f_e)	24	24	24	24	24
($f_o - f_e$)	15	42	-23	-13	-21
$(f_o - f_e)^2$	225	1764	529	169	441
$(f_o - f_e)^2/f_e$	9.38	73.50	22.04	7.04	18.38

Table Value = 9.49 χ^2 = 130.34 df = 4 P = 0.05

Interpretation : Table 7 shows that the value of χ^2 (calculated) is 130.34 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted.

Table 8 : Secrecy arrangements about papers are ineffective and sometimes not properly valued

	SA	A	UN	DA	SDA
Observed (f_o)	41	58	2	14	5
Expected (f_e)	24	24	24	24	24
($f_o - f_e$)	17	34	-22	-10	-19
$(f_o - f_e)^2$	289	1156	484	100	361
$(f_o - f_e)^2/f_e$	12.04	48.17	20.17	4.17	15.04

Table Value = 9.49 $\chi^2 =$ 99.59 df = 4 P = 0.05

Interpretation : Table 8 shows that the value of χ^2 (calculated) is 99.59 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. The study concluded that the secrecy arrangements about the papers are ineffective.

Table 9 : Vocational ability is also an important dimension for attaining conceptual ability in an examination system

	SA	A	UN	DA	SDA
Observed (f_o)	21	19	3	58	19
Expected (f_e)	24	24	24	24	24
($f_o - f_e$)	-3	-5	-21	34	-5
$(f_o - f_e)^2$	9	25	441	1156	25
$(f_o - f_e)^2/f_e$	0.38	1.04	18.38	48.17	1.04

Table Value = 9.49 $\chi^2 =$ 69.01 df = 4 P = 0.05

Interpretation : Table 9 shows that the value of χ^2 was found to be 69.01 is greater than the table value and the result is significant at 0.05 level against the statement is rejected. The study concluded that the Non perception is also an ability to improve conceptual Quality.

Table 10 : Examination systems are not related to professional development

	SA	A	UN	DA	SDA
Observed (f_o)	39	57	2	17	5
Expected (f_e)	24	24	24	24	24
($f_o - f_e$)	15	33	-22	-7	-19
$(f_o - f_e)^2$	225	1089	484	49	361
$(f_o - f_e)^2/f_e$	9.38	45.38	20.17	2.04	15.04

Table Value = 9.49 χ^2 = 92.01 df = 4 P = 0.05

Interpretation : Table 10 shows that the value of χ^2 was found 92.01 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted.

Table 11 : Curriculum do not satisfy the whole objectives leading to examination system

	SA	A	UN	DA	SDA
Observed (f_o)	37	58	4	13	7
Expected (f_e)	24	24	24	24	24
($f_o - f_e$)	13	34	-20	-11	-17
$(f_o - f_e)^2$	169	1156	400	121	289
$(f_o - f_e)^2/f_e$	7.04	48.17	16.67	5.04	12.04

Table Value = 9.49 χ^2 = 88.96 df = 4 P = 0.05

Interpretation : Table 11 shows that the value of χ^2 (calculated) is 88.96 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. It can be concluded that : Curriculum do not satisfy the whole objectives leading to examination system.

Table 12 : Development of memorization rather than perception is the key factor for attaining success in examination system

	SA	A	UN	DA	SDA
Observed (f_o)	36	39	4	21	20
Expected (f_e)	24	24	24	24	24
($f_o - f_e$)	12	15	-20	-3	-4
$(f_o - f_e)^2$	144	225	400	9	16
$(f_o - f_e)^2/f_e$	6.00	9.38	16.67	0.38	0.67

Table Value = 9.49 χ^2 = 33.10 df = 4 P = 0.05

Interpretation : Table 12 shows that the value of χ^2 (calculated) is 33.10 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. The study concluded that : Development of memorization rather than perception is the key factor for attaining success in examination system.

Table 13 : Weaknesses of teachers are also measured more effectively by observing their professional attitude in a output based examination system

	SA	A	UN	DA	SDA
Observed (f_o)	38	43	3	23	13
Expected (f_e)	24	24	24	24	24
($f_o - f_e$)	14	19	-21	-1	-11
$(f_o - f_e)^2$	196	361	441	1	121
$(f_o - f_e)^2/f_e$	8.17	15.04	18.38	0.04	5.04

Table Value = 9.49 χ^2 = 46.67 df = 4 P = 0.05

Interpretation : Table 13 shows that the value of χ^2 (calculated) is 46.67 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. The study concluded that the weaknesses of teachers are also measured more effectively by observing their professional attitude in a output based examination system

Table 14 : Examination system mode is more reliable and valid with reference to content and fulfillment of objectives

	SA	A	UN	DA	SDA
Observed (f_o)	41	46	0	20	13
Expected (f_e)	24	24	24	24	24
($f_o - f_e$)	17	22	-24	-4	-11
$(f_o - f_e)^2$	289	484	576	16	121
$(f_o - f_e)^2/f_e$	12.04	20.17	24.00	0.67	5.04

Table Value = 9.49 χ^2 = 61.92 df = 4 P = 0.05

Interpretation : Table 14 shows that the value of χ^2 (calculated) is 61.92 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. The study proved that the Internal Examination mode is more reliable and valid with reference to content and fulfilment of objectives.

Table 15 : Education system follows the institutional objectives effectively

	SA	A	UN	DA	SDA
Observed (f_o)	45	39	3	19	14
Expected (f_e)	24	24	24	24	24
($f_o - f_e$)	21	15	-21	-5	-10
$(f_o - f_e)^2$	441	225	441	25	100
$(f_o - f_e)^2/f_e$	18.38	9.38	18.38	1.04	4.17

Table Value = 9.49 χ^2 = 51.35 df = 4 P = 0.05

Interpretation : Table 15 shows that the value of χ^2 (calculated) is 51.35 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted.

Table 16 : Examination system fosters quality of life among the students and teachers

	SA	A	UN	DA	SDA
Observed (f_o)	47	43	0	17	13
Expected (f_e)	24	24	24	24	24
($f_o - f_e$)	23	19	-24	-7	-11
$(f_o - f_e)^2$	529	361	576	49	121
$(f_o - f_e)^2/f_e$	22.04	15.04	24.00	2.04	5.04

Table Value = 9.49 χ^2 = 68.16 df = 4 P = 0.05

Interpretation : Table 16 shows that the value of χ^2 (calculated) is 68.16 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted

Table 17 : Instructional procedure is given only by lecture method to fulfil the objectives reflected in examination system

	SA	A	UN	DA	SDA
Observed (f_o)	39	47	7	19	8
Expected (f_e)	24	24	24	24	24
($f_o - f_e$)	15	23	-17	-5	-16
$(f_o - f_e)^2$	225	529	289	25	256
$(f_o - f_e)^2/f_e$	9.38	22.04	12.04	1.04	10.67

Table Value = 9.49 χ^2 = 55.17 df = 4 P = 0.05

Interpretation : Table 17 shows that the value of χ^2 (calculated) is 55.17 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted.

Table 18 : Teachers are influenced in traditional system, rather to improve the all round development of learners

	SA	A	UN	DA	SDA
Observed (f_o)	21	26	5	41	27
Expected (f_e)	24	24	24	24	24
($f_o - f_e$)	-3	2	-19	17	3
$(f_o - f_e)^2$	9	4	361	289	9
$(f_o - f_e)^2/f_e$	0.38	0.17	15.04	12.04	0.38
Table Value = 9.49	χ^2 = 28.01		df = 4		P = 0.05

Interpretation : Table 18 shows that the value of χ^2 (calculated) is 28.01 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted.

Table 19 : Some teachers may not cover the prescribed syllabus and just teach limited parts which are asked in examination

	SA	A	UN	DA	SDA
Observed (f_o)	47	42	5	16	10
Expected (f_e)	24	24	24	24	24
($f_o - f_e$)	23	18	-19	-8	-14
$(f_o - f_e)^2$	529	324	361	64	196
$(f_o - f_e)^2/f_e$	22.04	13.50	15.04	2.67	8.17
Table Value = 9.49	χ^2 = 61.42		df = 4		P = 0.05

Interpretation : Table 19 shows that the value of χ^2 (calculated) is 61.42 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. The study approved that some teacher teach only some portions of topics or teach limit parts of syllabus / content.

Table 20 : Value based education promotes healthy atmosphere in the examination system

	SA	A	UN	DA	SDA
Observed (f_o)	41	52	2	16	9
Expected (f_e)	24	24	24	24	24
($f_o - f_e$)	17	28	-22	-8	-15
$(f_o - f_e)^2$	289	784	484	64	225
$(f_o - f_e)^2/f_e$	12.04	32.67	20.17	2.67	9.38

Table Value = 9.49 χ^2 = 76.93 df = 4 P = 0.05

Interpretation : Table 20 shows that the value of χ^2 (calculated) is 76.93 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement value based education promotes healthy competition and comparison among the institutions is accepted. The healthy competition and comparison among the institutions which promotes the same of more hard work and labour. It also has an effective impact on the accreditation of institutional results. The institutions utilize maximum available resources in novel ways to increase their credibility.

Table 21 : Only cognitive domain is measured & the rest of personality traits of students are not judged through academic achievement

	SA	A	UN	DA	SDA
Observed (f_o)	53	48	4	9	6
Expected (f_e)	24	24	24	24	24
($f_o - f_e$)	29	24	-20	-15	-18
$(f_o - f_e)^2$	841	576	400	225	324
$(f_o - f_e)^2/f_e$	35.04	24.00	16.67	9.38	13.50

Table Value = 9.49 χ^2 = 98.59 df = 4 P = 0.05

Interpretation : Table 21 shows that the value of χ^2 (calculated) is 98.59 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. The study concluded that existing mode of examination does not promote the idea of around development of personality. It just measures the cognitive skills of the students and rest of the personality traits are ignored.

Table 22 : Examination system is time consuming mode and from starting to announcement of result it takes much time

	SA	A	UN	DA	SDA
Observed (f_o)	49	43	5	10	13
Expected (f_e)	24	24	24	24	24
($f_o - f_e$)	25	19	-19	-14	-11
$(f_o - f_e)^2$	625	361	361	196	121
$(f_o - f_e)^2/f_e$	26.04	15.04	15.04	8.17	5.04

Table Value = 9.49 χ^2 = 69.33 df = 4 P = 0.05

Interpretation : Table 22 shows that the value of χ^2 (calculated) is 69.33 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. The study concluded that much time is consumed in our universities due to prevailing system of examination. Because there is an internal of about three to four months from its conduct to the announcement of result. On this ground existing mode may be named as time wasting process.

Table 23 : Achievement mode is expensive in conducting and marking based on person concerned

	SA	A	UN	DA	SDA
Observed (f_o)	44	49	3	13	11
Expected (f_e)	24	24	24	24	24
($f_o - f_e$)	20	25	-21	-11	-13
$(f_o - f_e)^2$	400	625	441	121	169
$(f_o - f_e)^2/f_e$	16.67	26.04	18.38	5.04	7.04

Table Value = 9.49 χ^2 = 73.17 df = 4 P = 0.05

Interpretation : Table 23 shows that the value of χ^2 (calculated) is 73.17 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted, leading to have a decision is that examination system is not always neutral.

Table 24 : Verbal communication and project methods are effective criteria for examination system

	SA	A	UN	DA	SDA
Observed (f_o)	13	34	1	37	35
Expected (f_e)	24	24	24	24	24
($f_0 - f_e$)	-11	10	-23	13	11
$(f_0 - f_e)^2$	121	100	529	169	121
$(f_0 - f_e)^2/f_e$	5.04	4.17	22.04	7.04	5.04

Table Value = 9.49 χ^2 = 43.33 df = 4 P = 0.05

Interpretation : Table 24 shows that the value of χ^2 (calculated) is 43.33 which is greater than the table value and the result is significant at 0.05 level.

Table 25 : Examination system should be given more importance on achieving objectives

	SA	A	UN	DA	SDA
Observed (f_o)	48	43	2	17	10
Expected (f_e)	24	24	24	24	24
($f_0 - f_e$)	24	19	-22	-7	-14
$(f_0 - f_e)^2$	576	361	484	49	196
$(f_0 - f_e)^2/f_e$	24.00	15.04	20.17	2.04	8.17

Table Value = 9.49 χ^2 = 69.42 df = 4 P = 0.05

Interpretation : Table 25 shows that the value of χ^2 (calculated) is 69.42 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. It means learning style should be given more importance on achieving objectives.

Table 26 : Broader area of subject matter can be covered for developing skills in achievement

	SA	A	UN	DA	SDA
Observed (f_o)	38	13	1	37	31
Expected (f_e)	24	24	24	24	24
($f_o - f_e$)	14	-11	-23	13	7
$(f_o - f_e)^2$	196	121	529	169	49
$(f_o - f_e)^2/f_e$	8.17	5.04	22.04	7.04	2.04
Table Value = 9.49	χ^2 = 44.33		df = 4		P = 0.05

Interpretation : Table 26 shows that the value of χ^2 (calculated) is 44.33 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is rejected. It means Broader area of subject matter does not cover for developing skills on achievement.

Table 27 : Examination system should be activity centric

	SA	A	UN	DA	SDA
Observed (f_o)	47	49	6	12	6
Expected (f_e)	24	24	24	24	24
($f_o - f_e$)	23	25	-18	-12	-18
$(f_o - f_e)^2$	529	625	324	144	324
$(f_o - f_e)^2/f_e$	22.04	26.04	13.50	6.00	13.50
Table Value = 9.49	χ^2 = 81.08		df = 4		P = 0.05

Interpretation : Table 27 shows that the value of χ^2 (calculated) is 81.08 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. The most of the respondents opined that activity are more acceptable form of examination system.

Table 28 : Academic Achievement measures just cognitive domains in higher education

	SA	A	UN	DA	SDA
Observed (f_o)	43	47	5	16	9
Expected (f_e)	24	24	24	24	24
($f_o - f_e$)	19	23	-19	-8	-15
$(f_o - f_e)^2$	361	529	361	64	225
$(f_o - f_e)^2/f_e$	15.04	22.04	15.04	2.67	9.38
Table Value = 9.49	χ^2 = 64.17		df = 4		P = 0.05

Interpretation : Table 28 shows that the value of χ^2 (calculated) is 64.17 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. It means that academic achievement measures only cognitive domain.

Table 29 : Research system in higher education is rather obtaining degrees than skills in higher education

	SA	A	UN	DA	SDA
Observed (f_o)	47	43	3	17	10
Expected (f_e)	24	24	24	24	24
($f_o - f_e$)	23	19	-21	-7	-14
$(f_o - f_e)^2$	529	361	441	49	196
$(f_o - f_e)^2/f_e$	22.04	15.04	18.38	2.04	8.17
Table Value = 9.49	χ^2 = 65.67		df = 4		P = 0.05

Interpretation : Table 29 shows that the value of χ^2 (calculated) is 65.67 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted.

Table 30 : Only semesterisation cannot improve the system

	SA	A	UN	DA	SDA
Observed (f_o)	41	47	4	18	10
Expected (f_e)	24	24	24	24	24
($f_o - f_e$)	17	23	-20	-6	-14
$(f_o - f_e)^2$	289	529	400	36	196
$(f_o - f_e)^2/f_e$	12.04	22.04	16.67	1.50	8.17

Table Value = 9.49 χ^2 = 60.42 df = 4 P = 0.05

Interpretation : Table 30 shows that the value of χ^2 (calculated) is 60.42 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted.

Table 31 : Curriculum is note based rather than creative approach is being nurtured

	SA	A	UN	DA	SDA
Observed (f_o)	31	37	6	46	0
Expected (f_e)	24	24	24	24	24
($f_o - f_e$)	7	13	-18	22	-24
$(f_o - f_e)^2$	49	169	324	484	576
$(f_o - f_e)^2/f_e$	2.04	7.04	13.50	20.17	24.00

Table Value = 9.49 χ^2 = 66.75 df = 4 P = 0.05

Interpretation : Table 31 shows that the value of χ^2 (calculated) is 66.75 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted.

Table 32 : Class hours are not well organized in a semester system

	SA	A	UN	DA	SDA
Observed (f_o)	41	44	0	20	15
Expected (f_e)	24	24	24	24	24
($f_o - f_e$)	17	20	-24	-4	-9
$(f_o - f_e)^2$	289	400	576	16	81
$(f_o - f_e)^2/f_e$	12.04	16.67	24.00	0.67	3.38
Table Value = 9.49	χ^2 =	56.76	df =	4	P = 0.05

Interpretation : Table 32 shows that the value of χ^2 (calculated) is 56.76 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted.

Table 33 : Examination system should based on continuity in higher education

	SA	A	UN	DA	SDA
Observed (f_o)	19	9	3	48	41
Expected (f_e)	24	24	24	24	24
($f_o - f_e$)	-5	-15	-21	24	17
$(f_o - f_e)^2$	25	225	441	576	289
$(f_o - f_e)^2/f_e$	1.04	9.38	18.38	24.00	12.04
Table Value = 9.49	χ^2 =	64.84	df =	4	P = 0.05

Interpretation : Table 33 shows that the value of χ^2 (calculated) is 64.84 which is greater than the table value and the result is significant at 0.05 level.

Table 34 : Examination system is teacher centric and not democratic

	SA	A	UN	DA	SDA
Observed (f_o)	41	48	6	16	9
Expected (f_e)	24	24	24	24	24
($f_o - f_e$)	17	24	-18	-8	-15
$(f_o - f_e)^2$	289	576	324	64	225
$(f_o - f_e)^2/f_e$	12.04	24.00	13.50	2.67	9.38
Table Value = 9.49	χ^2 = 61.59		df = 4		P = 0.05

Interpretation : Table 34 shows that the value of χ^2 (calculated) is 61.59 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted that examination system is teacher centric and not democratic

Table 35 : Examination measures the cognitive, affective and psychomotor domains of the students

	SA	A	UN	DA	SDA
Observed (f_o)	46	71	3	22	18
Expected (f_e)	32	32	32	32	32
($f_o - f_e$)	14	39	-29	-10	-14
$(f_o - f_e)^2$	196	1521	841	100	196
$(f_o - f_e)^2/f_e$	6.13	47.53	26.28	3.13	6.13
Table Value = 9.49	χ^2 = 89.20		df = 4		P = 0.05

Interpretation : Table 35 shows that the value of χ^2 (calculated) is 89.20 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. It means that due to the preparation for examination the students develop their cognition especially and other domains generally. The observations of the researcher and findings of the other studies also confirm this aspect of examination.

Table 36 : No systemic credit hours are followed

	SA	A	UN	DA	SDA
Observed (f_o)	52	63	7	20	18
Expected (f_e)	32	32	32	32	32
($f_o - f_e$)	20	31	-25	-12	-14
$(f_o - f_e)^2$	400	961	625	144	196
$(f_o - f_e)^2/f_e$	12.50	30.03	19.53	4.50	6.13

Table Value = 9.49 χ^2 = 72.69 df = 4 P = 0.05

Interpretation : Table 36 shows that the value of χ^2 (calculated) is 72.69 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. It shows : No systemic credit hours are followed in higher education.

Table 37 : Examination gives feedback to the students for their promotion

	SA	A	UN	DA	SDA
Observed (f_o)	66	71	2	15	6
Expected (f_e)	32	32	32	32	32
($f_o - f_e$)	34	39	-30	-17	-26
$(f_o - f_e)^2$	1156	1521	900	289	676
$(f_o - f_e)^2/f_e$	36.13	47.53	28.13	9.03	21.13

Table Value = 9.49 χ^2 = 141.95 df = 4 P = 0.05

Interpretation : Table 37 shows that the value of χ^2 (calculated) is 141.95 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. Feedback in teaching learning process works as hidden force which motivate and students for further improvement. So this study proved that existing system of examination provides the feed back to students about knowing their achievement performance and promotion.

Table 38 : Examination helps for attaining skills in a particular subject area

	SA	A	UN	DA	SDA
Observed (f_o)	57	64	6	30	3
Expected (f_e)	32	32	32	32	32
($f_o - f_e$)	25	32	-26	-2	-29
$(f_o - f_e)^2$	625	1024	676	4	841
$(f_o - f_e)^2/f_e$	19.53	32.00	21.13	0.13	26.28

Table Value = 9.49 $\chi^2 =$ 99.07 df = 4 P = 0.05

Interpretation : Table 38 shows that the value of χ^2 (calculated) is 99.07 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. The main purpose of examination system to obtain the targets so this study agreed that Examination helps for attaining skills in a particular subject area.

.

Table 39 : Examination system is not always objective based

	SA	A	UN	DA	SDA
Observed (f_o)	76	49	6	15	14
Expected (f_e)	32	32	32	32	32
($f_o - f_e$)	44	17	-26	-17	-18
$(f_o - f_e)^2$	1936	289	676	289	324
$(f_o - f_e)^2/f_e$	60.50	9.03	21.13	9.03	10.13

Table Value = 9.49 $\chi^2 =$ 109.82 df = 4 P = 0.05

Interpretation : Table 39 shows that the value of χ^2 (calculated) is 109.82 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. The study justified that supporting material notes and guess papers are not objectives based which guided the education system as a whole.

Table 40 : Examination system is summative based

	SA	A	UN	DA	SDA
Observed (f_o)	20	14	5	71	50
Expected (f_e)	32	32	32	32	32
($f_o - f_e$)	-12	-18	-27	39	18
$(f_o - f_e)^2$	144	324	729	1521	324
$(f_o - f_e)^2/f_e$	4.50	10.13	22.78	47.53	10.13
Table Value = 9.49	χ^2 = 95.07		df = 4		P = 0.05

Interpretation : Table 40 shows that the value of χ^2 (calculated) is 95.07 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. Therefore Examination system should be summative based.

Table 41 : Examination system promotes the unfair means for becoming successful

	SA	A	UN	DA	SDA
Observed (f_o)	48	77	10	17	8
Expected (f_e)	32	32	32	32	32
($f_o - f_e$)	16	45	-22	-15	-24
$(f_o - f_e)^2$	256	2025	484	225	576
$(f_o - f_e)^2/f_e$	8.00	63.28	15.13	7.03	18.00
Table Value = 9.49	χ^2 = 111.44		df = 4		P = 0.05

Interpretation : Table 41 shows that the value of χ^2 (calculated) is 111.44 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. The study agreed that this system to examination works as a look for using the unfair means for securing the success. Student adopt the easy approaches for becoming successful in their examination.

Table 42 : Examination discourages the studious students

	SA	A	UN	DA	SDA
Observed (f_o)	9	30	7	66	48
Expected (f_e)	32	32	32	32	32
($f_o - f_e$)	-23	-2	-25	34	16
$(f_o - f_e)^2$	529	4	625	1156	256
$(f_o - f_e)^2/f_e$	16.53	0.13	19.53	36.13	8.00

Table Value = 9.49 χ^2 = 80.32 df = 4 P = 0.05

Interpretation : Table 42 shows that the value of χ^2 (calculated) is 80.32 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. The majority of the students agreed that hardworking students get less marks than the poor students who adopt unfair means in the examination or those who do selective study.

Table 43 : Effective examination system is the way for attaining goals of education

	SA	A	UN	DA	SDA
Observed (f_o)	58	66	6	17	13
Expected (f_e)	32	32	32	32	32
($f_o - f_e$)	26	34	-26	-15	-19
$(f_o - f_e)^2$	676	1156	676	225	361
$(f_o - f_e)^2/f_e$	21.13	36.13	21.13	7.03	11.28

Table Value = 9.49 χ^2 = 96.70 df = 4 P = 0.05

Interpretation : Table 43 shows that the value of χ^2 (calculated) is 96.70 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. The study concluded that effective examination System is the way for attaining goals of education .

Table 44 : Objectives and examination systems are highly related

	SA	A	UN	DA	SDA
Observed (f_o)	61	67	4	16	12
Expected (f_e)	32	32	32	32	32
($f_o - f_e$)	29	35	-28	-16	-20
$(f_o - f_e)^2$	841	1225	784	256	400
$(f_o - f_e)^2/f_e$	26.28	38.28	24.50	8.00	12.50
Table Value = 9.49	χ^2 =	109.56	df =	4	P = 0.05

Interpretation : Table 44 shows that the value of χ^2 (calculated) is 109.56 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. The study shows the positive correlation between Objectives and examination system.

CHAPTER – V

SUMMARY AND CONCLUSION

CHAPTER – V

SUMMARY AND CONCLUSION

5.1 Introduction

Examination system in higher education has been defined in numerous ways. The first set of examination system build a framework with the application of curriculum knowledge and data through examination policies & practices. Objectives of examination systems in higher education should be judged successfully through educational output of the learners.

Secondly, from the perspective of examination model some other features appear as usually descriptive, explaining a process or prescriptive, a set of procedures or a sequence of steps about how to do something. Examination systems accommodate different purposes and uses. There are models for thinking about examination matters in a particular way. Others are guides for doing particular types of work, such as reaching a consensus on the goals or purposes a curriculum should serve.

Tyler's Rationale model begins with four basic curriculum questions which are most useful in any examination systems in some changing way in higher education described below :

a) What educational purposes should any institution seek to attain and how far examination systems are useful to inculcate those aspects ?
b) What educational experiences can be provided that is likely to attain these purposes and what activities are provided for attaining those goals through examination systems ?
c) How can these education experiences be effectively organized in an examination system ?
d) How can we evaluate whether these purposes are being attained ?

The first question directs you to the goals and the objectives of education and research should serve and how far examination systems are being utilized.

The second question deals with the scope of the examination system. What should be included to meet those goals. The third question asks how the content would be organized, a sequence matter in an examination system. The fourth question, how will we know if we achieve the intended, refers to the need for evaluation. Answers to these four questions with regard to a develop curriculum framework may help one to judge that curriculum or curriculum phenomena.

The nature of examinations at universities in India mostly based on teaching-learning process because they are selective in nature. There is an acute need to reform this examination system so that it tests understanding rather than memory. Analytical abilities and creative thinking should be at a premium. Learning by rote should be at a discount. Such reform would become more feasible with decentralized examination and smaller universities. But assessment cannot and should not be based on examinations alone. There is a clear need for continuous internal assessment which empowers teachers and students alike, just as it breathes life back into the teaching learning process. Such internal assessment would also foster the analytical and creative abilities of students which are often a casualty in university-administered annual

5.2 Background Study

The Education Commission under the chairmanship of Dr. D. S. Kothari has expressed concern over the dismal picture of school education and the defective system of evaluation. Some of the reforms suggested by the Education Commission are as follows :

- Examination should be a continuous process and therefore, must be done by internal assessment made by school teacher. It should form an integral part of the total education system of education.
- Attempts should be made to improve the written and external examination. So as to make it a valid and reliable measures o educational achievement.
- Techniques should be devised to measure the non cognitive learning

outcomes, which cannot be measured through written examination.

- There should be public or external examination at the end of class X, XI at the level of school and public examination at the end each o the year of the University examination.
- Some marks should be reserved for viva-voce examination especially in the practical subjects.
- The standard of the external examinations should be raised.
- There should be an evaluation organization in each stage to prescribe maintain and revive the standard of examination.

5.3 The Committee on Examination (1970)

A committee on examination was set up by C. A. B. E. in May 1970 to examine the present situation and make recommendation to counteract malpractices and to give protection to invigilators and other concerned with examination. This commission was headed by the Union Education Minister and made important recommendations.

5.4 International Commission on Education (1972)

The commission recommended several reformations for examinations. It stated "Real evaluation of a pupil's achievement should be based not on a single, summary examination but on over all observation of his work throughout a course of study. It should pay less attention to the volume of memorized knowledge and more to the development, of his intellectual capacity, reasoning ability, critical judgment an proficiency in problem solving. The commission gave useful suggestions for reforming our examination system.

It is apparent from the above discussion that the different commissions and committees pointed out the major goals of the programme of examination reform and the suggestion aimed at :

- To make the examination a valid and reliable measure of pupil's growth. This

means that examination system should be changed from the evaluation of merely academic achievement to the evaluation of 'pupils' growth in both academic and non-academic areas.

- Change from periodical evaluation to continuous evaluation.
- Eliminating subjectivity and incidence of chance as far as possible.
- Minimizing the role of memorization so that other desirable and higher objectives like understanding and application of knowledge to newer situations and critical thinking can be assessed in overall evaluation.
- Change from limited coverage of the syllabus to its effective coverage by assigning due weightage to the various areas of content for developing question papers. Thus discouraging selective study and selective teaching which are possible under the traditional scheme.
- Change from fewer questions to a large number of questions. This is a natural of corollary of the previous point.
- Change from the use o one form of question to the use of variety of forms. This is also a naturally corollary o the suggestions. Other than all essay type question requiring long answers, the reformed scheme encourage inclusion of short answer type and objective question of various types like true, false and also filling the blanks and multiple choice types.
- Change from vague questions to specially worded questions. In the present system the "discuss", evaluate", "elucidate" are used almost indiscriminately and the examinees write all that they know about he topic.
- Making examinations a powerful instrument of improved teaching and learning through feedback.

This paper emphasized on social prestige of examinations, measurement aspects of examinations which deals with validity and reliability ,objectives, feedback and impact, neglected perspectives of examination, public examinations, analysis of examination results, school examination and internal

assessment, neglect of affective and psychomotor domains, diagnosis and remediation, ecological aspects of examinations. The research had given priority to the new roles of examinations, teacher based assessment, student development, better judgments, illuminative evaluation, programmed evaluation. The following points were focused on the paper

- Objectives
  - Methodologies
  - Attitudes
  - Concept development
  - Student evaluation
  - Evaluation model

- Feedback and impact
  - Social impact of testing
  - Effect of knowledge on results
  - Improvement of instruction
  - Consequences of misusing tests
  - Feed back of results
  - Development of self-concept
  - Test for teaching
  - Diagnosis and students drop-out
  - Individual instruction

- Neglected Perspective
  - Philosophical
  - Psychological
  - Social

- Neglected area
  - Psychomotor
  - Affective

- Public examination
  - Construction and standardization of achievement test
  - Marking and grading
  - Study of examination results

- School examination
  - Internal assessment
  - External assessment
  - Achievement of cognitive, affective and psychomotor objectives
  - Diagnosis and remediation
  - Role of teacher and attitudes towards internal assessments

- Economical aspect of examination
  - Low validity and reliability of examination which is discouraging
  - Loss of money and time
  - More unit test to motivate student for better learning

- Validity and reliability
  - Predictive validity of examination
  - Content reliability
  - Total reliability

- Mechanics of examinations/form and functioning
  - Social, academic, psychological and philosophical climate of the institution
  - Poorly developed and badly administered objective type questions

- Total examination procedure
- Examiners, design, blue print
- Malpractice

➢ Analysis of examination results

- Pass, fail
- Wastage, stagnation
- Performance of the pupil
- Effectiveness of the instructional process

5.5 Setting of Question Papers –A NCERT Seminar Paper by V. Natarajan

This paper focused on kind of questions which are asked in public examinations at all levels, determine to a large extent the kind of teaching done in the classroom. Most questions asked are stereotyped, repetitive and memory based. It is only occasionally that questions asked tend to assess the understanding of a student or his ability to apply whatever he has learnt to a problem or situation with which he is not familiar. The following points were focused in the paper;

➢ Item must measure an important learning outcome.
➢ Concern on important content area.
➢ Difficulty level must be appropriate to the level of students learn.
➢ Discriminate among the students.
➢ Item must include one central idea in a statement.
➢ Statement precise.
➢ Brief and simple sentence.

5.6 Non-Scholastic Aims and Objectives and Evaluation Thereof : Method of Education – A Seminar Paper by V. N. Abhayankar in a NCERT Seminar

This paper focused on the following points :

- Objectives of teaching the subjects
  - Mathematics, social and natural science
  - Getting mastery over each subject and creating a desire to solve problems connected with it.

- Objectives
  - Writing
  - Memorization
  - Reading
  - Speaking
  - Critical listening
  - Independent writing
  - Criticism
  - Increasing research ability

- Learning skills
  - Speed of reading
  - Creative thinking
  - Note-taking
  - Precise writing
  - Physical & emotional development

- Various activities to develop physical and emotional aspects such as study
  - circles
  - camps

- meetings
- drawing
- planning

➢ Cultural day

➢ Evaluation and daily teaching

➢ The pattern of oral examination

➢ Ranks, prizes ,promotions

➢ Conduct and participation

5.7 A Brief Note on the Scope of Public Examination - A Seminar Paper presented by Krishan Chand Jain in a NCERT Seminar

The paper focused on public examination and its scope. The following points were focused on the study :

➢ Scope

- Scholastic achievement
- Physical health
- Personal and social qualities as discipline
- Regularity
- Punctuality
- Habits of cleanliness
- Emotional stability
- Interest
- Co-curricular activities
  - ❖ Debate
  - ❖ Recitation
  - ❖ Drama
  - ❖ Music
  - ❖ Dance
  - ❖ Science club

- ❖ Outdoor games
- ❖ Gardening

➢ Tools

- ❖ Rating scale
- ❖ Anecdotal reports
- ❖ School records

➢ Certificate

The task will help the teachers, education thinkers, curriculum planners and specialists to know whether the present examination system is up to the mark or not. Teachers would be able to know whether the present examination system is satisfied by the students or not. Similarly, the educational thinkers and experts would be helpful by knowing the attitude of students towards the present examination system.

The study would help to know the future scope of the students, their present achievements and I affect their daily life.

The present examination system has been analyzed by the researcher and a questionnaire has also been prepared by him. This would help the educational planner and curriculum framer a lot.

The study would inspire future researchers to do further researcher in the field.

5.8 Objectives of the Study

1. To study the examination system in higher education.
2. To analyze examination system in respect to academic achievements.
3. To study different aspects in higher education through graphical analysis.
4. To investigate the influence of examination system on academic achievement.
5. To find out different Examination systems related to higher education in terms of non-parametric statistics.

5.9 Tools

1. A standardized Questionnaire is used for data gathering device for graphical analysis
2. A standardized Questionnaire regarding examination system for conducting inferential statistics through Chi-Square testing.

5.10 Population

First year graduation students of the study are considered as population in West Bengal.

5.11 Sample

Selected colleges of first year students are considered as sample.

5.12 Findings from Questionnaire No. 1

1. Graph Q. 1 shows that 38.12 % student agreed with the statement, 50.62% disagreed with the statement and 11.25% did not comment on the particular statement. So, it is clear from the above responses that a majority of the students think that the examination system does not measure the application ability of the acquired knowledge.
2. Graph Q. 2 shows that 60.5 % students agreed with the statement, 33.12% student disagreed with the statement and 6.36% did no comment. So, it can be said that a majority of the student think that present examination system does not enables the student to read, write and speak for having perception.
3. Graph Q. 3 shows that 52.2 % disagreed with the statement, 36.47% agreed with the statement and 11.32% did not comment. So, it can be concluded that present examination system do not supported by a majority of the student in measuring the independent thinking ability.
4. Graph Q. 4 shows that 52.2% disagreed with the statement, 37.73% agreed

with the statement and 10% did not comment. So, it can be concluded from the above percentage of responses that present examination system does not supported by a large no. of students in increasing the mental ability of the students.

5. Graph Q. 5 shows that 52.2% student disagreed with the statement, 37.73% of student agreed with the statement and 10% student remained neutral. So, it can be concluded that the existing examination system does not supported by a majority of the student in measuring the moral development in students.
6. Graph Q. 6 shows that 56.25% student disagreed with the statement, 35.62% student agreed with the statement and 8.12% student did not comment. So, it is clear that a majority of the student think that present examination system do not evaluate the abilities properly.
7. Graph Q. 7 shows that 53.75% student disagreed with the statement, 27.5% agreed with the statement and 18.75% remained neutral. So, it can be concluded that a majority of the student think that the present examination system do not able to differentiate the intellectual ability among the students.
8. Graph Q. 8 shows that 54 % student disagreed with the statement, 33.33% agreed with the statement and 12.57% did not comment. So, it can be said that the present examination system do not supported by the student in the view regarding selection of proper carrier or stream of study.
9. Graph Q. 9 shows that 47.5% student disagreed with the statement, 35% student agreed with the statement and 17.5% remained neutral. So, it can be concluded from the above responses that the present examination system do not supported by the students in the view regarding diagnosis of weakness in learned knowledge.
10. Graph Q. 10 shows that the 49% disagreed with the statement, 37.5% agreed with the statement and 13.37% did not comment. So, it can be

concluded that the present examination system do not supported by a majority of the student in the view regarding reflection of student's present state of education in examination.

11. Graph Q. 11 shows that 48.75% disagreed with the statement, 35.62% agreed with the statement and 15.62% remained neutral. So, it can be concluded from the above responses that a majority of the student think that present examination system do not help in all round development.
12. Graph Q. 12 shows that 55% of the student disagreed with the statement, 36.25% student agreed with the statement and 8.755 students did not comment. So, it can be said that a majority of the student think that the present system do not able to help the student in developing self consciousness.
13. Graph Q. 13 shows that 58% student disagreed with the statement, 26% agreed with the statement and 15.6% remained neutral. So it can be said that from above responses a good percentage of the student think that present examination system is faulty.
14. Graph Q. 14 represents that 53.7% of the student disagreed with the statement, 32% agreed with the statement and 13.9% remained neutral. So, it is clear from the above responses that majority of the student think that the present examination system does not reduce 'drop-out'.
15. Graph Q. 15 shows that 58% student disagreed, 34% student agreed and 9% student remained neutral. So, it can be said that the present examination system do not supported by a majority of the student in the view regarding eradication of 'exam phobia'.
16. Graph Q. 16 shows that 71 % student agreed with the statement, 22% disagreed with the statement and 5% remained neutral. So, it is clear from the above responses that majority of the student think that present examination should be improved.
17. Graph Q. 17 shows that 40.5% student disagreed with the statement,

41.13% agreed with the statement and 18.35% remained neutral. So, it is not clear from the above responses that the view regarding replacement of present examination system with the continuous evaluation system is justifiable or not.

18. Graph Q.18 shows that 63.75% student agreed with the statement, 24.3% disagreed with the statement and 11.8% remained neutral. So, it is clear from the above responses that majority of the student think that mental pressure should be minimized in the examination system.
19. Graph Q. 19 shows that 55.62% student agreed with the statement, 36.8% student disagreed with the statement and 7.5% did not comment. So, it can be said that a majority of the student think that the gradation system is justifiable.
20. Graph Q. 20 shows that 56% student agreed with the statement, 31% student disagreed with the statement and 11.8% remained neutral. So, it can be said from the above responses that a majority of the student think that steps should be taken to stop malpractices.
21. Graph Q. 21 shows that 50.6% student disagreed with the statement, 32.9% student agreed with the statement and 16.45% did not comment. So, it can be said from the above responses that majority of the student think that the existing examination system do not evaluate the co-curricular activities.
22. Graph Q. 22 shows that 51.25% student agreed with the statement, 35.6% disagreed with the statement and 13% did not comment. So, it is clear from the graph that a majority of the student think that co-curricular activities develop personality.
23. Graph Q. 23 shows that 65% of the student agreed with the statement, 26.8% student disagreed with the statement and 7.5% remained neutral. So, it can be said that a majority o the student think that the co-curricular activities helpful in joyful learning.
24. Graph Q. 24 shows that 50% student agreed with the statement, 34.3%

student disagreed with the statement and 15.6% remained neutral. So, it can be said from the above responses that a majority of the student think that the co-curricular activities develop social qualities.

25. Graph Q. 25 shows that 61% student agreed with the statement, 21.8% student disagreed with the statement and 16.8% student remained neutral. So, it can be concluded that a large no. of students think that the co-curricular activities develop the ability to work together.
26. Graph Q. 26 shows that 54% student disagreed with the statement, 40% student agreed with the statement and 5% did not comment. So, it can be said from the above responses that a majority of the students think that the present examination system do not increase the interest towards learning.
27. Graph Q. 27 shows that 49% student disagreed with the statement, 23.75% student agreed with the statement and 26.87% remained neutral. So, it can be said that a large no. of students think that the present examination system do not increase the motivation.
28. Graph Q. 28 shows that 49.6% student disagreed with the statement, 35.8% student agreed with the statement and 14.4% remained neutral. So, it can be concluded that a majority of the students think that the present examination system do not help to express.
29. Graph Q. 29 shows that 53% student disagreed with the statement, 38.7% student agreed with the statement and 8% remained neutral. So, it can be said that present examination system do not supported by a large no. o students in the view regarding fight against superstition.
30. Graph Q. 30 shows that 46.5% student agreed with the statement, 32.7% disagreed with the statement and 20.7% did not comment. So, a majority of the students supported that present examination system help to develop independency.
31. Graph Q. 31 shows that 48.7% student agreed with the statement, 35.6% student disagreed with the statement and 15.6% remained neutral. So, it

can be said that a majority of the students think that the semester system of examination is justifiable.

32. Graph Q. 32 shows that 44.65% student disagreed with the statement, 40.88% student agreed with the statement and 14.46% did not comment. So, it is not clear from the responses about the statement regarding whether the semesterisation can enable to desirable change.
33. Graph Q. 33 shows that 54.3% student agreed with the statement, 31.25% disagreed with the statement and 14.3% remained neutral. So, it can be concluded from the above responses that a majority of the students think that change of teaching techniques improve examination results of students.
34. Graph Q. 34 shows that 44.3% student disagreed with the statement, 39.3% student agreed with the statement and 16% remained neutral. So, it is not distinctly clear from the above responses that whether gradation is better than marks system or not.
35. Graph Q. 35 shows that 48% student agreed with the statement, 37% disagreed with the statement and 14.5% did not comment. So, it can be said from the above responses that a majority of the students think that co-curricular activities should be assessed properly along with academic activities.
36. Graph Q. 36 shows that 53.75% student agreed with the statement, 35.6% student disagreed with the statement and 10.62% remained neutral. So, it can be said from the above responses a majority of the students think that more examination affects the syllabus completion in time.
37. Graph Q. 37 shows that 36.25% student disagreed with the statement, 33.75% agreed with the statement and 30 % remained neutral. Here responses are divided. It is not clear that whether MCQ types can measure subject depth or not.
38. Graph Q. 38 shows that 49.68% agreed with the statement, 33.33%

disagreed with the statement and 16.98% did not comment. So, it can be said that a majority of the student think that less importance is given to the non-academic activities.

39. Graph Q. 39 shows that 49.3% student agreed with the statement, 33.7% disagreed with the statement and 16.87% remained neutral. So, it can be said that a majority of the student think that present examination system do not give emphasis on vocational stream.
40. Graph Q. 40 shows that 55% of the student agreed with the statement, 33.75% disagreed with the statement and 11.25% remained neural. So, it is clear that a majority of the student think that frequent examination raise mental pressure.
41. Graph Q. 41 shows that 72% student agreed with the statement, 22.78% disagreed with the statement and 5% remained neutral. So, it can be said that a large no of students think that checked answer sheet should be shown to the student.
42. Graph Q. 42 shows that 51.8% student disagreed with the statement, 37.5% agreed with the statement and 10.6% remained neutral. So, it can be said that a majority of the students think that answer sheets are not properly checked.
43. Graph Q. 43 shows that 60% student disagreed with the statement, 28% agreed with the statement and 11.8% remained neutral. So , it can be said that a majority of the students not supported that more internal examination should be arranged.
44. Graph Q. 44 shows that 43% student disagreed with the statement, 38% agreed with the statement and 18.7% remained neutral. So, it can be said that a majority of the students do no think that examinations are waste of time.
45. Graph Q. 45 shows that 51.5% student disagreed with the statement, 38.99% agreed with the statement and 9.43% remained neutral. So, it can

be concluded that a majority of the students do not think that results of the examination motivates to give more examination in future.

46. Graph Q. 46 shows that 47.79% student disagreed with the statement, 40.88% agreed with the statement and 11.3% remained neutral. So, it can be said that a majority of the student do not think that instructions in the question paper are clearly understood by them.
47. Graph Q. 47 shows that 60.6% student disagreed with the statement, 28.75% agreed with the statement and 10.62 % remained neutral. So, it can be said that a large no. of students do not think that examination schedule are announced in advance.
48. Graph Q. 48 shows that 76.72% student agreed with the statement, 18.23% disagreed with the statement and 5% remained neutral. So, it is clear that a majority of the student think that examination schedules are properly maintained.
49. Graph Q. 49 shows that 53% student disagreed with the statement, 40% agreed with the statement and 6% remained neutral. So, it can be said that a majority of the student do not think that checked answer sheets are shown to the student in a particular day.
50. Graph Q. 50 shows that 66.2% student agreed with the statement, 26.87% disagreed with the statement and 6.87% remained neutral. So, it can be said that a majority of the student think that examination results are published in a fixed day.

5.13 Findings from Questionnaire No. 2

1. Table 1 shows that the value of χ^2 (calculated) is 80.59 which is greater than the table value. Hence, the result is significant at 0.05 level, Therefore, the statement is accepted. It means that Examination System improves the teaching learning process.

2. Table 2 shows that the value of χ^2 (calculated) is 76.93 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. It can concluded that teacher can improve his performance on the basis of feedback received from the students.
3. Table 3 shows that the value of χ^2 was found 97.92 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement, Achievement encourages and guess paper, supporting material, notes instead of valuing the subjects. Examination system encourages the other supporting material for the students and teachers which includes the guess paper, notes and guidebooks. Due to this teachers and students prefer selective study.
4. Table 4 shows that the value of χ^2 came to 83.17 when calculated which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. Now a days the examination system is only a label for the students to pass or fail. The student of failure is so dangerous for the young students that they commit crimes of various types.
5. Table 5 shows that the value of χ^2 when calculated came to 77.26 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is rejected. Examination confirms students in the preparation to get good marks by adopting different means. It does encourage students to w2iden the limit of knowledge. It can be concluded that Examination focuses on academic load instead of giving true knowledge.
6. Table 6 shows that the value of χ^2 (calculated) was found 124.26 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. Our examination system is so weak that the influential people manipulate different types of unfair means for obtaining more marks. As the examination system moves around marks instead of getting knowledge, the candidates use unfair means for

containing more marks avoiding morality and lack of objectives from the system.

7. Table 7 shows that the value of χ^2 (calculated) is 130.34 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted.
8. Table 8 shows that the value of χ^2 (calculated) is 99.59 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. The study concluded that the secrecy arrangements about the papers are ineffective.
9. Table 9 shows that the value of χ^2 was found to be 69.01 is greater than the table value and the result is significant at 0.05 level against the statement is rejected. The study concluded that the Non perception is also an ability to improve conceptual Quality.
10. Table 10 shows that the value of χ^2 was found 92.01 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted.
11. Table 11 shows that the value of χ^2 (calculated) is 88.96 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. It can be concluded that : Curriculum do not satisfy the whole objectives leading to examination system.
12. Table 12 shows that the value of χ^2 (calculated) is 33.10 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. The study concluded that : Development of memorization rather than perception is the key factor for attaining success in examination system.
13. Table 13 shows that the value of χ^2 (calculated) is 46.67 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. The study concluded that the weaknesses of teachers

are also measured more effectively by observing their professional attitude in a output based examination system

14. Table 14 shows that the value of χ^2 (calculated) is 61.92 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. The study proved that the Internal Examination mode is more reliable and valid with reference to content and fulfilment of objectives.
15. Table 15 shows that the value of χ^2 (calculated) is 51.35 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted.
16. Table 16 shows that the value of χ^2 (calculated) is 68.16 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted
17. Table 17 shows that the value of χ^2 (calculated) is 55.17 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted
18. Table 18 shows that the value of χ^2 (calculated) is 28.01 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted.
19. Table 19 shows that the value of χ^2 (calculated) is 61.42 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. The study approved that some teacher teach only some portions of topics or teach limit parts of syllabus / content.
20. Table 20 shows that the value of χ^2 (calculated) is 76.93 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement value based education promotes healthy competition and comparison among the institutions is accepted. The healthy competition and comparison among the institutions which promotes the same of more hard work and labour. It also has an effective impact on the accreditation of

institutional results. The institutions utilize maximum available resources in novel ways to increase their credibility.

21. Table 21 shows that the value of χ^2 (calculated) is 98.59 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. The study concluded that existing mode of examination does not promote the idea of around development of personality. It just measures the cognitive skills of the students and rest of the personality traits are ignored.
22. Table 22 shows that the value of χ^2 (calculated) is 69.33 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. The study concluded that much time is consumed in our universities due to prevailing system of examination. Because there is an internal of about three to four months from its conduct to the announcement of result. On this ground existing mode may be named as time wasting process.
23. Table 23 shows that the value of χ^2 (calculated) is 73.17 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted, leading to have a decision is that examination system is not always neutral.
24. Table 24 shows that the value of χ^2 (calculated) is 43.33 which is greater than the table value and the result is significant at 0.05 level.
25. Table 25 shows that the value of χ^2 (calculated) is 69.42 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. It means learning style should be given more importance on achieving objectives.
26. Table 26 shows that the value of χ^2 (calculated) is 44.33 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is rejected. It means Broader area of subject matter does not cover for developing skills on achievement.

27. Table 27 shows that the value of χ^2 (calculated) is 81.08 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. The most of the respondents opined that activity are more acceptable form of examination system.
28. Table 28 shows that the value of χ^2 (calculated) is 64.17 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. It means that academic achievement measures only cognitive domain.
29. Table 29 shows that the value of χ^2 (calculated) is 65.67 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted.
30. Table 30 shows that the value of χ^2 (calculated) is 60.42 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted.
31. Table 31 shows that the value of χ^2 (calculated) is 66.75 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted.
32. Table 32 shows that the value of χ^2 (calculated) is 56.76 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted.
33. Table 33 shows that the value of χ^2 (calculated) is 64.84 which is greater than the table value and the result is significant at 0.05 level.
34. Table 34 shows that the value of χ^2 (calculated) is 61.59 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted that examination system is teacher centric and not democratic.
35. Table 35 shows that the value of χ^2 (calculated) is 89.20 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. It means that due to the preparation for examination

the students develop their cognition especially and other domains generally. The observations of the researcher and findings of the other studies also confirm this aspect of examination.

36. Table 36 shows that the value of χ^2 (calculated) is 72.69 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. It shows : No systemic credit hours are followed in higher education.
37. Table 37 shows that the value of χ^2 (calculated) is 141.95 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. Feedback in teaching learning process works as hidden force which motivate and students for further improvement. So this study proved that existing system of examination provides the feed back to students about knowing their achievement performance and promotion.
38. Table 38 shows that the value of χ^2 (calculated) is 99.07 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. The main purpose of examination system to obtain the targets so this study agreed that Examination helps for attaining skills in a particular subject area.
39. Table 39 shows that the value of χ^2 (calculated) is 109.82 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. The study justified that supporting material notes and guess papers are not objectives based which guided the education system as a whole.
40. Table 40 shows that the value of χ^2 (calculated) is 95.07 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. Therefore Examination system should be summative based.
41. Table 41 shows that the value of χ^2 (calculated) is 111.44 which is greater than the table value and the result is significant at 0.05 level. Therefore, the

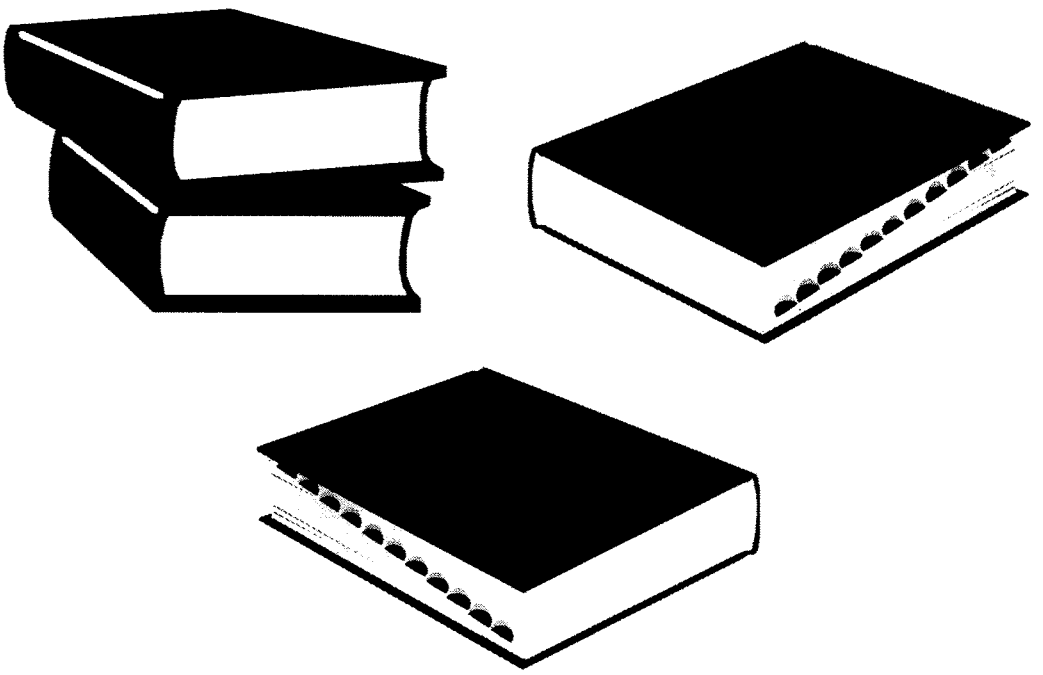
statement is accepted. The study agreed that this system to examination works as a look for using the unfair means for securing the success. Student adopt the easy approaches for becoming successful in their examination.

42. Table 42 shows that the value of χ^2 (calculated) is 80.32 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. The majority of the students agreed that hardworking students get less marks than the poor students who adopt unfair means in the examination or those who do selective study.
43. Table 43 shows that the value of χ^2 (calculated) is 96.70 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. The study concluded that effective examination System is the way for attaining goals of education.
44. Table 44 shows that the value of χ^2 (calculated) is 109.56 which is greater than the table value and the result is significant at 0.05 level. Therefore, the statement is accepted. The study shows the positive correlation between Objectives and examination system.

5.14 Conclusion

Examination is an important phenomenon in the education system which ultimately determines the output of the total education scenario.. Teaching, learning and assessment go side by side & integral part of this system. Examination system is a very strong indicator of the effectiveness of education trying to find out in the study. It is increasingly observed and felt, the present system of education in higher education is failed to achieve in its goal of knowledge construction and expected the level of competencies, based on examination system. Attempts have been made to overcome this systems of education but because examinations fulfill many educational and social responsibilities, hence the great need to reform the examination system have had an urgency for productive and outcome based education system.

BIBLIOGRAPHY



BIBLIOGRAPHY

1. Abhayankar, V. N. (1985). Non–Scholastic Aims and Objectives and Evaluation Thereof : Method of Education-A seminar paper published by N. C. E. R. T., New Delhi.
2. Aggarwal, J. C. (2004). Essentials of Examination System Evaluation, Tests and Measurement, Vikas Publishing House Pvt. Ltd. , New Delhi.
3. Angelo, T. and Cross, K. P. (1993). Classroom assessment techniques : A handbook for college teachers. San Francisco
4. Augsberger, D. (1992). Examination Pathways and Patterns. Lousville, Kentucky : Westminster / John Knox Press.
5. Banerjee, N. P. (1983). "Strategies of Educational Research", The Associated Publishers, Ambala Cantt.
6. Best John, W. and Kahn James V. (1993). "Research in Education", Prentice Hall of India Private Limited, New Delhi.
7. Best, J. W. & Kahn, J. V. (2008). Research in Education (2nd impression).Pearson Education, Inc. and Dorling Kindersley Publishing, Inc., India.
8. Bloom, B.S. As Chairman(1961) : Evaluation in Higher Education, A report of the Seminar and the Examination Reform, Organized by the University Grants Commission, New Delhi.
9. Brislin, R. (1990). Applied Cross-Cultural Psychology : An Introduction. In Applied Cross-Cultural Psychology. Cross-Cultural Research and Methodology Series, Newbury Park, California : Sage. Bantock, G. H. (1980). Dilemma of the curriculum. New York : Wiley.
10. Buch, M. B. "Third Survey of Research in Education (1978–1983)", Society for Educational Research and Development, Baroda.
11. Calmano, Michael (1983). "Curriculum Theory and Moral Education". The University of Chicago, Ph. D.

12. Chakrabarty, J. C. (1992). "Modern Education : Its Aims and Principles", K. Chakrabarty Publication, Kolkata.
13. Chakrabarty, J. C. (1995). "A Hand Book of Educational Sociology", K. Chakraborty Publication, Kolkata.
14. Chowdhury, S. V. S. and Sashi Kumar, K. G. (1996). "Curriculum and Instruction". Indira Gandhi National Open University, New Delhi.
15. Connelly, F. M. and Clandinn, D. J. (1988). Teachers as curriculum planners : Narratives of experience. New York : Teachers College Press.
16. Coppock, G. Stephen (1986). "Curriculum offerings and occupational needs". Sullivan Junior College of Business.
17. Delors, J. et al. (1996). Learning : The Treasure Within, Report to UNESCO of the International Commission on Education for the Twenty-first Century, UNESCO Publishing, Paris.
18. Delors, J. et al. (1998). Education for the Twenty-first Century : Issues and prospects, UNESCO Publishing, Paris.
19. Department For International Development (1999) Learning opportunities for all : A Policy Framework for Education, DFID, London.
20. Department For International Development (1999). Towards Responsive Schools.
21. Department For International Development (2001) The Challenge of Universal Primary Education, DFID, London, Department for International Development. Children out of School, Issues Paper, DFID, London.
22. Dewasthalee, R. B. (1978). "An investigation into the present secondary education curricula (Std. V to X) in the Mathematics State with a view to revision with reference to vocationalization at all levels", Ph. D. Edu., Bombay.
23. Dodds, T. and Inquai S. (1983). Education in Exile. Cambridge : International Extension College.

24. Dr. Chattopadhyay, Saroj (1993). "Principles of Education", New Central Book Agency Private Limited, Kolkata.
25. Duffield, M. (2001). Global Governance and the New Wars, Zed Books Huntington, S. 1998. The Clash of Civilizations and the Remaking of World Order. Touchstone Books.
26. Eble, K. (1988). The craft of teaching (2nd ed).. San Francisco : Jossey-Bass.
27. Exploratory Overview, Educational Review 54,1. Harris, Lan (2002) : Conceptional Underpinnings of Peace Education. In : Salomon / Nevo 2002, 15–26.
28. Flanagan in McNeil, John D., Examination System : A Comprehensive Introduction, 3rd Ed. (Boston : Little, Brown and Co., 1985), p. 205.
29. Garret H. E. and Wood Worth, R. S. (1981). "Statistics in Psychology and Education", Vakils, Feffer and Simons Ltd., Bombay.
30. Ghosh, Kalyan (2002–2003). "Comparative Study of the Curriculum between West Bengal and Central Board at Primary levels", Dissertation, Edu., K. U.
31. Gillett, C.R.F. (1957). International Understanding, Berlin.
32. Government of India (1955). Report of the States Reorganization Commission, New Delhi.
33. Gupta, A. K. (1975) : Examination Reforms : Directions, Research & Implication, Sterling Publications, New Delhi.
34. Gupta, Mohit & Aggarwal. (2008).Social Research Methods. (4th ed.). Kalyani Publishers, New Delhi.
35. Harper, A. E. (1971).Jr. Education Testing Relevance to India, A Report of the I. U. B. Seminar on Examinations.
36. Interagency Network for Education in Emergencies (2004). Working Group on Minimum Standards for Education in Emergencies. Geneva : INEE (www.ineesite.org/standards/overview.asp, 07.08.2004).

37. Isaac, Annette (1999). Education and Peace Building – A Preliminary Operational Framework. CIDA, Ottawa.
38. Jackson, P. W. (1992) . Handbook of Research on Curriculum. New York: Macmillan.
39. Jackson. P. W. (1968). Life in Classrooms. New York : Holt, Rinehart and Winson.
40. Jain, Krishan Chand.(1985). A Brief Note on the Scope of Public Examination. A seminar paper published by N. C. E. R. T., New Delhi.
41. Joshi, G. N. (1954). The Constitution of India, 3rd edition, London.
42. Jossey Bass, Brookfield, S. D. (1995). Becoming a critically reflective teacher. San Francisco : Jossey-Bass.
43. Kalra, R. M. and Singh, R. R. (1985). "Curriculum Construction for Youth Development", Sterling Publishers Private Limited, New Delhi.
44. Kelly, A. V. (1989). "The Curriculum : Theory and Practice" , London, Paul Chapman Publishing, London.
45. Kenneke, L. (1995). "A guide for evaluation of technical and vocational education curricula". UNESCO, Paris, ILO International Training Course.
46. Koehler, Werner (1994). Traditional and New Dimensions of International Education. An Annotated Bibliography. Berlin : Institute fur allgemeine Pedagogic.
47. Kothari, C. R. (2005). Research Methodology; Methods and Technique (2nd Ed)..New Age International Pvt. Ltd. New Delhi.
48. Koul, Lokesh (2005). "Methodology of Educational Research", Vikash Publishing House Limited, New Delhi.
49. Koul, Lokesh, (2008).Methodology of Educational Research (4th ed).. Vikas Publishing House Pvt. Ltd., Kanpur, U.P.
50. Kreimer, A & Eriksson, J. & Muscat, R. & Arnold, M. & Scott, C. (1998). The World Bank's Experience.

51. Krueger, Alan and Jitka Maleckova (2002). Lessons from Cambodia, Rwanda, Guatemala and Somalia, World Bank, Washington D.C.
52. Lederach, John Paul (1997). Building Peace. Sustainable Reconciliation in Divided Societies. Washington DC : United States Institute of Peace Press.
53. Liberman, A. (1999). School reform behind the scenes. New York : Teachers' College Press.
54. Mamindi, M. R. and Ravishankar, S. (1984). Curriculum Development and Educational Technology, New Delhi : Sterling Publishers.
55. Menon, V. P. (1956), The Story of the Integration of the Indian States, New York, Macmillan.
56. Miel, A. (1946). Changing the curriculum, a social process, New York : Appleton- Century Company.
57. Minority Rights Group International & UNICEF (1997). War : The Impact on Minority and Indigenous Children, Redwood Books, UK.
58. Mohan, Lal, (1984), 'Harmony among Peoples of the Northeastern Region and between it and the Rest of India' in Abbi, B. L., ed. Northeast Region: Problems and Prospects of Development Chandigarh, Center for Research in Rural and Industrial Development, pp. 202-215.
59. Murlidharan, Sukumar (2000). 'The Birth of Three States', The Frontline, August 19, (www.hundunnet.com/fline/fl1717/17170340.html).
60. Musgrave, P. W. (1968). The school as an organization. London : Macmillan.
61. Nadler, Arie (2002). Postresolution Processes : Instrumental and Socioemotional Routes to Reconciliation. In : Salomon / Nevo 2002, 127–142.
62. Naipaul, V. S. (1990). India, A land of Million Mutinies Now, London, Heineman.
63. Narayan, S. (ed). (1992). Jharkhand Movement : Origin and Evolution, New Delhi, Inter-India.

64. Natarajan, V. (1985). Setting of Question Papers. A seminar paper published by N. C. E. R. T., New Delhi.

65. Nath, Prem (1995). "The Bases of Education", S. Chand and Company Ltd., New Delhi.

66. Nevo, Baruch and Iris Brem (2002). Peace Education Programs and the Evaluation for Shapiro, Svi (2002) : Toward a Critical Pedagogy of Peace Education. In : Salomon / Nevo 2002, 63 – 72.

67. Ngwata, W. (2001). 'Education in Emergencies. Why prioritise education during emergencies ?', SADC Education Forum, Livingstone, Zambia, 13th November 2001.

68. Nisbet, Stanley (1968). "Purpose in the Curriculum", University of London Press, St. Paul's House, London – EC.

69. Overseas Development Administration (1996). Education for Reconstruction

70. Pal, Kiran (1993). Tension Areas in Center-State Relations, New Delhi, Surid Publications. Palmer, Norman, 1961, The Indian Political System, Boston, Hughton Mifflin.

71. Panchamukhi, P. R. (1989) : Medium of Instruction & the Examination Reform of Different Levels, Himalaya Publishing House.

72. Pande, P. (1984). "An Analytical Study and Development of Secondary Schools Curriculum in Maharashtra", Ph. D. Edu., Nag. U.

73. Phadnis, Urmila (1989). Ethnicity and Nation-building in South Asia, New Delhi, Sage; Puri, Balraj, 1981, Jammu and Kashmir : Triumph and Tragedy of Indian Federalism, New Delhi, Sterling.

74. Pigozzi, M (1991). Education in Emergencies and for Reconstruction : A Developmental Approach, UNICEF Working paper series.

75. Post-Conflict Reconstruction, The International Bank for Reconstruction and Development / The World Bank, Washington, D.C.

76. Provos, Malcolm (2004). "The Discrepancy Evaluation Model, p. 118, in Provos "Towards a State System of Evaluation", Journal of Research and Development in Education, Sept. 1971, p. 93, in Ornstein and Hunkins, 4th ed., pp. 340 – 341.

77. Purkait, B. R. (1997). Milestones in Modern Indian Education. New Central Book Agency (P) Ltd. Calcutta.

78. Rasheeduddin, Khan, (1997). Rethinking Indian Federalism, Inter University Center for Humanities and Social Sciences, Simla.

79. Report of Secondary Education Commission (1952).Government of India, Ministry of Education.

80. Report of the Education Commission (1964-66).(1966). Education and National Development, New Delhi, Ministry of Education.

81. Report of the University Education Commission (1948-49). (1949). Government of India, Ministry of Education, New Delhi.

82. Retamal, G. and Aedo-Richmond, R. (eds) (1998). Education as a Humanitarian Response, Cassell, London.

83. Richmond Kenneth W. (1971), "The School Curriculum", Methuen and Company Limited II, New Fetter Lane, London – EC_4.

84. Rose, L. Neagley, N. Dean Evans, "Handbook for Effective Curriculum Development".

85. Ross, Cameron, (2000), 'Federalism and Democratization in Russia', Communist and Post-Communist Studies, Vol. 33. No. 4, pp. 403 – 420.

86. SIDA (2002a). Guidelines for Humanitarian Assistance in the Education Sector. Stockholm. (http ://www.sida.se/content/1/c6/01/81/34/ Guidelines HumEdu02.pdf)

87. Sinclair, Margaret (2001). Education in Emergencies, In : Crisp et. al., 1 – 83.

88. Sinclair, Margaret (2002). Planning Education in and after Emergencies. Paris : UNESCO International Institute for Educational Planning. (www.unesco.org/iiep)

89. Sing, V. S. (1977). "Development of a Curriculum in Science for Secondary School in Maharashtra", Ph. D. Edu., Bombay U.

90. Singh, Gurharpal (1995). The Punjab Crisis Since 1984 : A Reassessment; Ethnic and Racial Studies Vol. 18, no. 3 pp. 476-493. Singh, Khushwant, 1953, The Sikhs, London, Allen Unwin.

91. Singh, Pritam & Misra, R. G.(1985). Research on Examinations-A Retrospective and Prospect A Theme Paper published by N. C. E. R. T., New Delhi

92. Slattery, P. (1995). Curriculum Development in the Post Modern Era. New York : Garland.

93. Solari, Giovanna (2003). Development tools can be used in emergencies. In : Humanitarian Affairs Review, Winter 2003, 28 – 30.

94. Srivastava, H. S. (1972) : Trends in Examination Reform in India, NIE Journal, July Issue N. C. E. R. T., New Delhi.

95. Sukhia S. P., Meherotra P. V. and Meherotra R. N. (1966). "Elements of Educational Research", Allied Publishers, New Delhi.

96. Sukhia S. P., Mehrotra, P. V. & Mehrotra, R. N. (1991). Elements of Educational Research (3rd Revised ed.,7th Reprint).Allied Publishers Ltd, New Delhi.

97. Taba, H. (1962). Curriculum development, theory and practice. New York : Harcourt Brace.

98. Talmage, Harriet (2004). "Evaluating the Curriculum : What, Why and How, "National Association for Secondary School Principals (May, 1985), pp. 1 – 8, in Ornstein, Allan (Boston : Allyn and Bacon, pp. 332 – 334.

99. Tawil, Sobhi (2001). Social Exclusion and violence : Education for social cohesion. 46th session of the international conference on education, background paper. Geneva June 2001.

100. Tawil, Sobhi (ed). (2003).Curriculum Change and Social Cohesion in conflict-affected societies. Colloquium Report, UNESCO-IBE Colloquium, Geneva 3-4 April 2003 (http ://www.ibe.unesco.org/ Regional/social_cohesion/screportfin.htm).

101. The Operational Steps in the Management of Public Examinations in India at the School Stage –A theme paper published by N. C. E. R. T., New Delhi.

102. Torney-Purta, Judith V. et al. (eds) (2001). Citizenship and Education in Twenty-eight Countries. Civic Knowledge and Engagement at Age Fourteen. Delft.

103. Tripathi, R. C. (1975). As University Students view in Gupta, A. K.(Ed.), Examination Reforms, Direction Research & Implication, Sterling Publishers, New Delhi.

104. Triplehorm, Carl (2001). Education : Care and Protection of Children in Emergencies : A Field Guide. Westport, CT : Save the Children US.

105. Triplehorn, Carl (2002). Guidance notes for education (www.ineesite.org).

106. Twail, Sobhi and Alexandra Harley (2002). Curriculum Change and Social Cohesion in Conflict-affected Societies. Report of the technical meeting, UNESCO IBE, 29 – 30 August.

107. UNDP (2004). Human Development Report, 2004.

108. UNESCO (1999). Thematic Study on Education in Situations of Emergency and Crisis. Paris : UNESCO.

109. UNESCO (2000). Country Guidelines on the Preparation of National EFA Plans of Action, UNESCO, Paris.

110. UNESCO (2000). Education For All 2000. Assessment, Statistical Document, World Education Forum, UNESCO, Paris

111. UNESCO (2000). The Dakar Framework for Action : Education Forum Proceedings, Dakar, Senegal, April 89.

112. UNESCO (2001). Education for all : initiatives, issues and strategies, Report of the Working Group on Education For All held at UNESCO Headquarters, 22 – 24 November 2000, UNESCO, Paris.

113. UNESCO (2002). Education For All. Is The World on Track ? EFA Global Monitoring Report, UNESCO Publishing, Paris.

114. UNESCO (2003a). UNESCO – Summary Report 2003/2004 : Education for All Global Monitoring. Paris.

115. UNESCO (2003b). EFA Global Monitoring Report 2003/2004 : Gender and education for all : The Leap to Equality. Paris.

116. UNESCO (2004). Education – who are excluded and why ? (http ://portal.unesco.org/education/en/ev.php, viewed on 07.08.2004).

117. UNESCO/INEE-Workshop (2002). Report Education in Emergencies. Paris March 2002.

118. UNHCR (1994). Refugee Children : Guidelines on Protection and Care. Geneva : UNHCR.

119. UNHCR (1995) : Revised (1995) Guidelines for Educational Assistance to Refugees. Geneva : UNHCR (PTSS).

120. Varma, A. V. (1988) 'Congress and the Federal Balance,' in Joshi and Hebsur, ed., Congress in Indian Politics, Riverdale, Maryland, Riverdale Publishing Company, pp. 112 – 118.

121. Verma, P. S. (1987) 'Akali Dal : History, Electoral Performance and Leadership Profile,' in Gopal Singh ed. Punjab Today, New Delhi, Intellectual Publishing House.

122. Volkan. V., D. Julius and J. Montvile. (1990). The Psychodynamics of International Relations. Lexington, Mass : Lexington Books.

123. Walker, Decker, F. (2003). "Curriculum Theories". Lawrence Eribaum Associates, Publishers, New Jersey, London.

124. Walker, Decker, F. (2003). "Fundamental of Curriculum Passion and Professionalism", Lawrence Erlbaum Associates, Publisher, New Jersey, London.
125. Wheeler, D. K. (1999). "Examination as a Process", University of London Press Ltd., St. Paul's House, London EC.
126. World Education Forum (2000). The Dakar Framework for Action, UNESCO, Paris.

Citations from Internet sources

1. Dar Amit and Kin Bing Wu. Secondary Education in Investing in the — India Future, World Bank, Retrieved March 25, 2011, from http ://info.worldbank.org/etools/docs/library/235784/2Amit%20Darsecondary. pdf
2. Examination Reforms, Retrieved April 2, 2011, from http ://www.education.nic.in/cd50years/r/2R/I3/2RI30301.htm
3. http://www.ncert.nic.in/new_ncert/ncert/rightside/links/pdf/focus_group/examination_reforms.pdf
4. Joshi, A. W.(2001). School education and the examination system, COMMENTARY, 340 CURRENT SCIENCE, VOL. 81, NO. 4, 25 AUGUST 2001, Retrived April 10,2011,from http ://www.ias.ac.in/currsci /aug252001/340.pdf
5. POSITION PAPER NATIONAL FOCUS GROUP O N EXAMINATION REFORMS, Retrieved April, 2011, from
6. Secondary Education, Chapter 2.3, Retrieved March 30, 2011, from http ://planningcommission.nic.in/plans/planrel/fiveyr/10th/volume2/v2_ch2_3. pdf
7. Singha, H. S. HISTORY OF EXAMINATION REFORM IN INDIA. National Institute of Education, NCERT, New Delhi., Retrieved March 23, 2011, from http ://www.education.nic.in/cd50years/g/52/76/52760F01.htm

APPENDICES

APPENDIX – I

QUESTIONNAIRE – I (FOR GRAPHICAL ANALYSIS)

	Disagreed	Agreed	No comments
1. The present examination system measures the ability to apply the content knowledge in real situation.			
2. The present examination system measures the ability to percept.			
3. The present examination system measures the ability to think independently.			
4. The present examination system increases the mental ability.			
5. The present examination system measures the development of moral value in students.			
6. The present examination system evaluates the abilities properly.			
7. The present examination system can differentiate the intellectual ability among the students.			
8. The present examination system helps to select the proper carrier.			
9. The present examination system helps to find-out the weakness in the acquired knowledge of the students.			
10. The present examination system gives an idea about the student's present state of education.			
11. The present examination system helps in all round development.			
12. The present examination system helps to develop self-consciousness.			
13. The present examination system is faultless.			

	Disagreed	Agreed	No comments
14. The present examination system helps to reduce 'drop-out'			
15. The present examination system able to eradicate 'exam phobia'.			
16. The present examination system should be improved.			
17. Replacement of the present examination system with the continuous evaluation system is justifiable.			
18. Measures should be taken to reduce the mental pressure of the students in examination system.			
19. In present examination system, the gradation system is justifiable.			
20. Steps should be taken to prevent malpractices.			
21. The present examination system evaluates the co-curricular activities too.			
22. Co-curricular activities help to develop personality of a student.			
23. Co-curricular activities help to develop teaching – learning process more joyful.			
24. Co-curricular activities help to develop social qualities of a student.			
25. Co-curricular activities develop the ability to work co-operatively.			
26. The present examinations increase the interest to learn and know more.			
27. The present examinations intensify the motivation.			
28. The present examinations help to express oneself.			

	Disagreed	Agreed	No comments
29. The present examinations help to fight against superstition.			
30. The present examinations help to develop independent thinking.			
31. Semester system of examination is convenient.			
32. There should be semester examinations in higher education.			
33. Change of teaching techniques help to improve the examination results.			
34. Gradation system is better than marks system of the present examination system.			
35. Co-curricular activities should be evaluated along with academic activities.			
36. Syllabus is not completed in time due to lots of examination.			
37. MCQ type of examinations do not measure the subject depth.			
38. In present examination system, less importance is given to the non-academic activities.			
39. The present examination system does not give emphasis on vocational stream.			
40. Frequent examinations raise the mental pressure.			
41. Corrected answer sheet should be shown to students.			
42. Answer sheets are properly evaluated.			
43. More internal examination should be arranged.			
44. Examinations are only waste of time.			
45. Result of examinations motivates to give more examinations in future.			
46. Instructions of question papers are properly understood.			

	Disagreed	**Agreed**	**No comments**
47. Examination schedules are organized in proper time.			
48. Examination schedules are properly maintained.			
49. Corrected answer sheets are shown o the students in a particular date.			
50. Examination results are published in a fixed date.			

APPENDIX – II

QUESTIONNAIRE – 2 (FOR CHI-SQUARE TEST)

	SA	A	UN	DA	SDA
1. Examination system improves the teaching-learning process					
2. Examination system gives feedback to the teachers for their improvement					
3. Achievement encourages to guess paper, supporting material, notes instead of valuing the subjects					
4. Existing examination system just labels the pass and fail and not to follow the objectives					
5. Examination focuses on academic load instead of giving true knowledge					
6. Achievement promotes for getting more marks avoiding any kinds of objectives reflecting through values					
7. Examination system should be integrated					
8. Secrecy arrangements about papers are ineffective and sometimes not properly valued					
9. Vocational ability is also an important dimension for attaining conceptual ability in an examination system					
10. Examination systems are not related to professional development					
11. Curriculum do not satisfy the whole objectives leading to examination system					

	SA	A	UN	DA	SDA
12. Development of memorization rather than perception is the key factor for attaining success in examination system					
13. Weaknesses of teachers are also measured more effectively by observing their professional attitude in a output based examination system					
14. Examination system mode is more reliable and valid with reference to content and fulfillment of objectives					
15. Education system follows the institutional objectives effectively					
16. Examination system fosters quality of life among the students and teachers					
17. Instructional procedure is given only by lecture method to fulfil the objectives reflected in examination system					
18. Teachers are influenced in traditional system, rather to improve the all round development of learners					
19. Some teachers may not cover the prescribed syllabus and just teach limited parts which are asked in examination					
20. Value based education promotes healthy atmosphere in the examination system					

	SA	A	UN	DA	SDA
21. Only cognitive domain is measured and the rest of personality traits of students are not judged through the academic achievement					
22. Examination system is time consuming mode and from starting to announcement of result it takes much time					
23. Achievement mode is expensive in conducting and marking based on person concerned					
24. Verbal communication and project methods are effective criteria for examination system					
25. Examination system should be given more importance on achieving objectives					
26. Broader area of subject matter can be covered for developing skills in achievement					
27. Examination system should be activity centric					
28. Academic Achievement measures just cognitive domains in higher education					
29. Research system in higher education is rather obtaining degrees than skills in higher education					
30. Only semesterisation cannot improve the system					
31. Curriculum is note based rather than creative approach is being nurtured					
32. Class hours are not well organized in a semester system					

	SA	A	UN	DA	SDA
33. Examination system should based on continuity in higher education					
34. Examination system is teacher centric and not democratic					
35. Examination measures the cognitive, affective and psychomotor domains of the students					
36. No systemic credit hours are followed					
37. Examination gives feedback to the students for their promotion					
38. Examination helps for attaining skills in a particular subject area					
39. Examination system is not always objective based					
40. Examination system is summative based					
41. Examination system promotes the unfair means for becoming successful					
42. Examination discourages the studious students					
43. Effective Examination System is the way for attaining goals of education					
44. Objectives and examination systems are highly related					

APPENDIX – III
GRAPHICAL REPRESENTATION
OF DIFFERENT DIMENSIONS

1. Curriculum objectives

2. School's internal examinations

3. Feedback and impact

4. Improvement of examination

5. Evaluation of co-curricular activities

6. Assessment of pupil's attitude

7. Government policy

8. Problems regarding examinations

9. Evaluation results

10. Administration of examination