1.1. INTRODUCTION

Lord Macaulay's famous minutes of 1835 went a long way to lay a very strong and stable foundation of public education in India. It is strongly felt that, along with the public education the evils and abuses and misuses of Examination System also crept in and have come to stay in India. Many Education Commissions and Committees which were appointed in both pre-independent and post-independent era were aware of most of these evils of Examination System and they emphasized the most pressing and vital need for Examination Reform. But the most unfortunate fact was that these Commissions and Committees, although were able to list out the defects and demerits of the system of Examination in vogue, were unable to offer a better alternative, as the evils of the system are deep-rooted and were characterized as 'unavoidable evil'.

The University Education Commission (1948-49), the first ever Commission to be appointed on the dawn of Independence, highlighted the worst features of Indian education due to bad system of Examination and recommended that if at all any reform in Examination system was badly needed, it was urgently necessary for the Secondary Education and Examination System.
The Secondary Education Commission (1953) expressed with a sense of deep grief that all circumstances conspire today to put an undue and unnatural emphasis on Examination, specially the External Examination and they have come to exercise a restricting influence over the entire field of Indian education to such an extent as almost to nullify its real purpose.

The Education Commission (1964-66) also decries the evils of the Examination system, which are well-known to everybody, and the baneful effects of the system on education in general, and secondary education in particular.

In the present educational system, the future of the students is totally decided by one external Examination at the end of the year. As a result, this has given rise to evils such as ignoring class work, neglecting independent study most of the academic year and cramming desperately without understanding at the time of final examination on the part of the students.

The most compelling reason for Examination Reform comes from academic considerations. Examination system is one of the areas in education about which the problem is well-known, its significance clearly realized, the broad lines of the solution are known and some practical reforms were suggested.

But the real need of the hour is to implement effectively these reforms in the present Examination System.

1.2. THE DEVELOPMENT OF EXAMINATION SYSTEM: HISTORICAL PERSPECTIVE:

1.2.1. THE ETYMOLOGY OF THE TERM "EXAMINATION"

The term 'Examination' has been derived from the Latin word 'Examen' which means 'the tongue of the scale'. This word has been, to a great extent, aptly and correctly used. In fact, it is a means through which the intellectual development of a child is measured. It serves as a yardstick to measure how well the goals of learning have been realized.

1.2.2. THE ORIGIN OF ORAL TESTS:

The first evidence of oral examination is found in the ancient Hebrew literature. The story is told in the Old Testament of the test Gileadites gave to the enemy Ephraimites who wished to cross Jordan. While Ephraimites could not pronounce the word 'Shibboleth' correctly, the people of the friendly tribes could respond with the correct pronunciation. Forty thousand Ephraimites were killed on that day because they failed to pass this objective test.

1.2.3. THE ORIGIN OF WRITTEN TEST:

Formal examinations involving written answers to a series of prepared questions, were held for the first time

in the world, by the Chinese in the Second Century B.C., to select recruits for civil service. Candidates were required to pass written examinations in literature and history and also to demonstrate their proficiency in writing poetry, in music and in archery. Those who were successful had to take the examinations afresh every nine years to retain their posts. It was expected even the highest official, the Prime Minister, to prove that he was entitled to his superior rank by competing regularly and winning highest place.

1.2.4. GREAT GREEK TEACHERS AND TESTING:

One of the greatest teachers of all times and most renowned Greek Philosopher Socrates is remembered even today and for all ages to come for his profound method of instruction namely, questioning. His unique and worthy disciple Plato in dividing the society into three classes namely, workers, protectors and rulers emphasized the important psychological factor namely individual differences and suggested suitable tests for them.

1.2.5. IMPACT OF EAST ON WEST:

The influence of Chinese system of examination was so powerful that it made its very strong influence over the system of education and Examination of the West.
By the beginning of nineteenth century, the essay type of tests, in the traditional form was well established and became the order of the day in the Western higher educational institutions and Universities for the purpose of promotion to higher classes and for the award of degrees and diplomas respectively.

1.2.6. DEVELOPMENT OF EXAMINATION SYSTEM IN EUROPE: MEDIEVAL AND MODERN:

In mediavel times, oral examinations were used in universities in Europe. However, in England, the written examination for educational purposes probably made its first appearance in 1902, and the Leaving Certificate Examination in Scotland in 1888.

The final step in establishing State authority over schools was first taken in Prussia in 1787. The law established a central agency of education and instituted the "Leaving Examination" which all graduates of the Secondary school were required to pass for admittance to the University. In France, by 1833, rigid class lines, graded curricula and annual promotions were rather clearly stabilized.
1.3.0. **THE GROWTH OF THE EXAMINATION SYSTEM IN INDIA:**

With the founding of the three Universities at Bombay, Calcutta and Madras in 1857, entrance examinations began to grow in India as an instrument of the University as well as of the state. These examinations became the 'watch-dog', qualifying students for higher education and for public service.

1.3.1 **EDUCATION COMMISSIONS: PRE-INDEPENDENT ERA:**

A number of Commissions like the Indian Education Commission of 1882, the Indian Universities Commission of 1902, the Government of India Resolution on Educational policy of 1913, the Calcutta University Commission of 1917-19, the Hartog Committee of 1927, and the Report of the Central Advisory Board of 1944 have pointed out the abuses which are inherent in the examination system and suggested useful measures of reform. All these Education Commissions of pre-independent British rule unanimously pointed out the dominating role of essay type tests in the examination system and also listed the dangers as well as shortcomings they produced as a consequence.

The Indian Education Commission of 1882 recommended a grant-in-aid system which led to a very rapid expansion of secondary education, but it continued to be dominated by the matriculation examination.
The Indian Universities Commission of 1902 pointed out that 'the greatest evil from which the system of University education suffers in India is that teaching is subordinated to examination and not examination to teaching'.

The Government of India Resolution on Educational policy of 1913 recommended a combination of external and internal assessment and considered this reform of paramount importance.

It is observed by the Calcutta University Commission of 1917-19, popularly known as the Sadlar Committee that the mechanical system of marking devised to secure uniformity of treatment encourages pure memorization at the expense of intelligence and tends to the deterioration of mental efficiency throughout the school and the university.

The Hartog Committee of 1927 found that the whole of the Secondary course was dominated by the matriculation examination and that the percentage of failures at the matriculation examination was very large at several cases.

The Report of the Central Advisory Board, popularly known as the Sargent Plan of 1944 also observed and
condemned the undue domination of secondary school curriculum by the examinations.

1.3.2. EDUCATION COMMISSIONS: POST - INDEPENDENT ERA:

The Indian University Education Commission of 1949 with regard to examination system was of the opinion that we are convinced that if we are to suggest one reform in University education, it should be that of the examination. If examinations are necessary, a thorough reform of these is still more necessary. We suggest the introduction of such valid, reliable adequate objective examinations in the Universities of India at the earliest possible time. Without this, there is danger that Indian higher education will fall into chaos.

As a result of this observation and the recommendation of the Commission and the subsequent Secondary Education Commission, a considerable work has been taken up by different agencies to develop and to standardize objective type questions in about all disciplines in arts and science subjects at school education level.

The Commission also points out the wealth of scientific work on testing, measurement, evaluation and appraisal done in the West, and especially in the United States, which could help the country very greatly in devising objective methods of testing intelligence, aptitude achievements as well as personality traits.

The Commission moreover felt that tests and examinations should be defined chiefly with educational ends in view. They should help in the choice of students, in the counselling and guidance of students, in measuring their progress, in diagnosing present conditions and in devising remedial measures and finally in assessing educational achievement. There are a number of such tests available and their introduction in India, with necessary modification and adaptation, would prove a great boon to Indian education.

The following are some of the outstanding recommendations of the Commission with special reference to Examination reform.

1. A thorough study of the scientific methods of educational testing and appraising be undertaken by the Ministry of Education, and at the Universities with a view to applying the results of this study in Indian Educational practice.

2. The Ministry of Education should have one or two experts who are skilled in preparation and use of objective tests.

3. Each University should have a permanent full-time Board of Examiners........and at least should be a
highly expert person in the field of testing and statistics.

4. A battery of psychological and achievement tests be developed for higher secondary school students for the final test at the end of twelve years of schooling.

5. A set of objective progress tests for guidance and for evaluating class-room progress should also be developed with immediate effect.

The Secondary Education Commission of 1953 while discussing about Examination System and evaluation procedure has rightly and justly brought to light,

Unfortunately our present system of education still lays exclusive emphasis on the intellectual attainment of pupils and this has been mainly due to the influence of our Examination system. The examinations determine not only the contents of education, but also the methods of teaching, in fact, the entire approach to education. They have so pervaded the entire atmosphere of school life that they have become the main motivating force of all effort on the part of pupil as well as teachers.

Pupils assess education in terms of success in examination. Teachers, recognizing the importance of the external examination to the individual pupil, are constrained to relate their teaching to an examination which can test only a narrow field of the pupil's interest and capacities and so inevitably neglect the qualities which are more important though less tangible.

The Secondary Education Commission, thus, brought out in clear terms the weaknesses inherent in the present Examination system.

The Report of an International Team (1954) on "Teachers and Curriculum in Secondary Schools" raised its voice against private tuitions and recommended for their complete abolition. The team also recommended the creation of an All India Educational Research Centre for preparation of objective type tests.

Another significant event in the history of Examination Reform in India was the establishment of the All India Council for Secondary Education (A.I.C.S.E.) in 1955, later transformed into National Council for Educational Research and Training (N.C.E.R.T.)

The University Grants Commission (U.G.C.) appointed an expert committee in September, 1957 under the chairmanship of Sri. S.R. Dougerkary, to examine the problems connected with Examination Reform in Indian Universities. The Committee recommended, among other things, continuous assessment of student performance and setting up of Question Banks in all Educational Institutions of higher learning.
The Indian Examination Reform Project, U.S.I.S. (1958-59) laid down the following fundamental principles, for making Examination System more effective and meaningful.

1. Examinations should motivate students towards the most valid diagnosis of learning.
2. They should essentially guide the students and their teachers in their learning process, and
3. They should uphold academic standards.

The All-India Council of Secondary Education at its meeting in August, 1959 expressed a deep concern over the persistent wastage of over fifty percent of national effort in the way of failure of students at the S.S.L.C. Public Examination and it felt that the major causes for such a situation were the defective syllabi, antiquated method of examination and wide variation in educational abilities of students.

The most important recommendations of the Council were:

1. Establishment of a balanced syllabus or curriculum.
2. Close coordination in educational objectives,
teaching techniques, examination procedures, and less testing factual memory.

3. Introduction of new types of questions and evaluation process.


These recommendations with regard to the reform of the examinations at the Secondary School stage were introduced gradually all over the country.

Moreover, the report of the Education Commission of 1964-66 has stated, regarding the introduction of Higher Secondary School stage,

We have recommended that the pre-university classes now located in affiliated colleges should be transferred to schools as higher secondary classes in a phased programme spread over ten years, and that the duration of the higher secondary course should be extended to two years everywhere by 1986. When the classes are located exclusively in the schools, the Board of Education will conduct the external examination at the end of class XI (or class XII) as well as at the end of class X.


Consequent to the recommendations of the Education Commission, Pre-University course was abolished and the Higher Secondary Course was introduced in Tamil Nadu with effect from June, 1978.

Challenge of Education—a policy perspective of the Government of India also emphasises that another area which requires attention is the system of examinations conducted by the various Boards of Secondary Education. These boards are perpetually the subject of acrimonious controversy for leakage of papers, mass-copying, tampering with results and other unethical practices.7

The evils and shortcomings prevalent in the system of examinations conducted at various levels were exposed by the above policy perspective.

1.3.3. TAXONOMY OF EDUCATIONAL OBJECTIVES: COGNITIVE DOMAIN.

B. S. Bloom, the pioneer in the field of Taxonomy of Educational Objectives, suggested the following steps in the Cognitive Domain.8


1. **KNOWLEDGE:**

Knowledge, as defined here, involves the recall of specific and universals, the recall of methods and processes, or the recall of a pattern, structure or setting. Knowledge of specifics is mainly concerned with knowledge of terminology, and knowledge of specific facts. Knowledge of the ways and means of dealing with specifics is associated with the knowledge of conventions, knowledge of trends and sequences, knowledge of classifications and categories, knowledge of criteria, and knowledge of methodology. Knowledge of the universals and abstractions in a field is associated with knowledge of principles and generalizations and knowledge of theories and structures.

2. **COMPREHENSION:**

This represents the lowest level of understanding. It refers to a type of understanding or apprehensions such that the individual knows what is being communicated and can make use of the material or idea being communicated without necessarily relating it to other material or seeing its fullest implications. Comprehension or the level of understanding is achieved through translation, interpretation and extrapolation.
3. **APPLICATION:**

   This is the use of abstractions in particular and concrete situations. The abstractions may be in the form of general ideas, rules or procedures, or generalized methods. The abstraction may also be technical principles, ideas, and theories which must be remembered and applied.

4. **ANALYSIS:**

   The breakdown of a communication into its constituent elements or parts such that the relative hierarchy of ideas is made clear and/or the relations between ideas expressed are made explicit. Such analyses are intended to clarify the communications, to indicate how the communication is organized and the way in which it manages to convey its effects, as well as its basis and arrangement. Analysis is done through analysis of elements, analysis of relationships and analysis of organized principles.

5. **SYNTHESIS:**

   The putting together of elements and parts so as to form a whole can be defined as synthesis. This involves the process of working with pieces, parts,
elements, etc., and arranging and combining them in such a way as to constitute a pattern or structure which were clear earlier.

6. **EVALUATION:**

Evaluation is defined as judgements about the value of material and methods for given purposes. Quantitative and qualitative judgements about the extent to which methods and materials satisfy criteria.

1.4.0. **MAJOR DIMENSIONS OF THE STUDY:**

The present study is chiefly concerned with two major reforms of Examination System, namely Internal Assessment and Question Banking. The following paragraphs highlight a detailed discussion of the Dimensions taken up for study.

1.4.1. **NEED FOR STUDY:**

Examination Reform is comparatively new era of research in India. The present investigation in the first of its kind in Tamil Nadu. The CASE, M.S. University of Baroda has taken the lead in this field of research in this country. The Examination Reform is a felt-need at the Higher
Secondary School stage. Some of the reasons for the need for this study are given below.

1. The Higher Secondary School stage is the connecting link between Secondary and Higher education. As such, if this Examination Reform with the two major dimensions of Internal Assessment and Question Bank are introduced at the Higher Secondary School stage, the transition from Higher Secondary School stage to the University stage will be bridged in a natural and normal way.

2. Students in the Higher Secondary School stage belong to the adolescent stage, especially to the later adolescent stage. Any reform in education will be more effective and fruitful at this stage alone, i.e., the formative stage to develop regular study habits, systematic evaluation, feed-back, etc.

3. The 1000-Mark Scheme introduced by the SCERT, Tamil Nadu during the year 1972-73 proved to be a failure due to certain internal defects. At present, Internal assessment scheme is present in limited sense in the science subjects only. This has proved to be a success. So it is felt that Internal Assessment scheme may be extended
to Humanities with the hope of obtaining success, as students at the Higher Secondary School stage are not totally unaware of the Internal Assessment scheme.

4. At the University stage, Examination Reform with the three major dimensions namely Question Bank, Internal Assessment and Semester System was implemented in twelve universities, of which Madras University was one. But within a short span of five years, all the major dimensions of the Examination Reform were given up and proved to be futile exercise on the part of the U.G.C.

5. If Examination Reform is to be more effective and fruitful, Internal Assessment scheme and Question Bank must go hand in hand.

6. Social evils like malpractices, mass copying, assaulting the invigilators during examinations, etc., can be minimised only if a reformation takes place in Examination and Evaluation Programme.

Introducing the two major dimensions of Examination Reform will make evaluation more meaningful, more systematic, more significant and more purposeful for the teachers, students and society.

In view of the above mentioned factors like individual,
in institutional, psychological and social factors, the study was undertaken with the firm hope that if the two major dimensions of the Examination Reform are introduced at the Higher Secondary School stage, it will be successful at the higher stage as students and teachers will get used to this system of examination and evaluation.

1.4.2. INTERNAL ASSESSMENT:

In recent years, the word 'assessment' has come to replace 'test' or 'examination'. By 'internal' is meant that teachers are responsible, either on their own or in conjunction with other teachers, for the continuous sessional assessment of their own students. By 'external' is meant that the assessment is conducted on behalf of an examining body by an agent, almost certainly a teacher, but one who is external to the particular school involved and its pupils.  

It would seem reasonable to regard continuous assessment in the context of school examinations as a continuous updating of teachers' judgements about their own pupils. Continuous Internal Assessment refers to continuous evaluation of the development and knowledge of the students by the teacher. It is a process that extends over a period

of time and that provides a gradual build-up of cumulative judgement about the performance of students.

The need for continuous Internal Assessment is established by a close look at the learning outcomes, most of which are not capable of being measured by the end of course examination. Some of the possible outcomes of learning are:


It may be seen that all learning outcomes other than the first six can be assessed only by continuous Internal Assessment. In other words, continuous Internal Assessment can assess all the learning outcomes, whereas, end of course examination may test only a limited number of outcomes. 10

Internal Assessment is based on a number of principles which differentiate it from external assessment.

1. Evaluation is done by involved persons, namely, the teachers who actually teach the subjects.
2. Assessment of a wide range of objectives is possible.
3. It is a teaching and testing device.
4. It indicates the effectiveness of the method of instructions.
5. It provides for individual differences.
6. Assessment is done periodically and regularly.
7. A large number of tools and techniques is used.

The success of continuous Internal Assessment Programme largely depends upon factors such as the plan drawn at the beginning of each term, the way in which the plan is implemented, and teachers and students who are involved in the teaching-learning process respectively.

Planning is the first stage that demands considerable attention for any scheme to be implemented successfully. The Plan for Internal Assessment must be made known to the students at the beginning of each term. For a well planned Internal Assessment Scheme and for the successful
implementation, sufficient attention should be given to the following:

a) strategy to be adopted in such a way as to convince the students about the vital importance of Internal Assessment and in enlisting their cooperation in its effective implementation.

b) distribution of tests, assignments, etc.

c) mode of reporting the results.

d) procedure adopted in arriving at the final marks.

e) mode of recording the results.

f) flexibility of the scheme, and

g) provision for the students to get their grievances redressed.

1.4.3. QUESTION BANK:

The purpose of the school examination is to test the achievement of a student in a subject. Ordinarily, the examining bodies prescribe a syllabus only for a subject and make it available to the students, along with certain text books. This is certainly inadequate.

According to the U.G.C. Action Programme,

A student who is being examined must know how he is going to be examined. This is best indicated by a large number of questions on different portions of the prescribed syllabus. All such questions put together really constitute a Question Bank.  

A Question Bank is nothing but a collection of questions put together, covering different aspects and portions of the syllabus prescribed by the examining body.

In the words of Raghavendra Bhat,

A Question Bank is a pool of questions or items which are suitable for administration to a particular population of students and which have all the well-established technical values.

The Concept of Questions Bank has been evolved with the definite purpose to eliminate some of the glaring defects which are involved inherently in the setting up of question papers, such as

1. Most of the questions are vague, ambiguous and poorly worded.
2. They fail to reflect the objectives and contents of the syllabus.
3. Testing and evaluation remain divorced from one another without any interaction between the two.


4. The question paper causes a variety of surprise to a student.
5. Time given for setting up of question paper is not always sufficient.
6. Some of the questions are unduly lengthy and insolvable.
7. The high degree of secrecy maintained in the process of setting up of question papers is undesirable.
8. The majority of teachers do not enter the scheme of examination at any stage in anyway. This lack of participation of all the teachers in the process of examining causes frustration among teachers.
9. Many teachers lose their sense of responsibility as they are not involved in the process.

The setting up of a question paper is both a scientific and stupendous task and hence the paper-setter must have in mind the undermentioned factors while setting up the question paper.

1. Preparing a question paper is an art, and as such it requires a good deal of time, thinking and vision on the part of a paper-setter. It cannot be done overnight.
2. It must be a well-thought out process and it should not be a hasty end-product of work without vision.

3. The question paper must be properly scrutinized in the light of accepted criteria.

4. There should be copious substantial questions which ensure the testing of the skills and abilities.

5. The model marking scheme should be prepared along with the question papers and must be made available to the examiners.

It is obvious that every teacher is supposed to prepare a large number of quality questions on different topics of the prescribed syllabus for various purposes. Because of lack of adequate technical know-how and the limited time at his disposal, an ordinary teacher is not in a position to develop a question pool of reasonable magnitude and quality. This is true of paper-setters who are required to frame question papers within a limited specified time. Pritam Singh adds further,

In the absence of a stock of ready-made questions, the quality of question papers is liable to suffer. Moreover, every teacher is not capable of preparing quality questions in all the subject areas he is entrusted with. 14.

Under these conditions, it is necessary that a ready-made stock of questions is built up and made available to teachers and testers.

A mere collection of large number of questions will not constitute a question pool of quality unless all such items fit into a predetermined structures of a question pool. Preparation of a blue-print of specifications is necessary. Unless the items are relevant to the objectives of the programme for which the question pool is developed, it will result in hodgepodge of questions of very limited utility. The blueprint for developing Question Bank in biology for Std VI prepared by the N.C.E.R.T., New Delhi is given in the table 1.1.
<table>
<thead>
<tr>
<th>Objectives</th>
<th>Knowledge</th>
<th>Comprehension</th>
<th>Application</th>
<th>Skill</th>
<th>Total no. of items</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Contents</strong></td>
<td>Recall</td>
<td>Recognize</td>
<td>Interrelate</td>
<td>Analyze</td>
<td>Hypothesize</td>
</tr>
<tr>
<td>1. Importance of plants in nature.</td>
<td>K₁</td>
<td>K₂</td>
<td>C₁</td>
<td>A₁</td>
<td>Hypotheses</td>
</tr>
<tr>
<td>2. Cell Cellular structure in plants.</td>
<td>C₂</td>
<td>C₃</td>
<td>C₄</td>
<td>A₂</td>
<td>Device new</td>
</tr>
<tr>
<td>3. The seed and its germination.</td>
<td>C₅</td>
<td>C₆</td>
<td>C₇</td>
<td>A₃</td>
<td>experiments</td>
</tr>
<tr>
<td>4. Roots: Absorption of nutrients from soil.</td>
<td>C₈</td>
<td>C₉</td>
<td>C</td>
<td>A₄</td>
<td>Relationship</td>
</tr>
<tr>
<td>5. Stem: Transport of substances in plants.</td>
<td>A₅</td>
<td>A₆</td>
<td></td>
<td>A₇</td>
<td>Infer</td>
</tr>
<tr>
<td>7. Flower: Reproduction in plants.</td>
<td>A₁₁</td>
<td>A₁₂</td>
<td></td>
<td>S₁</td>
<td>Predict</td>
</tr>
<tr>
<td></td>
<td>A₁₇</td>
<td>A₁₈</td>
<td></td>
<td>S₄</td>
<td>Manipulate.</td>
</tr>
</tbody>
</table>
In accordance with the blue-print, questions are written or collected from various sources. Ready-made questions may be lifted from old question papers set in for various examinations; from standardized tests and from the review exercises of good text-books. Such questions must fit into the specifications of the blue-print, besides their relevance to the table of specifications. In the case of new questions, they may be invited from experienced teachers, examiners and paper-setters. Such questions should be accompanied by a key and outline answers besides indicating the objective and the content area.

Apart from this, it is better to get the questions prepared by practising teachers, invited to a workshop for the purpose. The advantage of such a get-together of experienced teachers is that questions are discussed face to face and quality questions are obtained. A question sheet may be used for writing a question-item.

After the questions are written, the question sheets are passed on to the other members of the group for their comments. The comments are placed before the author of the item, who in consultation with two or three participants finalises the item. Second level screening
may be done with the help of a group of three subject experts, all well-conversant with the technique of test construction. Such a group may consist of a subject specialist, a teacher and an evaluation expert.

Finalised questions may now be transferred to cards made of thick chart paper out into 5" x 3" size. Cards with different colours may be used for indicating different objectives. After the cards are prepared, they are to be coded and classified in a manner that facilitates their use. This is necessary for quick location. All question cards prepared are to be arranged in proper order according to the code. Steel Almirah with four of five cabinets may be used to house the questions cards.

When a sufficient number of questions, unit tests and questions papers are ready in the pool, these can be used for various purposes, such as

1. A judicious selection of questions can be made for instructional purpose.

2. In the preparation of textual material, a question pool can be utilized for preparing review exercises in text books.
3. The preparation of teaching units or resource units involve the use of evaluation materials which may be picked up from the Question Bank.

4. For evaluating pupils' progress, the Question Bank can be used most effectively.

5. When Question Banks are established in schools, students can use them for self-evaluation in their spare time. As an outline answer or key is provided in such questions, students can check their response against such keys and answers, especially in case of short answer and objective type questions.

6. Even teachers can make use of such cards for quick revision.

A Question Bank may become a store of outdated material after some years, if not evaluated at regular intervals. At least, once in three years, the question pool must be screened.

The State Council of Educational Research and Training, Madras has question Banks in all subjects for Std. A. These Question Banks are closed ones and are thrown open only to the paper-setters.
Enrichment of questions by updating, replacing, discarding, modifying, adding new questions, regrouping and classification is to be an ongoing process to give the Question Bank a dynamic look.

1.5.0. COMPONENTS:

In order to make an in-depth study of the Examination Reform at the Higher Secondary school stage and for better and deeper understanding of the two major dimensions chosen for the investigation, namely Internal Assessment and Question Bank, the following components have been identified:

1. General--Items which are of general in nature pertaining to Examination Reform.
2. Concept.
3. Practice.
4. Problems.
5. Values.

The above mentioned last four components have been selected as denominators for both Internal Assessment and Question Bank.
1.5.1. **GENERAL-EXAMINATION REFORM:**

Thirty items were selected for this component in the questionnaire. This component which gives an idea about the examination reform in general is discussed under the titles, Traditional Examination, Evils of Traditional Examination, Important Characteristics of a worthwhile Examination and Quality of Question paper.

**TRADITIONAL EXAMINATION:**

The moment one sees the light of the world, one is beginning to learn, and one's learning ends only in the grave. This being the case, we set up certain compartments, certain limitations, certain outlines in order to measure height of one's achievements, the depth of one's thinking and understanding or the soundness of one's knowledge in a given situation. This is what we term as 'examination'.

The idea of abolishing the examinations was mooted in the early twenties of this century. In the U.S.A., in Cincinnati, examinations for promotions had been abolished in 1886 and replaced by the teachers' estimates.
In a symposium on the values of Examinations conducted by the Journal of Examination in 1929, the opinion was expressed by a large number of the leading superintendents of education in the U.S.A. that examination as a test for passing a course, for promotion, or for the award of certificates and diplomas should be discarded. In recent times, examinations have been bitterly criticized because of the stress on uniformity and a system of straight jacket. Those who control the examinations dictate the work of the institutions preparing for it. A common syllabus is imposed on the schools by an external examination. Our traditional examination system is highly centralized involving a lot of administrative work for the examining bodies. The schools are forced to follow a long list of unimaginative rules and regulations in conducting the examinations, leaving no scope for experimentation in examinations.

The schools' freedom, the teachers' zeal, the headmasters' initiative and the pupils' love for learning are sacrificed at the alter of the examination.15

Much has been done in this direction to set free the education system from the shackles of the dominance of examination.

The present examination system measures scholastic achievement alone. It is felt by many that the student's real needs are completely ignored, and his individuality is not properly developed. Further, the examinations do not test most of what schooling has done with regard to the development of sociability or ability to play a creative role in the welfare and progress of the society. It throws a tremendous burden on the student's memory power rather than to serve as an instrument to test his ability to think and act.

The scope for mastering the subjects of study is very meagre in the present day system of education with its examination procedure. Most of the students fail to evince keen interest and put forth sincere efforts to study hard and master the contents of the subjects, since they are simply contented with obtaining the mere pass mark. So they burn the midnight oil at the eleventh hour and pass the examination.

India's examination-ridden educational system is worse than her community-ridden, social and political system. The prestige of a school depends entirely upon the percentage of the results it produces in the
examination and very little on educational merits of the institution. The capacity of a teacher is judged from the percentage of passes in the subject he handles. The face of a student depends not on his mental calibre, but on his performance at the examination. The achievement of a student is almost solely judged in terms of a single performance at the final examination.

Very often, the examinations cover 80 per cent of the syllabus alone. In our traditional examinations, the usual practice is to give 10 essay questions in a paper and ask the students to answer any 5 out of these. Immediately the validity is reduced to 40 per cent. If we set pass mark in this paper as 35 out of 100, it really means that a person who has mastered just $0.35 \times 40 = 14\%$ of the syllabus, is declared passed.\textsuperscript{16} Thus, traditional examinations are loaded with essay questions which thereby reduce the validity of the paper. When students are given option of choice in essay questions or any other questions, they do not attempt the difficult questions. Such students carefully study one half to three-fourths of the subjects.\textsuperscript{17}

EVILS OF TRADITIONAL EXAMINATION:

It seems clear that setting a question paper is not a time-consuming job for most of the teachers. They consider setting up of a question paper as the work of an evening. While an examiner in the West devotes three to six months for the careful preparation of a comprehensive question paper, teachers in India hold the opinion that setting a question paper is not a time-consuming job. Another woe of the examiner is that an examiner has to value a large number of answer scripts within a much limited time allotted to him. This reduces the reliability of evaluation.

In the memorable words of William Glasser,

I have not met a child incapable of thinking and participating to some degree in school if we let him know we value what he cannot contribute. No student ever at any time be labelled a failure or led to believe he is a failure through the use of the grading system. Labelling students as failures does untold harm to them. A student who believes that he is a failure usually refuses to work in the school. If we label him a failure even once, there is less chance that he will ever start to learn.13

Thus the fact that the concept of failure is an archaic as well as an unpsychological and anti-educational concept, has been powerfully brought out.

The problem of cheating is yet another evil that haunts the schools. Cheating is defined by R.L. Ebel as "any activity of a student or group of students whose purpose is to give any of them higher grades than they would be likely to receive on the basis of their own achievement".\[19\] Thus the traditional education system is one of the major contributory factors for lowering down the morale of the student community. Thus, the term covers a wide variety of activities such as:

1. the sidelong glance at a fellow student's answer.
2. the preparation and use of crib sheet.
3. collusion between two or more students to exchange information or answers during a test.
4. unauthorised copying of questions or stealing of text booklets in anticipation that they may be used again later on.
5. arranging for a substitute to take an examination.
6. stealing or buying copies of question papers of examination before they are given or sharing such illicit advance copies with others.

There is so much of ambiguity in the wording of questions that often they mean one thing to the examiner.

---

and altogether a different thing to each of the students taking the examination. Thus, a defective question paper is one of the causes for the failure of students.

**Important Characteristics of a worthwhile Examination:**

The objective test is so called because the scoring procedure is pre-determined when the test item is written. The word 'objective' is in reference only to the rule for scoring. Since item writing is a skilled and most difficult job, teachers need regular orientation course and in-service training. Rather than an individual, it is better a group of teachers set-up question paper.

Item-writing is more difficult than that of preparing essay-type question.

"The old type traditional examination is requiring relatively long explanatory written answers to a small number of 'how' type questions, whereas the new type examination requires exceedingly short answers to a relatively large number of 'key' questions, correct answers and being symptomatic of total organized knowledge".

Thus it is evident that as early as 1925 educationists had started realising the shortcomings of essay-type

---

questions and the need and necessity for introducing new type short answer questions. For better evaluation of tests, a model marking scheme should always accompany the question paper.

In recent years, increasing attention has been given to the notion of 'self-evaluation' the pupils themselves carrying out all steps in evaluation. More responsibility for identifying and selecting the problems that students will work on, should be given to the pupils themselves. The reasons for proposing self-evaluation are stated as follows:

1. It fits with the idea of making learning more significant by giving greater responsibility to learner. Motivation will be stronger and more genuine when students work on problems which they have identified and selected as significant to themselves. Their 'ego-involvement' in the learning process and the transfer of what they learn in school to out-of-school life will be greater when they have acquired skill in identifying and solving their own problems.

2. The idea of self-evaluation stems from the concern of educators with the democratic processes.
Is self-evaluation desirable? The answer is affirmative but qualified. The under-mentioned precautions must be taken to make self-evaluation a great success.

1. Self-evaluation by pupils must be viewed seriously by teachers if it is to have optimum effect on learning.

2. Self-evaluation should be as valid as possible. The teacher will need to guide and train students to make valid self-evaluation.

A good question paper must have different types of questions such as essay type (if it is inevitably necessary), short answer questions and different kinds of objective type questions.

One question which has often engaged the attention of teachers is whether optional questions should be allowed in examinations or not. Taylor (1962) holds the view that optional questions should not be allowed in question papers. Likewise, Dangel (1964) advocates abolition of optional questions on the following grounds: 22

a. that the candidate who is expected to answer questions is also required to select them in hurry.

b. that the process of selection results in a loss of time.
c. that under the strain of examination, a student may not make wise selection and thus lowers down his marks.
d. that the theory of optional questions indicates failure of educationalists to agree on what is indispensible to students.
e. that optional question encourages the practice of not covering the whole syllabus.
f. that optional questions do not allow a common standard for comparing students' achievements.
g. that it sometimes results in student misreading instructions and answering more questions or parts thereof than required.

When choice is allowed, a student's mark depends more upon his selection of questions than upon his knowledge of subject matter.

Quality of Question Paper:

G.B. Shah, outlines the criteria to make a question paper more valid and reliable. A more reliable question paper has:

23, G.B. Shah, *How to set better Question Papers - Organising better School Examination*, (Baroda: M.S. University of Baroda, 1964)
1. adequate coverage of courses
2. due weightage to subject matter areas
3. justification of instructional objectives
4. objectivity in assessment
5. better essay type questions (if they are necessary) wherein the subjective element can be minimised
6. Liberal time limit
7. minimum number of options (if they are inevitable)
8. simple and understandable language, and
9. reliability, spacing and proper lay-out.

The validity of a question paper is always directly proportional to the number of questions in a paper. The content validity of a well-structured question paper is usually around 80 per cent alone. Moreover, because of limited number of questions in the traditional-type question paper, a high chance factor enters in the evaluation of achievement. Rather than asking the students to answer any five questions out of ten, if the number of the questions is increased to 60 or 75, the content validity of the paper is considerably increased to 90 to 95 per cent. The validity and reliability of a question paper increases if the number of the questions is more.24

Any good question paper, worth its name, should have provision for understanding and application.

Schools in which the students have no voice in determining on what grounds they are to be evaluated or how the evaluation is to be made, are not furthering the democratic ideals. Students themselves can be involved in scoring of objective tests and short-answer questions so that democratic ideals and norms may be inculcated among them.

A question paper becomes unfair to students if it is not precisely and clearly worded. The language used in the question paper must be simple and straightforward. There should be no room for ambiguity.

Ray (1969) found that some questions have very high frequency of repetition. Teachers are tempted to ask their favourite questions in their papers. B.S. Bloom (1961) pointed out that in India one should be able to predict at least 50 per cent of the questions which might be asked in any given year. This tempts the students what portions to be studied and what to be safely omitted.

Thus, the items covered under the component 'General' pertain to the defects of the traditional examination and the characteristics of a worthwhile examination with better quality of question papers, and the involvement of teachers and students in evaluation procedure.

1.6.0. COMPONENTS OF INTERNAL ASSESSMENT:

For the sake of a detailed discussion and to obtain greater clarity, the dimension 'Internal Assessment' has been classified into four components, namely,

1. Concept of Internal Assessment
2. Practice of Internal Assessment
3. Problems arising out of Internal Assessment; and
4. Values of Internal Assessment.

1.6.1. CONCEPT OF INTERNAL ASSESSMENT:

Continuous Internal Assessment refers to the regular assessment of students' abilities—mental as well as motor. Assessing students' abilities may be done either by teaching the whole course and testing them at the end of the term, commonly referred to Summative Evaluation or at regular intervals to know their progress, known as Formative Evaluation.
The important use of tests is the utilization of results as a basis for evaluating the effectiveness of instruction. Never examine without a clear purpose and a clear idea of how you are achieving that purpose. The only good purpose of examining or testing during a course is to advise, admonish and in extreme case, eject the student. To assess one's mental or motor ability, achievement, etc., a variety of techniques like oral, written and practical tests and assignments, is used in Internal Assessment.

In the present examination system, more essay-type questions are asked. The level of reliability of essay questions is very low because of the subjective element present in it.

"The term objective is commonly applied to a test which contained exercises of such a sort that there is no disagreement among competent sources as to what the correct answers are". Introducing more objective type questions lessens the subjective factor in Internal Assessment.

The major function of a class room test is to measure student achievement and thus to contribute to the evaluation of educational progress and attainments.

"What students know and can do is more important than their score on a test". 29

In order to measure the outcome of effective and continuous learning on the part of the students, it is always desirable to hold unannounced tests as a part of Internal Assessment.

K. Venkatasubramanian, former Director of School Education, Tamil Nadu clearly pointed out to this investigator that only those who teach must test their own students. Only then, it will lead to better standards of testing and learning. On the contrary, the views expressed by C. Carter fails to conform to the opinion expressed by K. Venkatasubramanian.

"Although it is often impracticable, there is something to be said for having a rule that an examination should be set and marked internally by people who had no hand in teaching the course concerned, for the temptation to give too much credit for the possession of a good memory is a frequent one." 30

Thus there are contradictory views with regard to Internal Assessment by the teachers who actually teach the subjects. Hence, there must be provisions for both Internal Assessment and External Examination in order to strengthen the educational evaluation of the pupils.

There is no scope in the present examination system to evaluate properly and systematically curricular activities. There is a wide scope for evaluating the co-curricular activities like drawing, communication skills, social skills, interest, appreciation, creativity etc., offered to the students under Internal Assessment scheme.

Just like any other programme, the successful implementation of the continuous Internal Assessment programme rests on planning. The planning exercise should begin well in advance before an academic year begins. Each department should plan its activities with regard to the type of tools to be used, the periodicity of using them and the schedule of events. The plan for continuous Internal Assessment should be made known to the students on the eve of an academic year so that their co-operation could be enlisted.

For effective implementation, Internal Assessment must be kept open. That is, the functional aspects of Internal Assessment with special reference to the method of scoring of marks must be made known to students. Students must have easy access to the registers of Internal
Assessment. There must be some provision for students who have grievances over the Internal Assessment of their teachers. Students who feel that they have not been awarded the marks they deserve could appeal to the teacher concerned and get their grievances redressed at the class-room level itself. Each Higher Secondary School should have a Final Appellate authority. It is composed of the head of the institution, a senior teacher and a teacher of the concerned subject. Students should be briefed about this flexibility in-built in the system, the procedure for arriving at the final marks and other relevant details.

Keeping the above mentioned plan as basis, at the end of each term or academic year, the department may analyse the achievement and the difficulties faced during the previous term or academic year. This backwash will help in planning the subsequent term or academic year. Thus, in the long run, there will be a perfect relationship between the planning and the execution of the Internal Assessment programme, both for students and teachers.
1.6.2. PRACTICE OF INTERNAL ASSESSMENT:

Continuous Internal Assessment may help a teacher looking for signs of growth in the thinking process and development of his students. In the present Examination system, the greater concern of the teacher is to cover the syllabus, whereas under Internal Assessment scheme, the chances are more for the teacher to establish a very close and healthy rapport with his students and to assess in a very systematic and desirable way, the very many abilities of his students and he is able to give them better guidance in their educational advancement and in their development of their personality.

Entrenched within the education system is the assumption that teachers must periodically and formally report the achievement of individuals within the system. This process of reporting involves a decision on what information is relevant and how to gather it. To achieve this, tests are conducted very frequently under Internal Assessment.

There is better provision under the Internal Assessment scheme for the Content evaluation, Input evaluation, Process evaluation and Product evaluation.
than in the traditional examination system.

"According to CIPP evaluation, evaluation is the process of delineating, obtaining and providing useful information for judging decision alternatives." 31

There is more flexibility in continuous Internal Assessment. Flexibility is taken in the form of considering the best performance of students out of a certain number of tests, assignments, etc., conducted. If a student is absent for a particular test, he is given another test. As a result, unhealthy competition among students is avoided to a great extent in this scheme.

Continuous Internal Assessment refers to continuous evaluation of the development of students. The assessment is done periodically and it helps the students to know their relative line of progress. In the present Examination system, students prepare for the examination in the eleventh hour. This is certainly prevented in continuous Internal Assessment. Since assessment is done periodically and frequently, students are always busily engaged in their studies and this develops a regular study habit among them.

The scope for feedback for students is greater in Internal Assessment. There is ample opportunity for the students to know the errors they commit in the tests and this helps in overcoming them. But in the school final examination, there are less chances for rectifying the mistakes or error which they are not aware of, and are penalised.

As a forerunner of written examinations, oral examinations were first supplemented, and then gradually replaced by written examinations.

The oral examinations, if properly used as part of the planned programme of measurement can be a valuable measuring technique. It permits an extended pupil response characteristic of the essay examination while lacking the essay disadvantage of difficult grading. 32

The advantage of detailed answer of the essay test is met within the oral test and the disadvantage of difficulty in the grading of the essay test is minimized in the oral test.

A series of objections is often raised against oral examinations or the marks given at interviews. But as a matter of fact, oral examinations play a very vital role in the enrichment of intellectual development of students and therefore it is given a very important place in Internal Assessment scheme.

The object of an interviewer should be, not to find out what the candidate does not know, but to see whether anything the candidate is supposed to know is a real part of his mental make-up and whether he has brought his own mind to bear upon the subject in question.

The aim of the oral examinations is to find out whether the student is able to express his views and opinions freely and frankly with clarity.

Some studies have tried to analyse the effect of combining the Internal Assessment with external examination. Taylor (1962) recommended that the two assessments should not be combined before verifying their accuracies. Without this it is probable that the total of the two assessments may be more erroneous than a single assessment. Leele et al (1962) found that combination of Internal Assessment marks with external examination marks does not significantly improve the prediction of further performance of students.

It is relevant here to point out the views expressed by the Education Commission (1964-66) which states that,

The results of Internal Assessment and external examination should not be combined because the purposes and techniques of the two evaluations are different and different institutions are not strictly comparable. The results of the external and Internal Assessment should, therefore, be shown separately in the certificate(s) given at the end of the course.  

At present, the results of Internal Assessment and external examination are combined. Instead, the marks should be shown separately in the mark sheet or certificate given at the end of the course.

1.6.3. PROBLEMS ARISING OUT OF INTERNAL ASSESSMENT:

Long ago, Mathew Arnold remarked about England,

Our middle classes are nearly the worst educated in the world. Say to Government, regard the necessities of a distant future and organize your secondary education. Since Mathew Arnold wrote this, it took 70 years for England to organize her secondary education.  

If India has to reform her secondary education, it must be done at the examination level. It must be admitted that the undue emphasis on examination has made the education a farce. To remedy this evil, Internal Assessment scheme can help us in getting rid of this evil.

Certain criticisms have been levelled against the successful implementation of Internal Assessment.

Reform in any field should cater to the needs of the society and meant for social progress. Our former Prime Minister Shrimati Indira Gandhi rightly pointed out in her speech at the conference of Vice-Chancellors (1975) that,

Education becomes meaningless if it is divorced from the needs of the society or the needs of our country.

For the successful implementation of the Internal Assessment scheme and for its societal acceptance and approval, the society should first be educated about the scheme. The Indian society needs more skilled and semi-skilled citizens. The secondary education should train every young Indian to be a worthy son of his mother-land. This may be possible provided we can give right education to right children on right lines in right schools through right methods of examination in the right way and in the right time.

Critics point out that
a) the society has more faith in essay type than objective examinations.
b) the society has no faith in the marks awarded in Internal Assessment.
c) results are tend to be boosted in Internal Assessment.
d) in our socio-politico set-up, introduction of Internal Assessment may not be a success.

In their eagerness to boost the results, some schools may over-assess the performance of students in their Internal Assessment. The Education Commission is aware of this short-coming and have stated as a warning.

It should be an important aspect in the inspection of schools to review the Internal assessment made and to examine the correlation between the internal and external assessment. Persistence in over-assessment should be regarded as a weakness in the school programmes. The grant-in-aid rules should authorise the Education Department to withdraw recognition for persistent irresponsible assessment. 38

The above warning must be given serious consideration to avoid over-assessment which is a serious limitation.

The followings are some of the misuses of Internal Assessment scheme.

1. In some quarters, Internal Assessment scheme is used as an instrument for boosting results.

2. Various interpretations of Internal Assessment adopted by different Boards without proper preparation results in lowering the overall reliability of the results in public examinations. Some of the Interpretations are as follows.
   a) Internal Assessment means examination marks of periodic and terminal tests in individual subjects.
   b) It means assessment of achievement through tests and home assignments.
   c) It means assessment through tests, homework and on regularity and punctuality.
   d) It means that Internal Assessment in certain subjects and external evaluation in others.
   e) It means total Internal examination in certain areas and external examination in other areas.

3. Internal Assessment is being used as an instrument of controlling students and also as means of extracting under-advantages on both the sides.

4. Introduction of Internal Assessment without adequate preparation creates more problems.

The critics also point out that there is scope for bias and favouritism in Internal Assessment.
Further, it is quite possible that individual teachers may inflate the results of their students and deflate the results of students of other teachers. Sometimes, the teachers may yield to threats, recommendations and pressures from various quarters.

"There is increasing evidence that examinations create anxiety among some students. It may be due to either pre-examination strain or examination panic or true examination phobia." 40

The foregoing statement very beautifully brings out the fact that the traditional examination is unhealthy physically as well as mentally.

Another bitter criticism comes from C. Carter.

According to him,

"It was originally argued that the method of continuous Internal Assessment would cause much less stress, being spread over a long period, and would thus be a fairer indication of 'normal' performance of the student rather than what he could do in a special and arduous situation. In fact, the evidence suggests that being examined

every few weeks often produces more stress than the concentrated final examination, so the argument does not succeed. 41

It is suggested that frequent testing in Internal Assessment causes more stress to students than in the traditional examinations.

The periodic evaluation of students is an essential part of the teachers' work. Tests and examinations are periodically administered in Internal Assessment. This means that the work-load of teachers increases as the number of records to be maintained is more in Internal Assessment.

It is worthwhile to point out here the opinion put forth by B. Hudson.

The problem that faces an examining board when dealing with such school-based examination involving the use of continuous assessment is to decide against what standards the cumulative judgements made by teachers can best be moderated. Whatever the standards being applied and whatever the nature of the skills or the content being continuously assessed, it would appear essential for moderation to involve visits to the place where the work is being undertaken and contact with both the teachers who are undertaking the assessment and the students being assessed. This inevitably means in practical terms, that the number of visits actually made will be far less than the number that is ideally desirable. 42

The potential disadvantage of this situation can only be overcome by keeping detailed and appropriate records and by the most careful planning of the course.

These criticisms are genuine to some extent. But the Internal Assessment scheme cannot be given up totally in these scores. Certain checks and counter-checks can be devised to minimize them, if not to eliminate them.

1.6.4. VALUES OF INTERNAL ASSESSMENT:

The Education Commission (1964-66), while dealing with the Introduction of Internal Assessment scheme at the Secondary schools stage, stresses the values in the following lines.

It is now agreed that evaluation is a continuous process, forms an integral part of the total system of education, and is intimately related to educational objectives. It exercises a great influence on the pupil’s study habit and the teacher’s methods of instruction and thus helps not only to measure educational achievement, but also to improve it. 43

Internal Assessment has potential advantage in that it helps the students to improve their study habit. It also aids the teacher in strengthening his method of instruction.

W. Wick, John and L. Beggs Donald, highlight the values in the following lines.

1. Do pupils learn at different rates during the year? Are there times when the learning curve flattens out—when no gains seem to be made? Once-a-year testing cannot provide information of this type.

2. With information on group performance which spans the entire year, administration will be capable of comparing each year's performance with preceding and subsequent years. Because information will be available for the entire year's work, the administration can compare learning curves.

3. Data gathered continuously can be used to check the impact of certain gross external situation on the learning curves.

A major reason for taking into account the student's performance in the course is the fact that sometimes potentially good students fall down in the final examination. On the other hand, under Internal Assessment scheme, there is absolutely no chance for any bright and brilliant student to score low marks in tests and examinations conducted internally.

The followings are some of the advantages of continuous Internal Assessment as listed out by John Heywood, 1978.

1. Weakness in a student's knowledge can be diagnosed and remedied before the final examination.

2. Regular testing helps eliminate examination nerves.

3. Teaching and learning are less dominated by the examination.

4. It is easier to assess the student in many directions.

5. Less stress is laid on pre-memory.

Since a student's weakness is diagnosed and remedied he now faces the examination boldly. Teaching and learning become more dominant than the examination. There is little stress on pre-memory.

R.G. Misra visualizes the values of Internal Assessment as follows:

1. It can make possible a more reliable and valid assessment of a student's progress.

2. It can also lead to better interaction between the teacher and the taught.

3. The system should contribute towards the transmission of knowledge to the growing learner.

4. It should contribute towards the inculcation of certain values, elevations, interests and personal and social qualities deemed desirable by society for its growth and sustenance.

5. It should also prepare the learner who may be in a position, to contribute effectively in particular to the social, cultural and economic growth of the society to which he belongs and the human society at large.46

Thus, Internal Assessment helps to improve all round development of the student and he is now in a position to contribute to the betterment of the society.

1.7.0. COMPONENTS OF QUESTION BANK:

For the purpose of an in-depth study, the dimension, 'Question Bank' is divided into four components, namely, Concept, Practice, Problems and Values.

1.7.1. CONCEPT OF QUESTION BANK:

Tests are nothing but a bundle of questions used in order to evaluate the outcomes of learning on the part of the students. The role of examination is to determine the extent to which instructions succeeded in achieving the objectives. Good examination is an integral part of good instruction. The concept of Question Bank has been evolved with a view to eliminate some of the glaring defects which are involved inherently in the setting up of question papers in the present system of examination.

The concept of Question Bank is to use the collective wisdom of teachers teaching the subjects in framing questions of improved type which are properly related to the objectives of the course.  

Thus the Question Bank is a pool of items or questions which are suitable for administration to a particular population of students and which are of known technical values.

The main aspect of a Question Bank is to make available to teachers, examining bodies as well as students, questions together with associated information that they might wish to use in preparing their own tests and examinations during or at the end of a course.

A Question Bank should clearly be composed of all kinds of questions, ranging from essay and short answer questions to all kinds of objective types.

It is necessary that Question Bank contains a large number of questions in a particular subject.

Before admitting a question in the Bank, careful pretesting of questions is a necessary pre-requisite as this facilitates the teacher to compare the performance of his own students with those of the wider population.

In the operation of Question Banks, some statistical procedures should be used. The main statistical technique is known as item-analysis. In performing item-analysis, two values are computed: 1) Facility values (F.V) and 2) Discrimination Index (D.I) The first indicates the level of difficulty of the question and the second indicates the extent to which the question discriminates between good and poor candidates.

The index card for each question should indicate the following technical aspects of a question.

1. The content area/topic with which it is concerned.
2. The intellectual ability that the question/item demands of the student. It may be knowledge, comprehension, Application, Analysis, Synthesis or Evaluation.
3. The time required for answering.
4. The type of question/item whether selection or supply.
5. Marks allotted.
6. Facility Value of Difficulty Index.
7. Discrimination Index.
8. A model answer.
The Question Bank is the most modern innovation in the examination procedure. The public is very little aware of the different aspects of the Question Bank. So, before introducing Question Bank at the Higher Secondary school stage, society must be properly educated about it.

1.7.2. PRACTICE OF QUESTION BANK:

The following is the modus operandi of the scheme of Question Banks.

1. A Board of experts prepares a Question Bank.
2. Teachers are invited to submit questions with model answers for the bank. Students too should be encouraged to contribute questions with model answers for the bank. All these should be scrutinised by the Board appointed for this purpose. The questions should be modified wherever necessary, for better clarity and for easy comprehension.
3. Questions are to be grouped into different units into which the syllabus is divided. All questions should be of the same standard.
4. Using a bank, a number of question papers can be drawn, well designed and of the same standard.
5. All the questions in the bank should be made available to students throughout the year for assisting them in their studies.

6. It will be difficult to predict which of the questions would be asked in the examination.

7. The questions in the bank and the model answers provided must be such that there must also be a provision for the students to think for themselves independently for giving the answers having the model answers given as the basis.

   The questions should have been framed in a way not capable of being answered directly from a book or the lecture notes. The questions must be framed in such a way so that the reasoning and thinking power of the students may be tested.

8. The question of leakage of question paper does not arise.

9. A few questions outside the bank may also be included in the question paper.

10. It should be revised every year even though the syllabus remains the same. Some questions may be dropped, some modified and a few added.

---

Thus, the Question Bank will continue to be a live component in the academic framework, and students will not, by and large, resort to unfair means.

To prepare questions for the bank, workshops for teachers must be organised. This is emphasized by the Chairman of the Union Public Service Commission.

Experts should be drafted in every State and specialised training should be given in the establishment of rich question banks.49

In order to establish rich question banks, the State Governments should select experts and specialised training may be given to them in the art of item writing.

Pre-service and In-service Teacher Education Institutions should take up the responsibility in the preparation of Question Banks for different subjects. The Education Commission (1964-66) also endorses this view.

No major breakthrough towards the improvement of external examinations is possible unless:

a) the technical competence of paper-setters is raised through an intensive training programme sponsored by the State Boards.

b) the question papers are oriented to testing not merely the acquisition of knowledge, but the ability to apply knowledge and the development of problem-solving abilities.

49. How objective is the New-type of Examinations?
The Hindu, Editorial, October 1, 1983.
The nature of the questions asked is improved.\textsuperscript{50}

1.7.3. PROBLEMS ARISING OUT OF QUESTION BANK:

No less a person than the Chief Justice of Supreme Court of India was constrained to observe in a case which came up before him that,

"No one can accuse the teacher of not knowing the correct answer to the questions set by him, but it seems that occasionally not enough care is taken by the teachers to set questions which are free from ambiguity and to supply key answers which are correct beyond reasonable ambiguity." \textsuperscript{51}

It is sad to note that teachers do not take enough pain to set questions which are free from ambiguity. Sometimes, teachers do not supply the correct key answers to questions.

Although Question Banks go a long way to avoid many of the shortcomings of the present day examination system, one cannot say that it is entirely free from limitations. The following are a few of the real obstacles in the way of introducing and implementing the Question Banks.

\textsuperscript{51} How objective is the New-type of Examinations? The Hindu, Editorial, October 1, 1983.
1. The quality of question paper is poor for lack of reliable ready-made questions.

2. At present, many teachers lack a clear idea of a Question Bank.

3. To find talented and experienced teachers to prepare questions for a bank is a problem since item-writing is a skill.

Students are allowed to select a given number of questions from the questions posed in a test. This type of option is referred to as over-all option. Since only a few long-answer questions can be asked in a test, the sampling remains full of gaps and unrepresentative.

In order to overcome this and to have a wider sampling and therefore a better coverage of both process and content, some ingenious tester must have devised the use of optional questions to get a false satisfaction of having covered the syllabus.52

While most of the educationists favour the abolition of optional questions, R.L. Ebel, favours it.

Optional questions may be justified when a test of educational achievement must cover a broad area.53

The current thinking is that choice of questions must be abolished.

Increased use of objective tests have also been cited as a cause of cheating. The mode of response to objective tests makes some kinds of cheating easier; but multiplicity of questions makes other kinds of cheating more difficult.

Delaying examination reform on economic grounds is denying justice to the student community. Students and parents must be prepared to pay more if a better examination reform is devised. Some of the difficulties visualized on economic grounds are:

a) Objective type questions in the Bank cost more in printing.

b) Development of Question Bank will be deemed time-consuming by teachers.

c) To have Question Bank in each Higher Secondary School is not feasible.

The last of the above mentioned difficulties can be overcome by establishing school complex scheme for Question Banks on the lines recommended by the Education Commission, 1964-66. 54

1.7.4. VALUES OF QUESTION BANK

Some of the important values of the Question Bank are,

a) to make the tests valid and reliable.
b) to make the question papers test not only the simple acquisition of knowledge, but also the other higher order abilities of the students.
c) to frame question papers covering the entire content area.
d) to help the question-paper setters set quality questions within a short period of time; and
e) to break the area of secrecy about the type of questions by familiarizing the students with the Question Bank.

By making teachers aware of the objectives of their teaching, Question Bank produces a dividend which helps to promote curricular reform. Where such a bank is in operation for a few years, the continuing detailed history maintained on each question based on item-analysis should substantially improve the quality of the examinations, formative as well as summative.

The evil of mass-copying and similar malpractices which has spread like a cancer in the academic body can be eliminated or atleast minimized to a great extent by the adoption of Question Bank.

The Question Bank is an important means of bringing about necessary changes in the syllabus and close correspondence between the syllabus, its objectives and the question papers.

One of the most basic and powerful ideas in introducing Question Bank is to integrate teaching and testing.

The Question Bank is useful in terms of saving time, effort and resource and also in terms of bringing about uniformity and standardization of some kind. It makes full use of the accumulated experience of teachers and examiners, and represents an important potential contribution to the problem of examining. A carefully built up Question Bank can influence curriculum development as well.
1.8.1. INTRODUCTION:

Indian scholars and Educationalists have been carefully watching and they are very much alive to the changes that have been taking place in the system of Examination, as well as measurements and evaluations. They are very eager to make the utmost advantage of these developments for further research in examination system and for reforming and refining the same. The following are some of the very effective steps taken by the Indian educationists for reforming the system of examination at various levels.

As a first step towards this end, in the year 1953-54, the U.S. Educational Foundation sponsored an orientation programme for introducing some very important changes in the Examination system in the year 1953-54. This orientation programme was attended by 250 teachers, Headmasters and Inspecting Officers of Education Department, selected for this purpose with utmost care. This programme lasted for 8 weeks and seminars were conducted at Patna, Jabalpur, Mysore and Baroda. The following year, i.e., in 1955, 40 persons out of 250 selected for the orientation were chosen and a two-week workshop was conducted at New Delhi for them.
The special aspects which were taken up for discussion and for introducing modifications were types of tests, maintenance of cumulative records and work experience including conducting experiments in science laboratories.

In February 1958, ten evaluation officers were selected by the Ministry of Education, Government of India and were deputed to undergo an intensive training at the University of Chicago under the esteemed guidance of the eminent educationist and exponent of Educational Taxonomy, Dr. Benjamin S. Bloom. An examination unit consisting of fourteen evaluation officers was set up in August 1958 in India. The unit took up the responsibility on its shoulders for organising and conducting orientation seminars and workshops for teachers serving in secondary schools with a view to acquaint them with the new procedures in the field of evaluation.

1.8.2. AN EXPERIMENT IN INTERNAL ASSESSMENT IN TAMIL NADU.

The Tamil Nadu Government have been a pioneer in Examination Reform. The introduction of the Internal Assessment scheme in the year 1972-73 was the first step in this direction. The Internal Assessment was introduced in 468 High Schools during this period.
The following are some of the highlights of this scheme. The scheme was known as '1000-Marks Scheme' and it was flourishing in the Pioneer Mills High Schools in Coimbatore, Tamil Nadu.

This 1000-Marks scheme was introduced with the conviction that it would be sure to solve many of the problems of indiscipline and it was believed that it would serve as a great remedial measure. This scheme made provisions for both type of students—students with excellence in Academic faculties and students with outstanding abilities in Non-Academic faculties to make appreciable progress according to their aptitudes and interests.

The salient features of the scheme are that the school area has been divided into Academic faculties and Non-Academic faculties.

The State Council of Educational Research and Training (S.C.E.R.T.) extended this comprehensive scheme of Internal Assessment to another batch of 220 High Schools in the State with effect from the year 1976-77.
1.8.3. INTERNAL ASSESSMENT SCHEME AT THE HIGHER SECONDARY SCHOOL STAGE IN TAMIL NADU -- AT PRESENT

Under the new pattern of plus two stage introduced in June, 1978, there is no Internal Assessment at the end of the first year.

There is no Internal Assessment of students in the Language subjects under Part I and II. Also, there is no Internal Assessment of the students where no practical work is involved, written like the Humanities. Where practical work is involved, written paper carried 150 marks. In practical examination, Internal Assessment carries 20 marks and external practical examination carries 30 marks.

1.9. CONCLUSION

In this chapter, an attempt has been made to set forth the Examination Reform at the Higher Secondary School stage in Tamil Nadu with its two main dimensions taken up for the study, namely, Internal Assessment and Question Bank. Further, the ideology of the nine Components of the investigation namely Concept, Practice Problems and Values of Internal Assessment and Question Bank respectively and Examination Reform in General were explored. This study intends to draw upon the theoretical frame of reference presented in this chapter.
REFERENCES


5. Donald Patterson, E. Preparation and use of New Type of Examination. World Book Company, Chicago, 1925.


II REPORTS:


III PERIODICAL:


IV SCRIPTURE: