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Government of India

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एन सी ई आर टी
NCERT

PARAKH

Performance Assessment, Review, and
Analysis of Knowledge for Holistic Development

Setting Balanced Question Papers for Promoting Equivalence among School Boards

Foreword

Assessment plays a pivotal role in shaping the quality and direction of education. With the National Education Policy (NEP) 2020 emphasizing equitable, competency-based, and inclusive assessment practices, it is imperative to address the disparities in evaluation systems across school boards in India. This report on the standardization of question papers highlights an essential step toward achieving equivalence among educational boards, ensuring fairness and consistency in student assessments.

The initiative documented in this report was spearheaded by PARAKH (Performance Assessment, Review, and Analysis of Knowledge for Holistic Development), the National Assessment Centre, which is working tirelessly to enhance the assessment ecosystem in India. Through a series of workshops, PARAKH brought together representatives from various state and national boards to examine existing practices, share expertise, and build capacity in designing balanced, competency-based question papers. These workshops emphasized aligning assessment tools with the principles of the NEP 2020, thereby fostering critical thinking, conceptual understanding, and skill development.

The report captures the scope and outcomes of this collaborative effort, detailing the methodologies, discussions, and practical exercises that were undertaken to refine the assessment process. It also highlights the importance of creating templates, blueprints, and question banks to achieve uniformity while accommodating the unique requirements of different boards. By standardizing these practices, the initiative supports seamless student mobility across boards and contributes to building a more equitable educational landscape.

Prof. Dinesh Prasad Saklani

Director, NCERT

Preface

The National Education Policy (NEP) 2020 envisions a transformative shift in India's education system, emphasizing the importance of competency-based assessments, critical thinking, and equitable learning opportunities. Central to achieving this vision is the equivalence of school education boards, ensuring that students across the country have access to fair and standardized assessment practices. This report captures the efforts led by PARAKH (Performance Assessment, Review, and Analysis of Knowledge for Holistic Development) to standardize question papers and build a foundation for equivalence among boards in the critical domain of assessments.

The report details a series of workshops conducted with representatives from various state and national boards to address disparities in assessment design and implementation. These disparities, identified through a comparative analysis of Grade X and XII question papers, highlighted variations in cognitive demands, difficulty levels, and the nature of questions across boards. Such inconsistencies pose challenges to ensuring fairness and equity in student evaluations and hinder mobility between boards.

To address these challenges, PARAKH organized workshops aimed at enhancing the capacity of question paper setters. The sessions were meticulously designed to combine theoretical insights with practical applications, covering essential topics such as the principles of competency-based assessments, the development of balanced question papers, and the creation of blueprints and templates. These efforts aim to align assessment practices with the NEP 2020's emphasis on critical thinking, problem-solving, and conceptual understanding.

The workshops also sought to establish a cadre of master trainers who can cascade the learnings to broader networks within their states, thereby institutionalizing the reforms. PARAKH's continued engagement includes providing resources, developing question banks, and fostering collaboration across boards to ensure that the reforms are sustainable and scalable. This initiative represents a crucial step towards reducing reliance on rote learning and ensuring that assessments truly reflect students' skills and competencies.

Equivalence among boards is a key priority for PARAKH as it aligns with the larger goal of educational equity. By standardizing assessment frameworks, PARAKH seeks to create a level playing field where students from diverse backgrounds and boards are assessed on uniform parameters. This effort not only promotes fairness but also enhances the credibility of assessments across the country, enabling students to transition between boards and institutions without disadvantage.

This report documents the journey towards creating a standardized, competency-based assessment ecosystem and outlines a roadmap for future initiatives in this domain. PARAKH remains committed to supporting state and national boards in achieving equivalence in assessments and fostering an education system that nurtures the full potential of every learner.

Prof. Indrani Bhaduri

CEO and Head, PARAKH, NCERT

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Abbreviations

NEP	National Education Policy
NCF-FS	National Curriculum Framework - Foundational Stage
NCF-SE	National Curriculum Framework - School Education
PARAKH	Performance Assessment, Review, and Analysis of Knowledge for Holistic Development
NCERT	National Council of Educational Research and Training
SCERT	State Council of Educational Research and Training
MCQ	Multiple Choice Question
SA	Short Answer
VSA	Very Short Answer
LA	Long Answer
BP	Blueprint
QP	Question Paper
QPT	Question Paper Template
MT	Master Trainer
CGBSE	Chhattisgarh Board of School Education
MPBSE	Madhya Pradesh Board of School Education
BSER	Board of School Education Rajasthan
UBSE	Uttarakhand Board of School Education
DBSE	Delhi Board of School Education
HPBoSE	Himachal Pradesh Board of School Education
IB	International Baccalaureate
J&kBoSE	Jammu & Kashmir Board of School Education
JAC	Jharkhand Academic Council

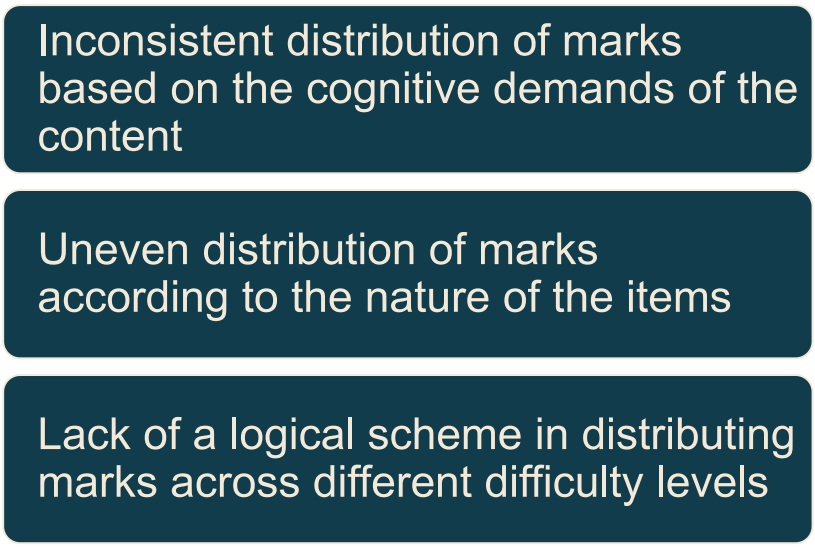
GS&HSEB	Gujrat Secondary & Higher Secondary Education Board
MSBS&HSE	Maharashtra State Board of Secondary and Higher Secondary Education
UP	Uttar Pradesh
BSEM	Board of Secondary Education Manipur
GBS&HSE	Goa Board of Secondary and Higher Secondary Education
MBSE	Mizoram Board of School Education

Overview

In July 2024, PARAKH released its first report on equivalence of school education boards[1], which outlined a series of recommendations to bring greater parity among all recognized Indian educational boards across five broad categories: Administration, Curriculum, Assessment, Infrastructure, and Inclusiveness. These recommendations were based on a comprehensive study of recent question papers set by the board.

The section on Assessment analyzed the previous year's Grade X and XII question papers from various boards and identified inconsistencies in assessment design, particularly in the following areas:

[1] Equivalence_of_Boards_Report.pdf



These disparities in assessment design pose a significant obstacle to achieving equivalence in assessments across boards and thereby limit equity in educational opportunity. Educational equity cannot be realized without a robust and high-quality assessment system. In this context, NEP 2020 proposed establishing equivalence across school education boards to raise assessment standards and promote fairness. Restructuring assessment methodologies is also critical for reducing the reliance on rote memorization and prioritizing critical thinking and the evaluation of core competencies. Furthermore, establishing a greater level of equivalence among the question papers set by state boards will allow students to transfer between boards and schools without facing disadvantages due to differing assessment systems and practices.

Building on these efforts, training sessions on designing balanced question papers were developed and piloted with teachers and board members of the Himachal Pradesh Board of School Education (HPBoSE) during a two-day workshop held at the HPBoSE campus in Dharamshala, Himachal Pradesh. Subsequently, a series of workshops on balanced question paper design were conducted at the PARAKH-NCERT campus in New Delhi. These sessions focused on standardizing question paper templates based on principles of competency-based assessment.

Relevance of this initiative

This initiative marks a significant step toward achieving the objectives of NEP 2020 by standardizing question paper templates and enhancing the capacity of question paper setters across educational boards. The workshops were designed to train resource persons in both the theoretical and practical aspects of question paper design, actively involving them in the development process. The overarching goal of this initiative is to establish a cadre of professional question paper setters and develop robust question banks, enabling standardized

and skill-oriented assessments across boards. Key principles of maximizing workshop success and long-term impact are highlighted in the figure above. These efforts collectively represent substantial progress in refining assessment practices and enhancing educational quality in alignment with the vision of NEP 2020.

Workshop Structure and Contents

Below, we summarize the structure of the workshops, and the content covered during a typical two-day workshop.

Day One

SESSION 1: REGISTRATION, WELCOME ADDRESS, AND CONTEXT-SETTING FOR THE WORKSHOP

After the registration of all participants and the initial introductions and welcome address, Prof. Indrani addressed the attendees. She outlined the objectives of the workshop, clarified the expectations from the board functionaries, and emphasized their role in taking this initiative forward beyond the workshop.

Following Prof. Indrani's address, the session commenced with a discussion on setting expectations for the workshop. An overview of the topics to be covered over the next two days was shared. The workshop was formally inaugurated with an introduction to PARAKH. The key points of the first session were as follows:

1. **An Introduction, and Key Initiatives of PARAKH**
   - Provide a thorough and detailed explanation of PARAKH outlining its objectives, structure, and significance within the Indian education system.
   - Discuss the various dimensions of PARAKH, including its primary initiatives and its role in shaping educational assessment.
2. **Assessment in NEP 2020 and NCFSE**
   - Elaborate on the perspectives on assessment as outlined in the NEP 2020 and the NCF-SE.
   - Highlight PARAKH's alignment with the NEP's vision for more formative, competency-based, and multidimensional assessments.
3. **Competency-Based Education in NCF-FS & SE**
   - Provide an overview of competency-based education as described in the National Curriculum Framework of Foundational stage and School Education.
   - Discuss how to integrate competency-based education into the assessment model, focusing on the shift towards skill-based, experiential learning outcomes.
4. **Analysis Results and Equivalence Report**
   - A detailed discussion was held on the results of the Question Paper Analysis, as presented in the Equivalence Report, with a specific focus on findings related to the boards presented in the meeting.
   - This comparative study offered a comprehensive understanding of each board's question paper design, highlighting the distribution of weightage across different factors and how it differs from other educational boards.
5. **Conclusions from the Analysis**
   - Key insights and conclusions from the analysis were discussed, focusing on disparities in question paper weightage with respect to:
     - Cognitive demands
     - Difficulty level
     - Nature of questions
   - It was noted that these disparities could have significant implications for student performance. Following the discussion, participants were given an activity to demonstrate why a single evaluation tool cannot always meet all assessment requirements.

SESSION 2: EVALUATION: TYPES AND PRINCIPLES

- Before delving into the steps for developing a balanced evaluation tool, it was essential to establish a common understanding of the concept and principles of evaluation.

- The facilitator explained the meaning of evaluation and the difference between measurement and evaluation.
- The discussion further elaborated on the different types of evaluation, including Placement Evaluation/Entry Behavior, Formative Evaluation, Diagnostic Evaluation, and Summative Evaluation.
- Principles of evaluation, such as defining what is to be evaluated, selecting appropriate evaluation techniques, and understanding the strengths and limitations of various methods, were explained using real-world examples.
- Characteristics of a good evaluation scheme

SESSION 3: STEPS FOR DEVELOPMENT OF A BALANCED QUESTION PAPER

1. **Foundations of Question Paper Design**
   - The construction of a question paper is underpinned by several foundational bases that ensure its effectiveness and relevance. These include:
     - Philosophical Basis
     - Sociological Basis
     - Psychological Basis
     - Scientific Basis
     - Pedagogical Basis
2. **Steps to Develop a Balanced Question Paper**
   - The process of developing a balanced question paper can be systematically approached through several key steps, including.:
     - Preparation of a Design
     - Preparation of a Blueprint
     - Writing of Questions
     - Assembling Questions in the Form of a Question Paper
     - Preparing Scoring Key/Marking Scheme
     - Carrying out Question-wise Analysis
     - Moderation of a Question Paper
   - The workshop presenters discussed each step thoroughly to make sure that the participants were well-versed in the process.

SESSION 4: HANDS ON PRACTICE SESSION

- After discussion over the template of assessment design and blueprint, all the participants were given a template for assessment design and QP blueprint. As a familiarization exercise, they were instructed to analyse their previous year question papers. This activity continued till day end and each participant had to submit analysis of at least one previous year question paper.

The session concluded with an open discussion on the process of developing assessment designs and blueprints that they followed in their state boards and various challenges associated with the same.

Day Two

SESSION 1: RECAP AND QUERIES

- This session commenced with a brief recap of last day's session and took queries of participants related various concepts discussed yesterday and addressed the same.

SESSION 2: COMPETENCY-BASED ASSESSMENT

Post recap session, the facilitators started the session on Competency-based Assessment which covered the following key concepts:

- Meaning of Competency and Definition Aligned with NCF-FS and NCF-SE
- Key Attributes of Competency-Based Questions
- Goals of Competency-Based Assessment
- Strengthen concept understanding
- Enhance student appreciation of concepts
- Identify learning gaps/misconceptions
- Assess higher order thinking skills
- Assessment methods across stages
- Key principles for effective assessment design
- Discussion on exemplars
- A brief discussion on guidelines of item review

SESSION 3: FRAMING OF QUESTIONS AND STRENGTH & LIMITATIONS OF DIFFERENT NATURE OF QUESTIONS

This session started with discussion on following characteristics of a good question:

- Test the desired objectives effectively
- Content Coverage
- Form of question
- Language/Wording of question
- Structuring the Situation
- Difficulty level
- Discriminating Value
- Delimitation of the scope of the expected answer
- Key/Marking Scheme
- Translatability
- Types of questions
- Selection type

- Supply type
- Strength and limitations of various types of questions

SESSION 4: SUMMARY AND HANDS ON ACTIVITY

- This session followed by summarization of what had been covered in last two days.
- Then participants were divided into subgroups as per their subject specialization and assigned them the task of development of an assessment design and corresponding blueprint for a summative assessment of board examination.
- This activity was an extensive exercise for participants which typically took 2-4 hours to complete.

SESSION 5: OPEN DISCUSSION

A variety of queries were asked during the open discussion session, some of the queries asked were following:

- Methodologies for evaluating and adjusting the difficulty level of question papers. Participants were encouraged to consider cognitive load and question accessibility to ensure an appropriate level of challenge for students.
- The principles of writing competency-based items and the steps for reviewing these items. A checklist of the item-review process was discussed with participants for better understanding.
- Additionally, there was a discussion on how to determine key parameters for a question paper, such as time allocation, maximum marks, and the number of questions.

SESSION 6: WAY FORWARD OF THE WORKSHOP

The workshop concluded with discussions on the way forward. Participants were asked to form a core group of assessment developers in their respective states, who would undergo further training. They were also encouraged to outline a training schedule and share budget proposals with PARAKH-NCERT for review.

Feedback/Reflection/Suggestions received from different boards

Workshop 1	
October 14-15, 2024	Chhattisgarh, Rajasthan, and Madhya Pradesh

Session Feedback	The two-day duration was inadequate for thorough hands-on practice of different steps to develop a balanced question paper.
Expectations/Current Practices	Madhya Pradesh aims to align school education assessment with board standards to improve learning outcomes and performance.
Requests/Suggestions for PARAKH	• Formally involve the State Directorate of Education in assessment equivalence implementation. • Issue formal communication to state directorates to emphasize the significance of reforms and ensure effective collaboration.
Suggestions for Implementation	Strengthen collaboration between PARAKH and state-level agencies to create a structured, cohesive learning environment.

Workshop 2	
October 17-18, 2024	Delhi, Himachal Pradesh, Punjab, Uttarakhand, and Uttar Pradesh

Session Feedback	• Participants recommended follow-up workshops to enhance understanding and reinforce concepts after practical implementation. • Suggested conducting subject-specific workshops across states to promote standardization of question papers
Expectations/Current Practices	• The DBSE's approach does not assign marks to students. Instead, it evaluates the specificity of acquired skills by grading them on a pre-decided matrix. • The Delhi Board of School Education follows IB academic standards and needs support to align with other boards.
Requests/Suggestions for PARAKH	• Provide detailed guidelines for integrating IB methodologies with NCF-SE recommendations and other board practices. • Share case studies or research materials to improve conceptual engagement and application.
Suggestions for Implementation	Encourage educational board functionaries to organize follow-up workshops and cross-state collaboration for standardized practices.

Workshop 3	
October 21-22, 2024	Gujrat, Jammu & Kashmir, Jharkhand, and Maharashtra

Session Feedback	Participants proposed extending the workshop duration to 3–4 days for detailed discussions on assessment design, blueprint development, and linking competencies with assessment frameworks.
Expectations/Current Practices	• Participants (Except Gujrat) acknowledged the need for consistency in assessment design across language and non-language subjects. • The Gujarat Board advocated for separate blueprints for language and non-language subjects to address unique needs.
Requests/Suggestions for PARAKH	Not explicitly mentioned.
Suggestions for Implementation	Consider subject-specific variations while maintaining equivalence in broader assessment frameworks.

Workshop 4	
October 24-25, 2024	Assam, Goa, Manipur, and Mizoram

Session Feedback	Participants suggested longer workshop durations for in-depth discussions and grade-specific sessions (e.g., Grades X and XII).
Expectations/Current Practices	• Manipur, Mizoram, and other states follow a simplified taxonomy merging Bloom's analysis, synthesis, and evaluation levels. While simplifying assessment processes, this approach limits distinct skill evaluation. • In Manipur Board, all answer scripts are digitally barcoded before evaluation, ensuring both accuracy and transparency in the assessment process.
Requests/Suggestions for PARAKH	• Develop standardized instructional guidelines for question papers setters to ensure clarity and fairness. • Address the limitations of simplified taxonomies by providing alternative methods to assess higher-order thinking skills effectively.
Suggestions for Implementation	Most participants requested support from PARAKH when conducting these workshops to ensure academic guidance and effective knowledge transfer without any dilution.

Workshop 5	
October 28-29, 2024	Andhra Pradesh, Meghalaya, Nagaland, Sikkim, and Tripura

Session Feedback	• Participants recommended more time for practicing question framing, paper review, and analysis during workshops. • Encouraged close involvement of subject experts from PARAKH for targeted guidance.
Expectations/Current Practices	• Andhra Pradesh follows fixed academic standards that differ from other boards. • To prevent question paper leaks, Andhra Pradesh Board follows student-specific, uniquely QR-coded question papers. • In Andhra Pradesh Board, the maximum time allotted for the examination is 195 minutes, of which 15 minutes are designated for reading the Question Paper (QP), and the remaining 180 minutes are allocated for answering the questions. • In some states, boards handle final exams, while SCERTs manage assessments for other grades, leading to inconsistencies.
Requests/Suggestions for PARAKH	Develop clear guidelines for: • Harmonizing diverse academic standards across the board. • Create examination guidelines specifically designed for open school boards, such as those in Sikkim.
Suggestions for Implementation	• PARAKH should write to various examination bodies in the states to align practices across grades to ensure equivalence between board exams and other assessments. • Include open schooling boards in assessment equivalence initiatives.

Workshop 6	
November 4-5, 2024	Karnataka, Kerala, Tamil Nadu, and Telangana

Session Feedback	• Participants appreciated hands-on activities focused on identifying effective questions and their reasoning. • Proposed chapter-based tasks for development of diverse item types.
Expectations/Current Practices	• Kerala's SCERT maintains quality through a trained pool of question paper setters, aligning practices with PARAKH's vision. • During the pandemic, Karnataka Board introduced *Vidyagama*, a program that enabled backyard teaching, bringing education directly to students in their local settings. This initiative showcased the potential for community-centered, flexible teaching models in addressing educational gaps during emergencies.
Requests/Suggestions for PARAKH	Create a glossary to standardize frequently misunderstood assessment terms and improve implementation consistency.
Suggestions for Implementation	• Incorporate more hands-on activities focused on identifying effective questions type for an instructional objective and the reasoning behind them. • Subject experts to engage in collaborative discussions with groups during the blueprint design phase. Assigning a chapter to each subgroup could further encourage the creation of diverse items. • Organize separate workshops for grades 10 and 12 question paper setters for more focused discussions.

Recommendations/Way Forward

The workshops were highly appreciated by the teachers, including board members from the examination branch. Their active involvement and the positive feedback emphasized the workshop's value in enhancing assessment practices. However, a few areas were identified for further improvement, which could strengthen future sessions:

1. **Extend Workshop Duration for Deeper Engagement**

   Participants consistently highlighted that the two-day duration was inadequate for thorough hands-on practice in assessment design, blueprint creation, and model question paper development. It is recommended to extend the workshop duration to three or four days. This would provide participants ample time to practice, refine, and apply the concepts effectively. It would also allow for more interactive discussions on linking competencies to balanced question paper designs.

2. **Establish a Core Group of Master Trainers (MTs)**

   To ensure the sustained impact of these workshops, leveraging the trained board members as Master Trainers is crucial. It is recommended for boards to develop a cadre of Master Trainers within each state. These MTs should work closely with the board administration to develop a pool of assessment setters within the state. The primary responsibility of these MTs would be to identify and nominate qualified resource persons in their state, ensuring the cascading of training to other teachers. This approach would create a more focused and structured capacity-building framework, while also reducing the workload and responsibility on a core group.

3. **Conduct Grade-Specific Workshops**

   Feedback emphasized the need for workshops tailored to the specific assessment requirements of different grades. It is recommended to the internal team as well as for the boards to organize separate workshops for Grades X and XII, when they will plan future workshops. This grade-focused approach would enable in-depth discussions on stage-specific competencies, learning outcomes, and assessment frameworks, addressing the distinct challenges of each grade level.

4. **Expand Workshop Content and Modules**

   There is potential to broaden the scope of future workshops to address specific participant needs. It is recommended to include a comprehensive analysis module on the strengths and weaknesses of various question types (e.g., MCQs, short answer, essay-based). This would enable participants to align question types with evaluation objectives more effectively. Apart from this, it includes dedicated sessions for Item Review, Question Paper

Analysis, and Moderation of Question Papers. These practical modules would allow participants to critically evaluate and refine question papers for quality assurance.

5. **Promote Collaboration and Resource Sharing**

   Encouraging collaboration among participants from different educational boards would amplify the workshop's outcomes. Facilitate cross-state workshops to share best practices and ensure equivalence in assessment standards. Collaborative learning and access to resources would create consistency across states and boards while enriching participants' conceptual clarity.

6. **Strengthen Question Paper Standardization Efforts**

   Several states highlighted the need for harmonized assessment practices across grades and boards. Thus, it is recommended to develop and disseminate guidelines for question paper standardization. Uniform guidelines would address inconsistencies in assessment practices, ensuring fairness and alignment with NCF-SE recommendations. Also, these guidelines should be tailored to accommodate the unique requirements of some specific boards like IB, open schooling boards etc.

7. **Provide Support for Continuous Professional Development (CPD)**

   Workshops should not be standalone events but part of an ongoing learning journey. It is recommended to organize follow-up workshops and refresher courses to assess and address implementation challenges. CPD would reinforce learning, sustain motivation, and build a robust ecosystem for assessment reforms.

Conclusion

The two-day educational workshops provided a comprehensive understanding of key aspects of educational assessments, in alignment with NEP 2020 and PARAKH's initiatives, while demonstrating how competency-based education can enhance traditional assessment methods. The session explored in depth the distinction between measurement and evaluation, alongside the principles of various evaluation types, fostering practical and insightful discussions among participants.

The interactive sessions equipped participants with practical knowledge on developing balanced question papers, beginning with a thorough overview of the philosophical, sociological, scientific, and psychological foundations of question paper design. Participants actively engaged by deconstructing previous years' question papers and creating blueprints, fostering a collaborative and dynamic learning environment. By the conclusion of the workshop, teachers and facilitators had worked together effectively, gaining valuable strategies to enhance assessment practices in their classrooms. The workshop concluded on a positive note, with recognition of participants' contributions and the valuable guidance provided by the facilitator.

Annexures

Annexure 1: Workshop Details

Schedule of Workshop:

S.no	Dates of Workshop	Participating States	
		Planned	Actual
1.	September 25-26, 2024 (Pilot Workshop)	Himachal Pradesh Board of School Education	Himachal Pradesh Board of School Education
2.	October 14-15, 2024	Bihar, Chhattisgarh, Haryana, Rajasthan, and Madhya Pradesh	Chhattisgarh, Rajasthan, and Madhya Pradesh
3.	October 17-18, 2024	Delhi, Himachal Pradesh, Punjab, Uttarakhand, and Uttar Pradesh	Delhi Board of School Education (DBSE), Himachal Pradesh, Punjab, CISCE Board, and Uttarakhand
4.	October 21-22, 2024	Gujarat, Jammu & Kashmir, Jharkhand and Maharashtra	Gujarat, Jammu & Kashmir, Jharkhand, Uttar Pradesh and Maharashtra
5.	October 24-25, 2024	Assam, Goa, Manipur, Mizoram, and West Bengal	Assam, Goa, Manipur, and Mizoram
6.	October 28-29, 2024	Andhra Pradesh, Meghalaya, Nagaland, Sikkim and Tripura	Andhra Pradesh, Meghalaya, Nagaland, Sikkim, and Tripura
7.	November 04-05, 2024	Odisha, Karnataka, Kerala, Tamil Nadu and Telangana	Karnataka, Kerala, Tamil Nadu, and Telangana
8.	November 18-19, 2024	Bihar, Haryana, Odisha, and West Bengal	Haryana, NIOS, and West Bengal
9.	November 27-28, 2024	CBSE	CBSE and Odisha

Annexure 2: Concept Note of the Workshops

Setting Balanced Question Paper for Promoting Equivalence in School State Boards

Date: Oct 14 to Nov 5, 2024

At

PARAKH Conference Room, 4th Floor, Zakir Hussain Block, NCERT, Sri Aurobindo Marg, New Delhi – 110016

Concept Note

NEP 2020 is the first education policy of the 21st century, addressing the growing developmental imperatives of our nation. This policy proposes a comprehensive revision and revamping of all aspects of the educational structure, including regulation and governance, to establish a system that aligns with the aspirational goals of 21st-century education. In this context, the National Assessment Centre, PARAKH (Performance Assessment, Review, and Analysis of Knowledge for Holistic Development), serves as a standard-setting body under the Ministry of Education. Its primary objective is to establish norms, standards, and guidelines for student assessment and evaluation across all recognized school boards in India.

PARAKH provides guidance to school boards on new assessment patterns and the latest research, promoting collaboration among school boards. It functions as a platform for sharing best practices and ensuring academic standards' equivalence across various boards, thus fostering fairness and uniformity in student learning outcomes.

PARAKH believes in the philosophy that achieving educational equity requires a robust and high-quality assessment system. PARAKH emphasizes the need for equivalence across school education boards to enhance assessment standards and ensure fairness. Restructuring assessment methodologies is essential to minimizing rote learning and focusing on critical thinking and the evaluation of core competencies. Furthermore, such changes will facilitate student mobility across boards and schools without disadvantaging them due to differing assessment systems.

This series of workshops represents a critical step towards realizing PARAKH's vision by standardizing question paper templates and enhancing the capacity of question paper setters from various boards. The workshop aims to train master trainers in both the theoretical and practical aspects of question paper design, actively involving them in the development process who will further go in their respective states to train cadre of specialized teacher who will be then trained in designing quality question paper.

The two-day workshop will provide a comprehensive understanding of key aspects of educational assessment, aligned with NEP 2020 and PARAKH's initiatives while illustrating how competency-based education can enhance traditional assessment methods. In-depth discussions will be held on question paper analysis, identifying areas for improvement in question design. Participants will also explore the differences between measurement and evaluation, along with the principles of various evaluation methods, engaging in practical exercises and meaningful discussions. The workshop will conclude by outlining how these practices will be disseminated to other assessment developers across the states.

Annexure 3: Agenda of the Workshop

Setting Balanced Question Paper for Promoting Equivalence in School State Boards

At

PARAKH Conference Room, 4th Floor, Zakir Hussain Block, NCERT, Sri Aurobindo Marg, New Delhi – 110016

Workshop Agenda

Day 1

Time	Session Details
9.30 AM-10:30 AM	Registration and Attendance
10:30 AM-11:00 AM	Welcome Address and self-introduction of Participants
11:00 AM-11:15 AM	Tea-Break
11:15 AM-11:30 AM	Keynote Address and Introduction of Program
11:30 AM-1:00 PM	Context-setting and results of the Equivalence of Boards report (QPT Analysis) under the aegis of NEP and NCF-SE Concepts of Evaluation, Foundations and Principles of a Question paper setting
1:00 PM-1:30 PM	Lunch Break
1:30 PM-3:00 PM	Steps to develop a Balanced Question papers
3:00 PM-3:15 PM	Tea Break
3:15 PM-5:30 PM	Hands on activity on deconstruction of Previous Year Question Papers to outline Assessment framework, design and Blueprint. Open Discussion and Q&A
End of Day 1	

Day 2

Time	Session Details
9:30 AM-11:00 AM	Introduction to Competency-Based assessment
11:00 AM-11:15 AM	Tea Break
11:15 AM-1:00 PM	Steps to develop a Balanced Question papers and Different nature of tools of evaluation
1:00 PM-1:30 PM	Lunch Break
1:30 PM-3:00 PM	Development of Assessment design and Blueprint Hands-on activity on designing a balanced question paper
3:00 PM-3:15 PM	Tea Break
3:15 PM-4:45 PM	Continuation of hands-on activity and Work Presentation
4:45 PM-5:30 PM	Q&A and Way Forward
End of Day 2	

Annexure 4: List of participants

WORKSHOP 1

S. No.	NAME	State	Insititution/Board
1	Pavnesh Kumar	Resource Person	New Delhi
2	Dr. B. Singh	Observer	New Delhi
3	Monika Ohri	Observer	New Delhi
4	Sangeeta Deshmukh	Chhattisgarh	Govt. H.S.S. Serikhedi (CGBSE)
5	Dr. Madhuri Borekar	Chhattisgarh	Govt. H.S. Kolar Abhanpur, C.G(CGBSE)
6	Dr. Ritu Singh	Chhattisgarh	G.H.S. School Dumarfurai, Raipur C.G.
7	Dr. Nisha Singh	Chhattisgarh	Govt. (TWD) HR-Sec. School Karwan Surajpur (CGBSE)
8	Dr. Pradeep Kumar	Chhattisgarh	C.G.B.S.E. Raipur
9	Kiran Sharma	Madhya Pradesh	M.P. Board Education Bhopal
10	Seema Goud	Madhya Pradesh	M.P. Board of Secondary Education Bhopal
11	Vijay Kumar Badiye	Madhya Pradesh	M.P. Board of Secondary Education Bhopal
12	Umesh R. Chaudhary	Madhya Pradesh	M.P. Board of Secondary Education Bhopal
13	Mukesh Kumar Malviye	Madhya Pradesh	M.P. Board of Secondary Education Bhopal
14	Rakesh Swami	Rajasthan	BSER, Ajmer Rajasthan
15	Dinesh Kumar	Rajasthan	BSER, Ajmer Rajasthan
16	Shankar Lal Jangid	Rajasthan	GSSS Riyan Badi Nagavar, Rajasthan
17	Arun Kumar Sharma	Rajasthan	MGGS Kunchalwara Kalan, Rajasthan
18	Rajesh Pareek	Rajasthan	MGGS, Sawar Dist. Kekri, Rajasthan

WORKSHOP 2

S. No.	NAME	STATE	Institution/ Board
1	K.S. Pandey	Uttarakhand	U.B.S.E. Nainital Uttarakhand
2	Sonam Sharma	Uttarakhand	U.B.S.E. Nainital Ramnagar Uttarakhand
3	Dr. Nandan Singh	Uttarakhand	U.B.S.E. Nainital Ramnagar Uttarakhand
4	B.M.S. Rawat	Uttarakhand	U.B.S.E. Nainital Ramnagar Uttarakhand
5	Shailendra Joshi	Uttarakhand	U.B.S.E. Nainital Ramnagar Uttarakhand
6	Baljinder Singh	Punjab	Punjab School Education Board
7	Kulbir Singh	Himachal Pradesh	H.P. Board of School Education
8	Ashwani Kumar	Himachal Pradesh	H.P. Board of School Education
9	Puran Chand	Himachal Pradesh	H.P. Board of School Education
10	Praveen Kumar	Himachal Pradesh	H.P. Board of School Education
11	Ritesh Garg	Himachal Pradesh	H.P. Board of School Education
12	Raj Kumar	Delhi	CISCE
13	Deba Priya Ray	Delhi	CISCE
14	Parul Kohli	Delhi	CISCE
15	Dr. Reema	Delhi	CISCE
16	Nandini	Uttarakhand	St. Thomas College Dehradun
17	Dr. Jyoti	Karnataka	Vidya Niketan School Bengaluru
18	Prabhajot	Delhi	DBSE
19	Vikas Ranjan	Delhi	DBSE
20	Heena Jain	Delhi	DBSE
21	Mohd. Shariq	Delhi	DBSE
22	Deepti Chawla	Delhi	DBSE
23	Anu Batta	Punjab	Department of School Education, Punjab
24	Pritpal Singh	Punjab	Punjab School Education Board

WORKSHOP 3

S. No.	NAME	STATE	Institution/Board
1	Aliya Qayoom	J&K	J&KBoSE
2	Parsidh Singh	J&K	J&KBoSE
3	Dr. Arif Jan	J&K	J&KBoSE
4	Syed Kashif Hashmi	J&K	J&KBoSE
5	Sunita Shruti Mahto	Jharkhand	JAC, Jharkhand
6	Rashmi Jain	Jharkhand	JAC, Jharkhand
7	Akshay Kumar	Jharkhand	JAC, Jharkhand
8	Abdhesh Kumar Singh	Jharkhand	JAC, Jharkhand
9	Kalyan Mohan Khan	Jharkhand	JAC, Jharkhand
10	Vaishnav Divyesh K. Damodardas	Gujarat	GS&HSEB, Gujrat
11	B.N. Rojgar	Gujarat	GS&HSEB, Gujrat
12	Pravinchandra Pratapray Joshi	Gujarat	GS&HSEB, Gujrat
13	Vanraj Sinh D. Chavda	Gujarat	GS&HSEB, Gujrat
14	Mehul Kumar Amrutlal Patel	Gujarat	GS&HSEB, Gujrat
15	Dr. Mithun Khandwala	Gujarat	GS&HSEB, Gujrat
16	Anurradha Oak	Maharashtra	MSBS&HSE, Pune
17	Chander Kumar	J&K	JKBoSE
18	Shivani Lamaye	Maharashtra	MSBS&HSE, Pune
19	Suvrana Vishwas Deshpande	Maharashtra	MSBS&HSE, Pune
20	Shridhar Nagargoje	Maharashtra	MSBS&HSE, Pune
21	Dr. Govind Diliprao Kulkarni	Maharashtra	MSBS&HSE, Pune
22	Sunil Kumar Singh	Uttar Pradesh	Madhyamik Shiksha Parishad, UP
23	Juhi Srivastva	Uttar Pradesh	Madhyamik Shiksha Parishad, UP
24	Priti Sahu	Uttar Pradesh	Madhyamik Shiksha Parishad, UP
25	Vaishali Tiwari	Uttar Pradesh	Madhyamik Shiksha Parishad, UP
26	Bindu Yadav	Uttar Pradesh	Madhyamik Shiksha Parishad, UP

WORKSHOP 4

S. No.	NAME	State	Institution/Board
1	Iron Chandra Kumar Singh	Manipur	BSEM, Manipur
2	Mr. Laxmikant K. Tamankar	Goa	GBS & HSE, Goa
3	Dr. Dipak Sagar Das	Assam	ASSEB, Div I & II, Assam
4	Dr.W. Joykumar Singh	Manipur	BSEM, Manipur
5	Mr. Laba Kumar Thakuria	Assam	ASSEB, Div I & II, Assam
6	Dr. Jonathan Lalrinmawia	Mizoram	MBSE, Aizawl
7	Hintendra Nath Sarma	Assam	ASSEB, Div I & II, Assam
8	Mr. Prashant LL. Dessai	Goa	GBS & HSE, Goa
9	Mr. Ruildo Dsouza	Goa	GBS & HSE, Goa
10	Thoudam Subhaschandra Singh	Manipur	BSEM, Manipur
11	Lallawmkima chawngthu	Mizoram	MBSE, Aizawl
12	S. Jitelal Sharma	Manipur	BSEM, Manipur
13	Mrs. Rodrigues Maria Bonita Marcal	Goa	GBS & HSE, Goa
14	Maria Myra Correia	Goa	GBS & HSE, Goa
15	Wazid Ali	Assam	ASSEB, Div I & II, Assam
16	Lalrinmawia Ralte	Mizoram	MBSE, Aizawl
17	Lal Ramsanga	Mizoram	MBSE, Aizawl
18	Michael Lalinmawia	Mizoram	MBSE, Aizawl
19	Ananta Hazarika	Assam	ASSEB, Div I & II, Assam
20	Dr. Elangbam Iboyaima Singh	Manipur	BSEM, Manipur

WORKSHOP 5

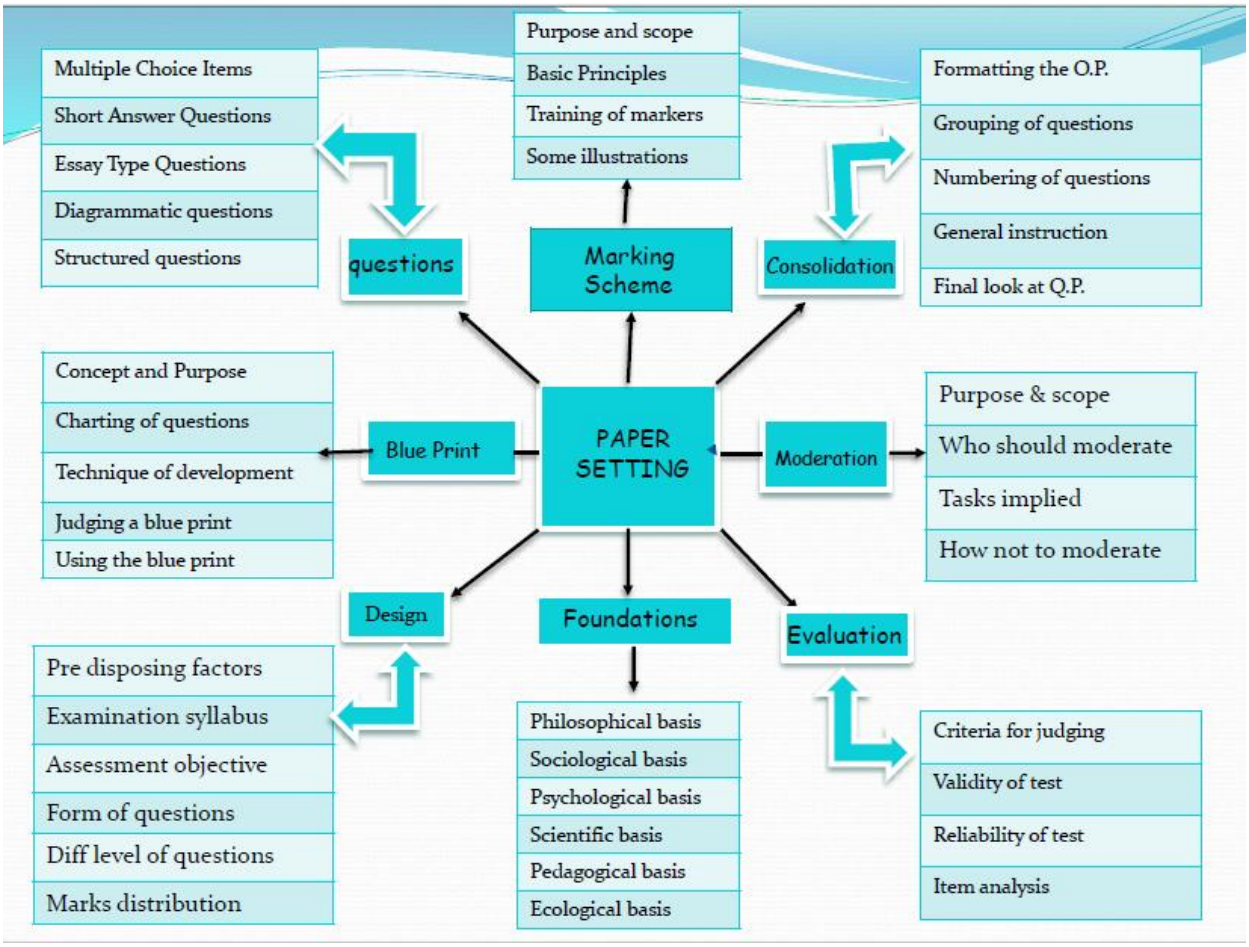
S. No.	Name	State	Institution/Board
1	K. Srinivasulu	Andhra Pradesh	Board of Secondary Education, Andhra Pradesh
2	B. Srinivasa Rao	Andhra Pradesh	Board of Secondary Education, Andhra Pradesh
3	Dr. TSVS Suryanaraya Murthy	Andhra Pradesh	Board of Secondary Education, Andhra Pradesh
4	M. Srinivasa Rao	Andhra Pradesh	Board of Secondary Education, Andhra Pradesh
5	K Suresh	Andhra Pradesh	Board of Secondary Education, Andhra Pradesh
6	Mr. Ekyimo Shitirie	Nagaland	Nagaland Board of School Education
7	Mr. Kekhrielelie Mepfuo	Nagaland	Nagaland Board of School Education
8	Smt. Ruchunino Ziephru	Nagaland	Nagaland Board of School Education
9	Ms. Siduniu Rentta	Nagaland	Nagaland Board of School Education
10	Mr. Visanyu Solo	Nagaland	Nagaland Board of School Education
11	Dr. Shiny Ch Sangma	Meghalaya	Meghalaya Board of School Education
12	Smt. Memory Kurbah	Meghalaya	Meghalaya Board of School Education
13	Smt. Amanda Jyrwa	Meghalaya	Meghalaya Board of School Education
14	Smt. Manjushri Modak	Meghalaya	Meghalaya Board of School Education
15	Shri. Feroz Siddiqui	Meghalaya	Meghalaya Board of School Education
16	Ms. Jyoti Rajawat	Sikkim	Board of Open Schooling & Skill Education
17	Ms.Bandana Panda	Sikkim	Board of Open Schooling & Skill Education
18	Ms Pushpa Bansal	Sikkim	Board of Open Schooling & Skill Education
19	Ms Shefali Pandit	Sikkim	Board of Open Schooling & Skill Education
20	Ms Saroochi Bhat	Sikkim	Board of Open Schooling & Skill Education
21	Sri Pallab Kanti Saha	Tripura	Tripura Board of Secondary Education
22	Sri Ramkrishna Bhattacharya	Tripura	Tripura Board of Secondary Education
23	Sri Gautam Chakraborti	Tripura	Tripura Board of Secondary Education
24	Sri Lakshman Das	Tripura	Tripura Board of Secondary Education
25	Sri Shirsendu Choudhury	Tripura	Tripura Board of Secondary Education

WORKSHOP 6

S. no.	Name	State	Institution/Board
1	Sri K.Srinivasa Rao	Telangana	Board Of Secondary Education, Telangana
2	Sri C V Harikrishna	Telangana	Board Of Secondary Education, Telangana
3	Sri Pdl Ganapathi Sarma	Telangana	Board Of Secondary Education, Telangana
4	Dr J Yellaiah	Telangana	Board Of Secondary Education, Telangana
5	Sri A Bhanu Prakash	Telangana	Board Of Secondary Education, Telangana
6	V. Vijayabanu	Tamil Nadu	School Education Department, Tamil Nadu
7	P. Rajani	Tamil Nadu	School Education Department, Tamil Nadu
8	Dr. B. Silambarasi	Tamil Nadu	School Education Department, Tamil Nadu
9	Mrs. D. Shiyamala	Tamil Nadu	School Education Department, Tamil Nadu
10	D. Iyappan	Tamil Nadu	School Education Department, Tamil Nadu
11	Sharada H S	Karnataka	Karnataka School Examination & Assessment Board, Bangalore
12	Anantha Lakshmi	Karnataka	Karnataka School Examination & Assessment Board, Bangalore
13	Gireesh C	Karnataka	Karnataka School Examination & Assessment Board, Bangalore
14	Sadananda R	Karnataka	Karnataka School Examination & Assessment Board, Bangalore
15	Dr. Deepa V	Karnataka	Karnataka School Examination & Assessment Board, Bangalore
16	Rajesh S.	Kerala	Board of Public Examinations, Kerala
17	Dr. Vineesh T.V.	Kerala	Board of Public Examinations, Kerala
18	Dr. Anil D	Kerala	Board of Public Examinations, Kerala
19	Dr. Abhilash Babu P	Kerala	Board of Public Examinations, Kerala
20	Dr.Gireesh Cholayil	Kerala	Board of Public Examinations, Kerala

Annexure 5: Additional Templates used in the Workshops

5.1: PAPER SETTING FLOWCHART



5.2: ASSESSMENT DESIGN TEMPLATE

Format of Design

Question Paper/Test

Subject:

Unit/Paper:

Class:

Time:

Marks:

Weightage to Objective

Objective	Knowledge	Understand	Application	Analyse	Evaluation	Creation	Total
Percentage of Marks							
Marks							

Weightage to form of question:

Forms of Questions	E/LA	SA	VSA	O (MCQ)	Total
No. Of Questions					
Marks allotted					
Estimated time					

Weightage to Major Content Areas:

S. No.	Unit/Sub-Units	Marks
1.		
2.		

3.		
4.		
5.		
6.		
Total		

Schemes of Sections	
Pattern of Options	

Estimated difficulty level:	Difficult	%marks
	Average	%marks
	Easy	%marks

Index of Abbreviations:

(E/LA: Essay/Long Answer; SA: Short Answer; VSA: Very Short Answer; O: Objective)

5.3: BLUEPRINT TEMPLATE

FORMAT OF BLUEPRINT

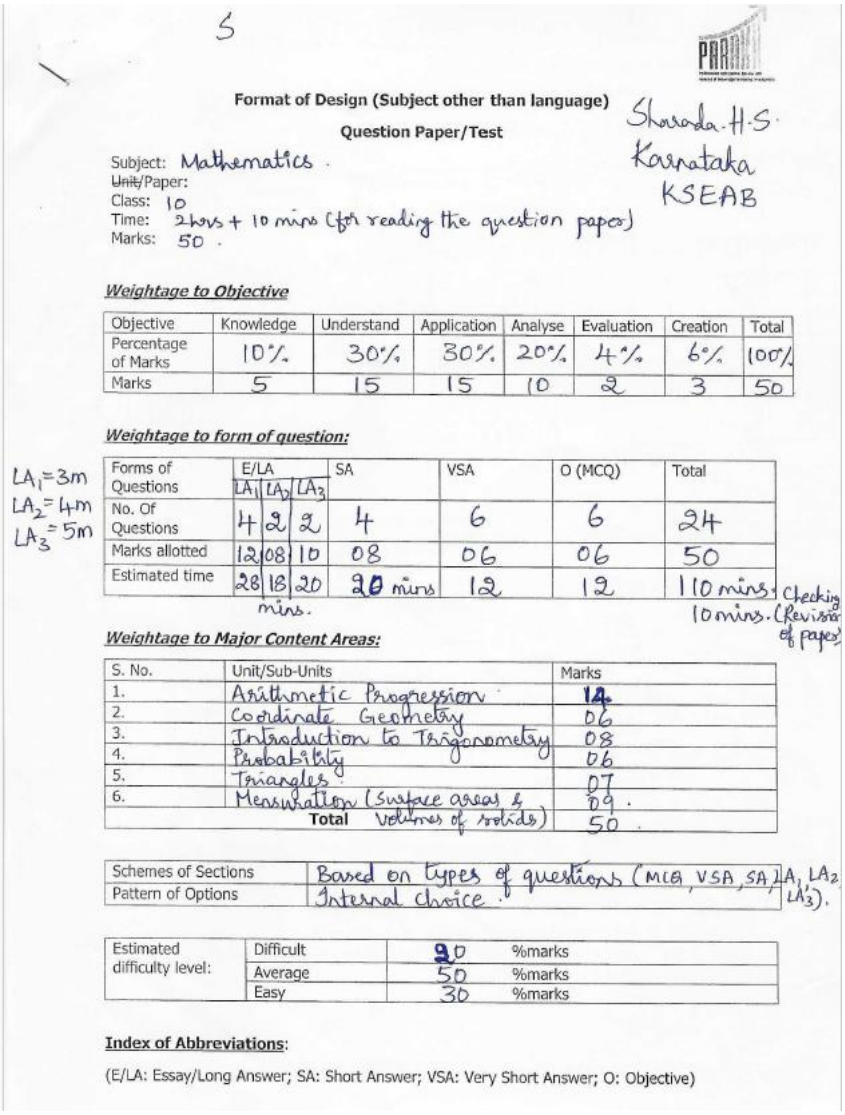
Subject	:	_____				Class	: _____
Unit/Paper:	:	_____	Max Marks	:	_____	Time	: _____

S. No.	Objective → / Form of Questions / Content Unit/ Sub Unit	Knowledge				Understanding				Application				Analysis				Evaluation				Creation				Total Row Wise
		E/LA	SA	VSA	O	E/LA	SA	VSA	O	E/LA	SA	VSA	O	E/LA	SA	VSA	O	E/LA	SA	VSA	O	E/LA	SA	VSA	O	
		d	j	j	j	d	i	i	i	d	h	g	f											e	e	c
		d	j	j	j	d	i	i		d	h	g	f											e	e	c
		d	j	j	j	d	i	i		d	h	g	f											e	e	c
		d	j	j	j	d	i	i		d	h	g	f											e	e	c
		d	j	j	j	d	i	i		d	h	g	f											e	e	c
		d	j	j	j	d	i	i		d	h	g	f											e	e	c
	Sub Total																									Marks (QS)
	Total Column → / Wise	b (Marks Total)				b (Marks Total)				b (Marks Total)				b (Marks Total)				b (Marks Total)				b (Marks Total)				a

Notes: Figures within brackets to indicate the number of questions and figures outside the brackets to indicate marks.
Denotes that marks have been combined to form one question.

Summary :	Essay (E)	No. _____	Marks _____	Pattern of Options	_____	
	Short Answer (SA)	No. _____	Marks _____			
	Very Short Answer (VSA)	No. _____	Marks _____	Scheme of Sections	_____	
	Objective (O)	No. _____	Marks _____			
Steps:	a, b, c, d, e, f, g, h, i, j					

Annexure 6: Few glimpses of participant's work



5

Format of Design (Subject other than language)

Question Paper/Test

Sharada.H.S.
Karnataka
KSEAB

Subject: Mathematics
~~Unit~~/Paper:
Class: 10
Time: 2hrs + 10 mins (for reading the question paper)
Marks: 50

Weightage to Objective

Objective	Knowledge	Understand	Application	Analyse	Evaluation	Creation	Total
Percentage of Marks	10%	30%	30%	20%	4%	6%	100%
Marks	5	15	15	10	2	3	50

Weightage to form of question:

LA_1=3m
LA_2=4m
LA_3=5m

Forms of Questions	E/LA			SA	VSA	O (MCQ)	Total
	LA_1	LA_2	LA_3				
No. Of Questions	4	2	2	4	6	6	24
Marks allotted	12	08	10	08	06	06	50
Estimated time	28 mins.	18	20	20 mins	12	12	110 mins + Checking 10 mins. (Revision of paper)

Weightage to Major Content Areas:

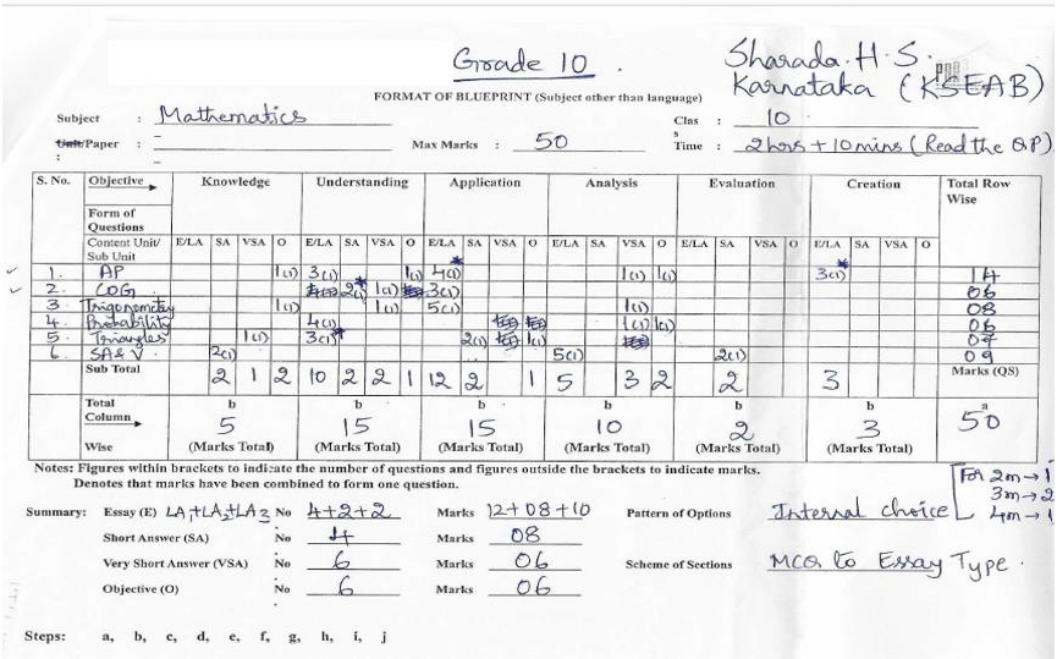
S. No.	Unit/Sub-Units	Marks
1.	Arithmetic Progression	14
2.	Coordinate Geometry	06
3.	Introduction to Trigonometry	08
4.	Probability	06
5.	Triangles	07
6.	Mensuration (Surface areas & volumes of solids)	09
	Total	50

Schemes of Sections	Based on types of questions (MCQ, VSA, SA, LA_1, LA_2, LA_3).
Pattern of Options	Internal choice.

Estimated difficulty level:	Difficult	20	%marks
	Average	50	%marks
	Easy	30	%marks

Index of Abbreviations:

(E/LA: Essay/Long Answer; SA: Short Answer; VSA: Very Short Answer; O: Objective)



Grade 10.

Sharada.H.S.
Karnataka (KSEAB)

FORMAT OF BLUEPRINT (Subject other than language)

Subject : Mathematics
~~Unit~~/Paper :
Max Marks : 50
Class : 10
Time : 2hrs + 10mins (Read the QP)

S. No.	Objective → / Form of Questions / Content Unit/ Sub Unit	Knowledge E/LA	SA	VSA	O	Understanding E/LA	SA	VSA	O	Application E/LA	SA	VSA	O	Analysis E/LA	SA	VSA	O	Evaluation E/LA	SA	VSA	O	Creation E/LA	SA	VSA	O	Total Row Wise
1.	AP				1(1)	3(1)			1(1)	4(1)						1(1)	1(1)					3(1)				14
2.	COG					~~2(2)~~	2(1)	1(1)		~~3(1)~~																06
3.	Trigonometry				1(1)			1(1)		5(1)						1(1)										08
4.	Probability					4(1)						~~1(1)~~	~~1(1)~~			~~1(1)~~	1(1)									06
5.	Triangles			1(1)		3(1)					2(1)	~~1(1)~~	1(1)													07
6.	SA & V		2(1)											5(1)					2(1)							09
	Sub Total		2	1	2	10	2	2	1	12	2		1	5		3	2		2			3				Marks (QS)
	Total Column → Wise		b 5 (Marks Total)				b 15 (Marks Total)				b 15 (Marks Total)				b 10 (Marks Total)				b 2 (Marks Total)				b 3 (Marks Total)			a 50

Notes: Figures within brackets to indicate the number of questions and figures outside the brackets to indicate marks.
Denotes that marks have been combined to form one question.

For 2m→1
3m→2
4m→1

Summary:
Essay (E) LA_1+LA_2+LA_3 No 4+2+2 Marks 12+08+10 Pattern of Options Internal choice
Short Answer (SA) No 4 Marks 08
Very Short Answer (VSA) No 6 Marks 06 Scheme of Sections MCQ to Essay Type.
Objective (O) No 6 Marks 06

Steps: a, b, c, d, e, f, g, h, i, j

Format of Design (Subject other than language)
Question Paper/Test

Subject : सामाजिक विज्ञान
Unit/Paper : - सकल प्रश्न-पत्र
Class : X
Time : 150 मि०
Marks : 80

Weightage to Objective:

Objective	Knowledge	Understand	Application	Analyse	Evaluation	Creation	Total
Percentage of Marks	20%	40%	10%	10%	10%	10%	100
Marks	16	32	8	8	8	8	80

Weightage to form of question:

Forms of Questions	E/LA	SA1	SA2	VSA	O (MCQ)	Total
No. of Questions	04	04	—	10+10(MAP)	20	48
Marks allotted	24	16	—	20	20	80
Estimated time	4X12=48	4X8=32		20X2=40	20X2=40	150 मि०

Weightage to Major Content Areas:

S. No.	Unit/Sub-Units	Marks
1.	इतिहास - खण्ड- बस्तियों एवं प्रक्रियाएँ	08
2.	खण्ड-2,3 जीविका अर्थव्यवस्था समाज	
3.	रोजमर्रा की जिन्दगी, संस्कृति और राजनीति	10
4.	भूगोल - इकाई-1. संसाधन एवं विकास	
5.	वन्य एवं जीव संसाधन, जल संसाधन नीति	10
6.	इकाई-2- खनिज तथा ऊर्जा संसाधन	
7.	विनिर्माण उद्योग, राष्ट्रीय अर्थव्यवस्था	08
8.	लोकतांत्रिक राजनीति -	
9.	इकाई-1- सत्ता की साझेदारी, संघवाद	10
10.	इकाई - 2 राजनीतिक दल लोकतंत्र के परिणाम	07
11.	अर्थशास्त्र - इकाई-1 भारतीय अर्थव्यवस्था	10
12.	जैविक, सुरक्षा तथा मानव	
13.	इकाई - 2 - उपभोक्तावाद और धारणीय	07
14.	अर्थव्यवस्था उपभोक्तावादिता	
15.	मानचित्र कार्य	10
		80 अंक

Schemes of Sections	
Pattern of Options	

Estimated difficulty level:			
	Difficult	% marks	30%
	Average	% marks	40%
	Easy	% marks	30%

सा०वि० प० प्रयागराज
30 पु० 2

FORMAT OF BLUEPRINT (Subject other than language)

Subject : सामाजिक विज्ञान
Unit Paper: सकल प्रश्न-पत्र
Max marks : 80
Class : X
Time : 150 मि०

S.No.	Objective → / Form Of Question	Knowledge				Understanding				Application				Analysis				Evaluation				Creation				Total Row Wise			
	Content Unit/ Sub Unit	E/LA	SA	VSA	O	E/LA	SA	VSA	O	E/LA	SA	VSA	O	E/LA	SA	VSA	O	E/LA	SA	VSA	O	E/LA	SA	VSA	O	E/LA	SA	VSA	O
	इतिहास खण्ड-1	4(1)		1(2)	1(2)																					1	2	2	
	खण्ड-2, 3				1(2)				1(2)																				
	भूगोल - इकाई				1(1)			1(1)	1(1)			1(1)		6(1)		1(1)										1	1	3	
	इकाई - 2				1(1)		4(1)	1(1)	1(1)				1(1)					6(1)								1	2	2	
	नागरिकशास्त्र																												
	राजनीति - 1				1(1)			1(1)		6(1)												1(2)				1	1	3	
	इकाई - 2				1(1)		4(1)	1(1)	1(1)																	1	1	3	
	अर्थशास्त्र - I				1(1)			1(1)														6(1)		1(2)		1	1	2	
	इकाई - 2				1(1)		4(1)	1(1)									1(1)									1	1	3	
	मानचित्र							10(1)																		1	1	2	
	Sub Total	16				32				8				8				8				8				10 Marks (QS)			
	Total Column Wise →	b (Marks Total)				b (Marks Total)				b (Marks Total)				b (Marks Total)				b (Marks Total)				b (Marks Total)				a			

Note: Figures within brackets to indicate the number of questions and figures outside the brackets to indicate marks.
Denotes that marks have been combined to form one question.

Summary: Essay (E) No. 6 X 4 Marks 24 Pattern Of Option आन्तरिक विकल्प
Short Answer (SA) No. 4 X 4 Marks 16
Very Short Answer (VSA) No. 1 X 20 (बहुविकल्पीय) Marks 20 Scheme Of Section खण्ड 'अ' बहुविकल्पीय प्रश्न
Objective (O) No. 1 X 20 Marks 20
80
खण्ड - अति लघु, लघु, दीर्घ

नोट - बहुविकल्पीय प्रश्नों हेतु O.M.R. शीट विद्यार्थियों को उपलब्ध कराये जाते हैं।

Fomat of Design
Question Paper/Test

Subject : English (SL)
Class : 10
Time : 180 minutes
Marks : 80

Weightage to Objective :

Objective	Knowledg	Undesratnd	Application	Analyse	Evaluation	Creation	Total
Percentage of Marks	13.75	26.25	26.25	10	3.75	20	100
Marks	11	21	21	8	3	16	80

Weightage to form of Question :

Form of Question	E/LA	SA	VSA	O(MCQ)	TOTAL
No.Of Questions	4	32	1	21	58
Marks alloted	19	34	3	24	80
Estimated time	80	60	5	35	180

Weightage toMajor Content Areas :

S.No	Content Area	Mraks
1	Main Text	20
2	Supplimentary Reader	5
3	Unseen & Non Verbal	9
4	Function & Grammar	24
5	Writing	16
6	Vocabulary	6
Total		80

Scheme of section : Five Section (Ato E)
Pattern of Option : Internal

Estimated Difficulty level :	Difficult	13.75	% marks	
	Average	38.75	% marks	
	Easy	47.5	% marks	
Total		100		

Index Of Abbreviation :

E = Essay
SA = Short Answer
VSA = very Short Answer
LA = Long Answer
O = Objectives
MCQ = Multiple Choice Answer

Annexure 7: Templates

1. ASSESSMENT DESIGN (LANGUAGE)

Format of Design (Language Subjects)

Question Paper/Test

Subject:

Unit/Paper:

Class:

Time:

Marks;

Weightage to Objectives

Objective	Knowledge of language elements	Comprehension	Expression	Appreciation	Total
Percentage of Marks					
Marks					

Weightage to form of question:

Forms of Questions	E/LA	SA	VSA	O (MCQ)	Total
No. Of Questions					
Marks allotted					
Estimated time					

Weightage to Major Content Areas:

S.No.	Unit/Sub-Units	Marks
1.		
2.		
3.		
4.		
5.		
6.		
Total		

Schemes of Sections

Pattern of Options

Estimated difficulty level:	Difficult	%marks
	Moderate	%marks
	Easy	%marks

Index of Abbreviations:

(E/LA: Essay/Long Answer; SA: Short Answer; VSA: Very Short Answer; O: Objective)

2. ASSESSMENT DESIGN (OTHER SUBJECTS)

Format of Design (Subject other than language)

Question Paper/Test

Subject:

Unit/Paper:

Class:

Time:

Marks:

Weightage to Objective

Objective	Knowledge	Understand	Application	Analyse	Evaluation	Creation	Total
Percentage of Marks							
Marks							

Weightage to form of question:

Forms of Questions	E/LA	SA	VSA	O (MCQ)	Total
No. Of Questions					
Marks allotted					
Estimated time					

Weightage to Major Content Areas:

S. No.	Unit/Sub-Units	Marks
1.		
2.		
3.		

4.		
5.		
6.		
Total		

Schemes of Sections	
Pattern of Options	

Estimated difficulty level:	Difficult	%marks
	Average	%marks
	Easy	%marks

Index of Abbreviations:

(E/LA: Essay/Long Answer; SA: Short Answer; VSA: Very Short Answer; O: Objective)

3. BLUE PRINT (LANGUAGE)

FORMAT OF BLUEPRINT (Language)

Subject : _____ **Class** : _____

Unit/Paper: : _____ **Max Marks** : _____ **Time** : _____

S. No.	Objective → / Form of Questions / Content Unit/ Sub Unit	Elements of Language				Comprehension				Expression				Appreciation				Total Row Wise
		E	SA	VSA	O	E	SA	VSA	O	E	SA	VSA	O	E	SA	VSA	O	
	Sub Total																	**QS (Marks)**
	Total Column → / Wise	**(Marks Total)**				**(Marks Total)**				**(Marks Total)**				**(Marks Total)**				

Notes: **Figures within brackets to indicate the number of questions and figures outside the brackets to indicate marks.**
Denotes those marks have been combined to form one question.

Summary:

Essay (E)	**No.** _____	**Marks** _____	**Pattern of Options**	_____
Short Answer (SA)	**No.** _____	**Marks** _____		
Very Short Answer (VSA)	**No.** _____	**Marks** _____	**Scheme of Sections**	_____
Objective (O)	**No.** _____	**Marks** _____		

4. BLUE PRINT (OTHER SUBJECTS)

FORMAT OF BLUEPRINT (Subject other than language)

Subject : _____ **Class** : _____

Unit/Paper: : _____ **Max Marks** : _____ **Time** : _____

S. No.	Objective → / Form of Questions	Knowledge				Understanding				Application				Analysis				Evaluation				Creation				Total Row Wise
	Content Unit/ Sub Unit	E/LA	SA	VSA	O	E/LA	SA	VSA	O	E/LA	SA	VSA	O	E/LA	SA	VSA	O	E/LA	SA	VSA	O	E/LA	SA	VSA	O	
		d	j	j	j	d	i	i	i	d	h	g	f											e	e	c
		d	j	j	j	d	i	i		d	h	g	f											e	e	c
		d	j	j	j	d	i	i		d	h	g	f											e	e	c
		d	j	j	j	d	i	i		d	h	g	f											e	e	c
		d	j	j	j	d	i	i		d	h	g	f											e	e	c
		d	j	j	j	d	i	i		d	h	g	f											e	e	c
	Sub Total																									QS (Marks)
	Total Column → / Wise	b (Marks Total)				b (Marks Total)				b (Marks Total)				b (Marks Total)				b (Marks Total)				b (Marks Total)				a

Notes: Figures within brackets to indicate the number of questions and figures outside the brackets to indicate marks.
Denotes that marks have been combined to form one question.

Summary:

Essay (E)	No. _____	Marks _____	Pattern of Options	_____
Short Answer (SA)	No. _____	Marks _____		
Very Short Answer (VSA)	No. _____	Marks _____	Scheme of Sections	_____
Objective (O)	No. _____	Marks _____		

Steps: a, b, c, d, e, f, g, h, i, j

5. BLUE PRINT (OTHER SUBJECTS) BLANK

FORMAT OF BLUEPRINT (Subject other than language)

Subject : _____ **Class** : _____

Unit/Paper: : _____ **Max Marks** : _____ **Time** : _____

S. No.	Objective → / Form of Questions / Content Unit/ Sub Unit	Knowledge				Understanding				Application				Analysis				Evaluation				Creation				Total Row Wise
		E/LA	SA	VSA	O	E/LA	SA	VSA	O	E/LA	SA	VSA	O	E/LA	SA	VSA	O	E/LA	SA	VSA	O	E/LA	SA	VSA	O	
																										c
																										c
																										c
																										c
																										c
																										c
	Sub Total																									QS (Marks)
	Total Column → Wise	b (Marks Total)				b (Marks Total)				b (Marks Total)				b (Marks Total)				b (Marks Total)				b (Marks Total)				a

Notes: Figures within brackets to indicate the number of questions and figures outside the brackets to indicate marks.
Denotes that marks have been combined to form one question.

Summary:

Essay (E)	No. _____	Marks _____	Pattern of Options	_____
Short Answer (SA)	No. _____	Marks _____		
Very Short Answer (VSA)	No. _____	Marks _____	Scheme of Sections	_____
Objective (O)	No. _____	Marks _____		

Steps: a, b, c, d, e, f, g, h, i, j

6. QUESTION PAPERS ANALYSIS

Proforma for Analysing Question Papers

Part I: General Information

1. Name of the Board:
2. Name of Examination:
3. Year of Examination:
4. Class:
5. Subject:
6. Question Paper Number:
7. Maximum Marks:
8. Time Allotted:
9. Sections, if any:

Part -II (A): General Item General Analysis of Question of a Question Paper.

S.no.	Objective	Specification	Content	Unit/Sub-Unit No.	Form of Question	Marks Allotted	Estimated time (min)	Estimated Difficulty Level
1								
2								
3								
4								
5								
6								
7								
8								

7. HANDOUT TOOL

Ministry of Education
Government of India
सत्यमेव जयते

PARAKH
Performance Assessment, Review, and Analysis of Knowledge for Holistic Development

विद्यया ऽमृतमश्नुते
एन सी ई आर टी
NCERT

Techniques of Development of Blueprint

Follow the following steps for developing a blueprint:

Observe the enclosed blueprint based on a prescribed design for subject EVS class 6 for 100 marks.

Letters a, b, c, d, e, f, g, h, i, j, shown within certain squares are not thy part of the blueprint but these letters have been used to facilitate the paper setter to follow the steps in a sequence to prepare a blueprint in a systematic manner.

1. Insert total marks (100) shown in the design in the bottom right comer box (a)

2. Insert column wise (1-4) marks allotted to various assessment objectives in the bottom row of boxes (b)

3. Insert marks allotted to each unit (Ul - U8) row wise in the extreme right boxes (c)

4. Select appropriate units for essay type questions and enter i in relevant boxes depending upon the assessment objectives [see (d) under column 1 and column 2 against units U2, U4 and U6.]

   Three essay type questions of 10 marks each are allotted for unit 2,4 and 6. An inte1nal option in case of unit 6 has been provided and indicated by 'O' under column IE. Essay questions in unit 2 and 6 for testing knowledge while the 1 in unit 4 is for testing understanding objectives (column 2 E).

5. Select appropriate units for testing skill (drawing) objective and make entry under column 4 against relevant unit. In the present blue print diagrammatic questions have been provided in units 4,5 and 8 under column 4E and 4S in boxes (e).

6. Select appropriate units most amenable to framing of application based questions and make entries of MCQs (f) first followed by VSA Question (g) and short answer questions (h). (See under column 3, 0, VS and S in boxes f,g,h).

7. Now proceed unit wise across the objectives filling up boxes under knowledge (column 1) and understanding column (2) simultaneously with even distribution of MCQ, VS, SA questions against suitable content units. (see boxes i and j) without changing the row wise total marks shown against each unit under column 5."

8. Count the number of MCQ, VSQ, SAQ to verify whether the number tallies with the stipulated number in the design. In the present blue print MCQ = 20, VSQ = 10, SAQ=l0. If the total does not tally with the total of questions given in the design, make suitable adjustment between questions on knowledge and understanding objectives without disturbing entries made under application (column 3) and skill objective (column 4). The assumption is that it is not difficult to reconstruct or modify a knowledge based question into an understanding question and vice versa (see i under column 2 and under column l).

9. Make sub-totals and row wise and column wise to check whether weightages to different form of question (ET, SA, VSA, MCQ) are correctly tallying with unit wise weightages (Ul-U8) in each row and also objective wise under column 1-4 (40, 30, 20,10). Thereby making the total 100 both row wise and column wise.

10. Insert all entries (d - j) in the same manner indicating no of questions within brackets and marks for these questions outside the bracket.

    For example, 10(1), 4(1), 1(1), 2(2) indicate 10 marks 1 question, 4 marks 1 question, 1 mark 1 question and 2 marks for 2 questions (i.e.l mark for 1 question respectively).

11. Against unit 6 under column IE, double entry 10(1) and 10(1) has been made for an essay type question to be set. It means two parallel questions have been set providing option (o) for students to attempt one of them.

12. Under column 2 against unit 4 an essay type question testing understanding is to be set for 10 marks out of which 8 marks are shown in under E column-2 of understanding objective while 2 marks, are shown 2(-)* in the same row under E skill objective (Column 4) with a sign of asterik on it. This shows that this is the part of the same essay type questions 8(1) under column 2 testing understanding objective, but also testing skill objective in the form of a diagram expected as a part of that answer. This is why question no. is not indicated and a dash is placed in the bracket 2(-). So that questions remains 1 only as indicated under column 2 in sub-column E i.e 8(1)+2(-) = 10 (1).

    This is the only question in this blueprint that tests two objectives; all other questions are mono objective. Same thing can be possible in case of short answer questions if the paper setters so desires in certain cases.

    Say 4(1) could be split up into 2(1) +2(-) or 3(1) +1(-) to test K/U/A objectives carrying 3 or 2 marks while I or 2 marks can be reserved for testing skill of drawing. Under column 4, two questions (e) of 4 marts

4(1) against unit 5 and the second 4 (1) against unit 8 are given under short answer type (e). These are diagrammatic questions testing only drawing skill requiring the students to draw and label the diagram without writing any description.

13. Sometimes, knowledge and understanding or application questions can be combined together in·a question depending upon the purpose of question paper. But then this question should be put under the highest objective which it is testing.

14. When two or three separate sections are necessary, as in Biology paper or in social studies p per, separate weightage 50+50 or 40+30+30 to be reflected for different components like Botany and Zoology or History, Civics and Geography in the blue print dividing the questions proportionately in two or three parts in accordance with the allocation of section wise marks.

Ministry of Education
Government of India

PARAKH
Performance Assessment, Review, and Analysis of Knowledge for Holistic Development

Blue Print

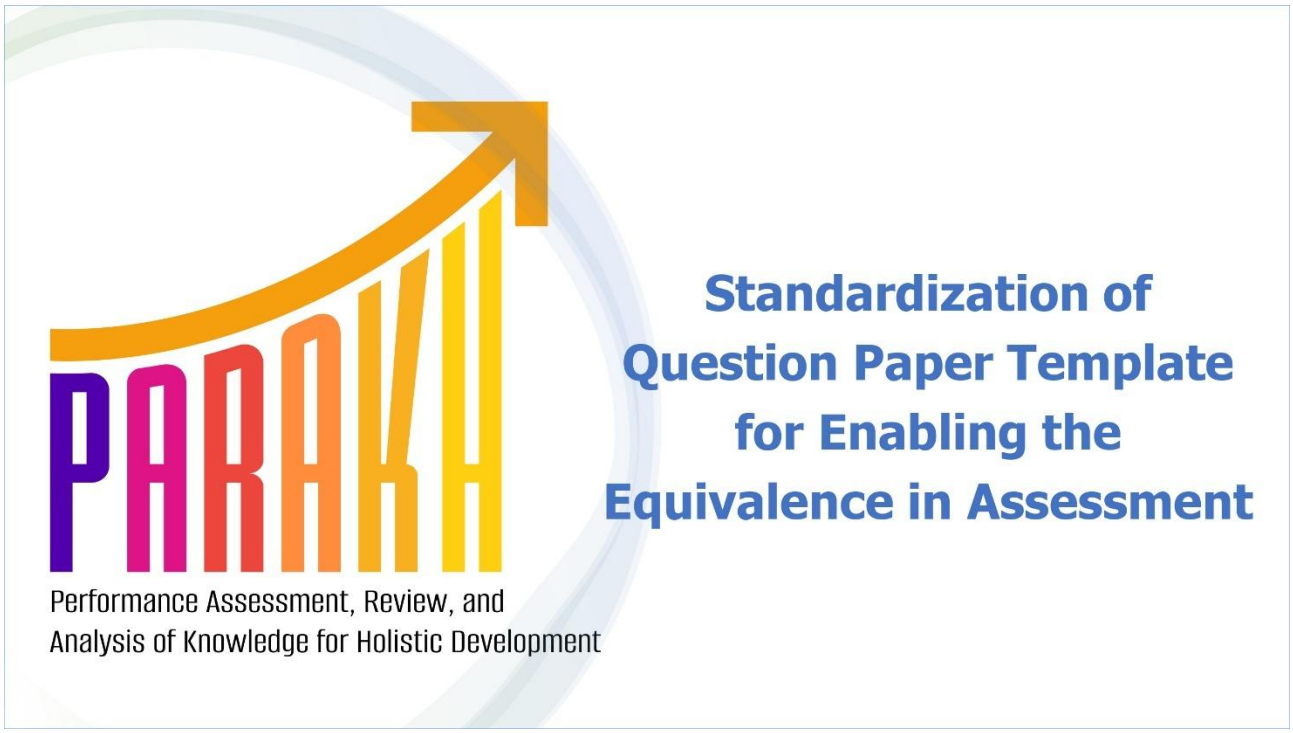
(Based on Prescribed Design)

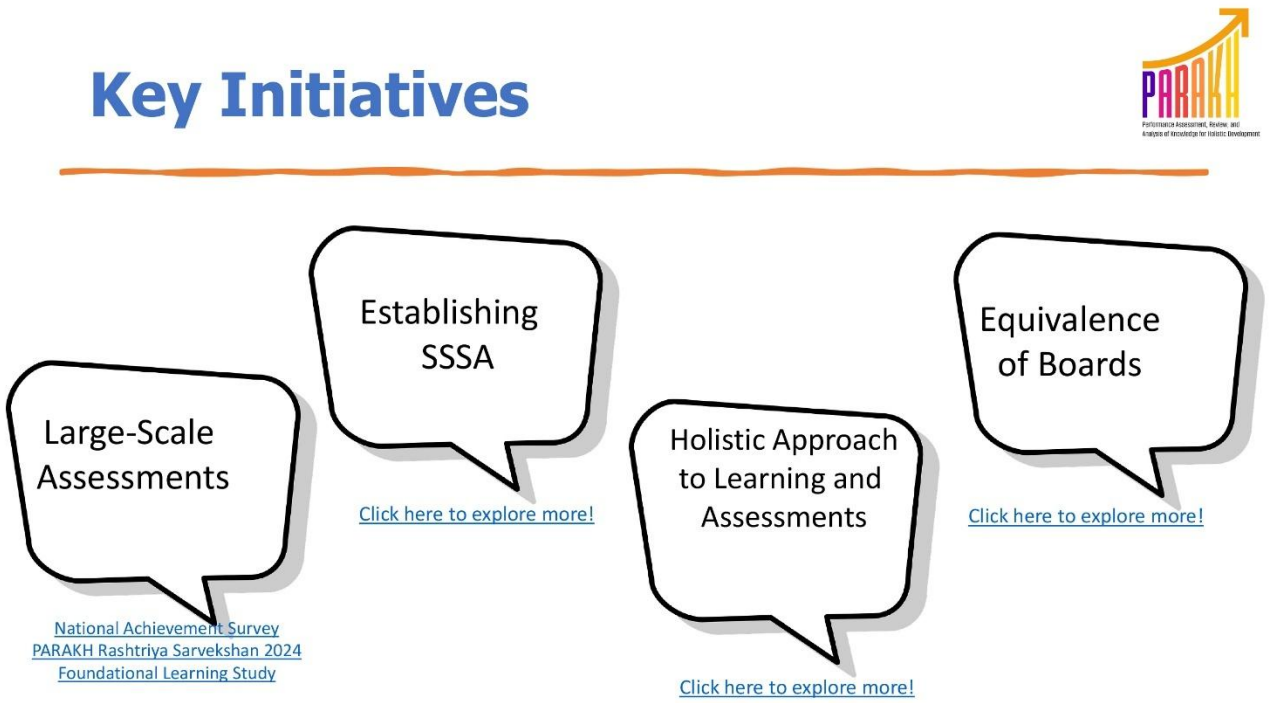
Subject : EVS
Total Marks : 100

Class : VI
Time : 3 hours

Assessment Objectives		Knowledge 1				Understanding 2				Application 3				Skill 4		5
Unit No.	Form of Questions / Major Units	E	S	VS	O	E	S	VS	O	E	S	VS	O	E	S	Row-wise Total
U-1	Looking at Maps			1 (1) j	1 (1) J			1 (1) i					1 (1) f			4 c
U-2	The Indian Ocean	10 (1) d			1 (1) j			1 (1) j								12 c
U-3	Our Physical Environment		4 (1) j		1 (1) J				1 (1) j			1 (1) g	1 (1) f			8 c
U-4	Water					8 (1) d	4 (1) j		1 (1) J		4 (1) h		1 (1) f	2* (–) c		20 c
U-5	Air				1 (1) J				1 (1) J		4 (1) h		2 (2) f		4 (2) e	12 c
U-6	Our People	10 (1) 10* (1) d	4 (1) j	1 (1) j	2 (2) j		4 (1) l	1 (1) l	1 (1) l			1 (1) g				24 c
U-7	Our Country			2 (2) J	2 (2) J		4 (1) l	1 (1) l	1 (1) l							10 c
U-8	Living Things								1 (1) j		4 (1) h		1 (1) f		4 (1) e	10 c
Sub Total Column-Wise		20 (2)	8 (2)	4 (4)	8 (8)	8 (1)	12 (3)	4 (4)	6 (6)	–	12 (3)	2 (2)	6 (6)	2 (–)	8 (2)	100 (43)
Total Column-Wise		40 b				30 b				20 B				10 b		100 a

Annexure 8: PPT





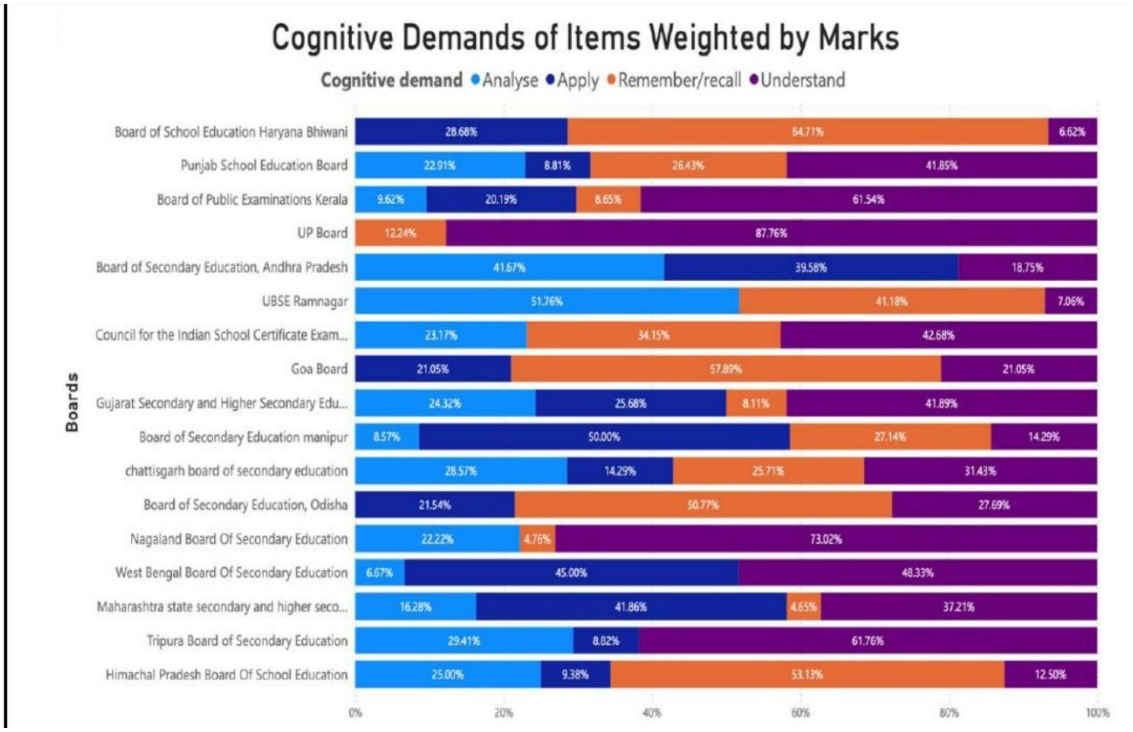
Let's Warm up!!

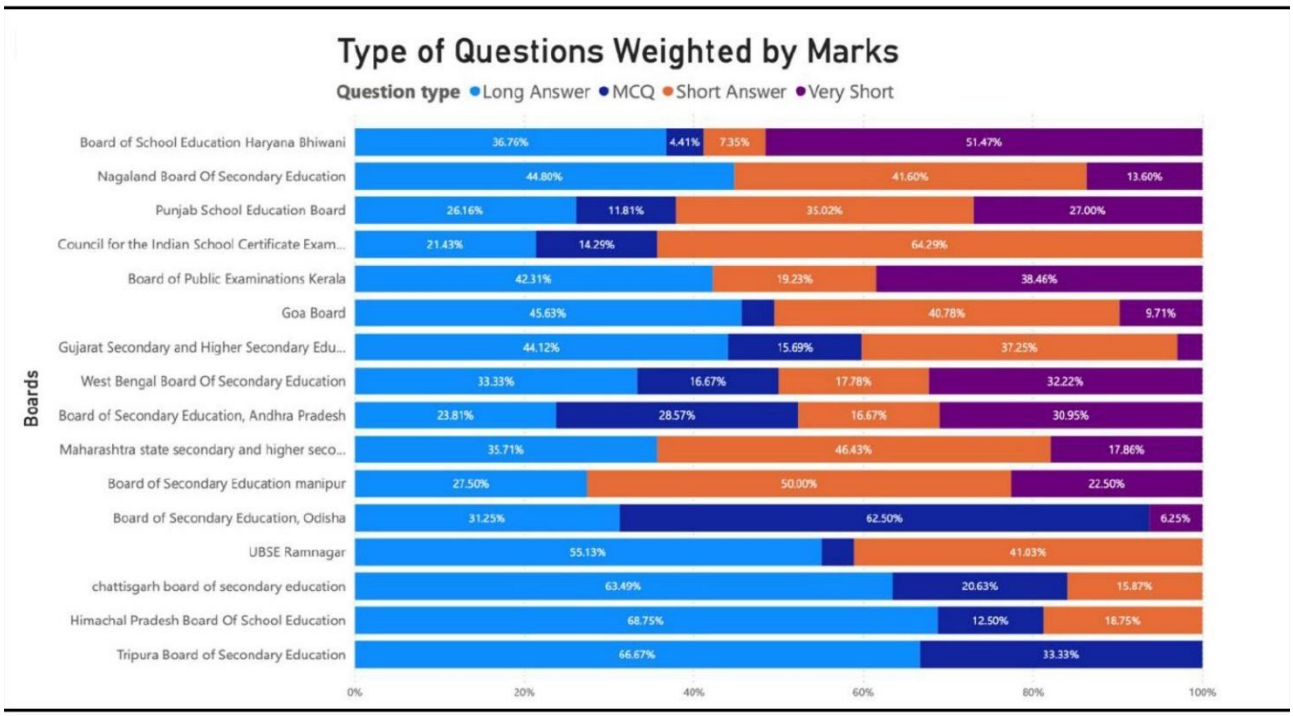
Why?

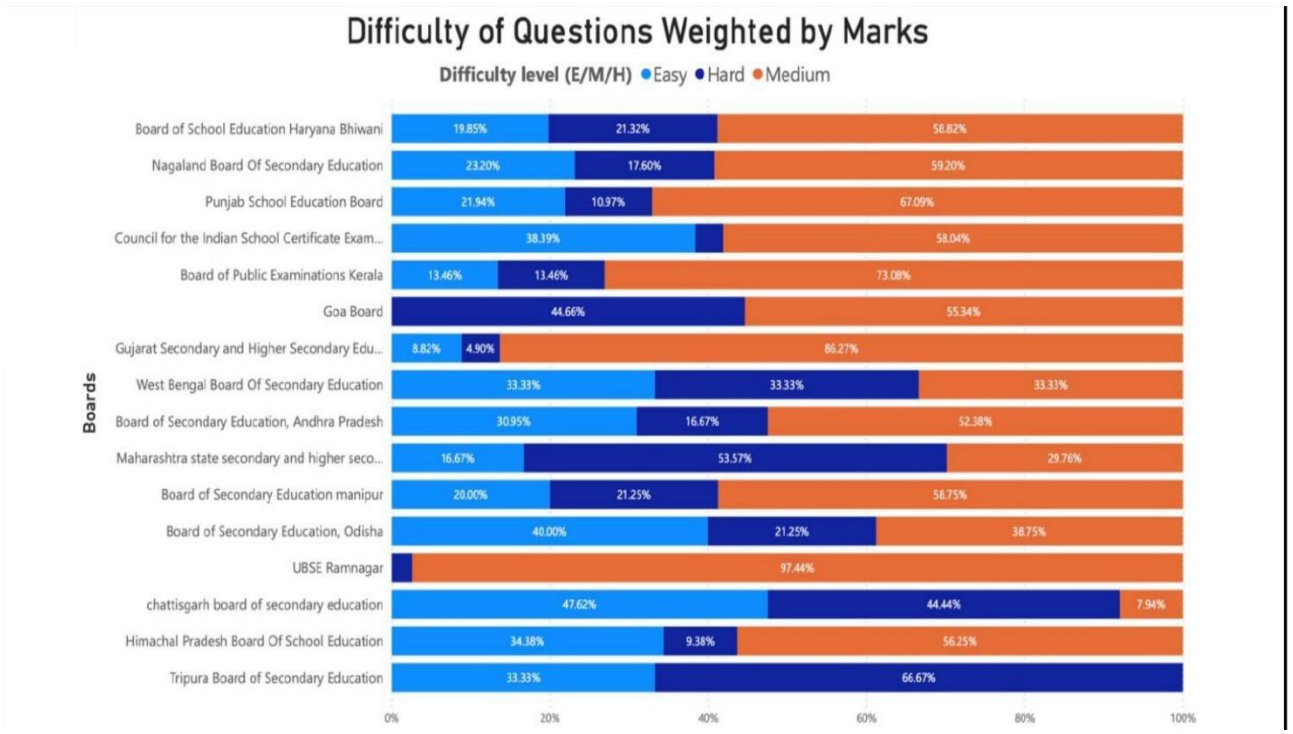
- NEP 2020 [Section 4.41] proposes establishing equivalence across school education boards to improve standards and promote educational equity.
- Equity in education cannot achieve the desired results without quality assessment system.

Results of the QPT Analysis

Ref: Establishing Equivalence Across Education Boards Report
(https://ncert.nic.in/parakh.php)




Type of Questions Weighted by Marks
Question type Long Answer MCQ Short Answer Very Short
Boards
Board of School Education Haryana Bhiwani 36.76% 4.41% 7.35% 51.47%
Nagaland Board Of Secondary Education 44.80% 41.60% 13.60%
Punjab School Education Board 26.16% 11.81% 35.02% 27.00%
Council for the Indian School Certificate Exam... 21.43% 14.29% 64.29%
Board of Public Examinations Kerala 42.31% 19.23% 38.46%
Goa Board 45.63% 40.78% 9.71%
Gujarat Secondary and Higher Secondary Edu... 44.12% 15.69% 37.25%
West Bengal Board Of Secondary Education 33.33% 16.67% 17.78% 32.22%
Board of Secondary Education, Andhra Pradesh 23.81% 28.57% 16.67% 30.95%
Maharashtra state secondary and higher seco... 35.71% 46.43% 17.86%
Board of Secondary Education manipur 27.50% 50.00% 22.50%
Board of Secondary Education, Odisha 31.25% 62.50% 6.25%
UBSE Ramnagar 55.13% 41.03%
chattisgarh board of secondary education 63.49% 20.63% 15.87%
Himachal Pradesh Board Of School Education 68.75% 12.50% 18.75%
Tripura Board of Secondary Education 66.67% 33.33%
0% 20% 40% 60% 80% 100%


Difficulty of Questions Weighted by Marks
Difficulty level (E/M/H) Easy Hard Medium
Boards
Board of School Education Haryana Bhiwani 19.85% 21.32% 58.82%
Nagaland Board Of Secondary Education 23.20% 17.60% 59.20%
Punjab School Education Board 21.94% 10.97% 67.09%
Council for the Indian School Certificate Exam... 38.39% 58.04%
Board of Public Examinations Kerala 13.46% 13.46% 73.08%
Goa Board 44.66% 55.34%
Gujarat Secondary and Higher Secondary Edu... 8.82% 4.90% 86.27%
West Bengal Board Of Secondary Education 33.33% 33.33% 33.33%
Board of Secondary Education, Andhra Pradesh 30.95% 16.67% 52.38%
Maharashtra state secondary and higher seco... 16.67% 53.57% 29.76%
Board of Secondary Education manipur 20.00% 21.25% 58.75%
Board of Secondary Education, Odisha 40.00% 21.25% 38.75%
UBSE Ramnagar 97.44%
chattisgarh board of secondary education 47.62% 44.44% 7.94%
Himachal Pradesh Board Of School Education 34.38% 9.38% 56.25%
Tripura Board of Secondary Education 33.33% 66.67%
0% 20% 40% 60% 80% 100%

Insights

There is a stark disparity in the following areas of the question papers used by different school boards in the country:

- **Inconsistent distribution of weightage in different cognitive demands** of the content.
- **Uneven distribution of marks** according to the **nature of the items**.
- **Lack of a logical scheme** in the distribution **of marks** across various **difficulty levels**.

What NEP 2020 says

- Establish a **National Assessment Centre**, **PARAKH**, tasked with setting common standards for assessment outcomes across all states and boards.
- Enable learners to shift from one board to the other without facing disadvantages due to differences in assessment systems.
- Restructure assessment methods to prioritize assessing conceptual understanding, critical thinking, and analytical abilities, and testing core competencies rather than rote memorization.
- A holistic, 360-degree, multi-dimensional report is recommended, reflecting learners' cognitive, affective, and psychomotor progress.

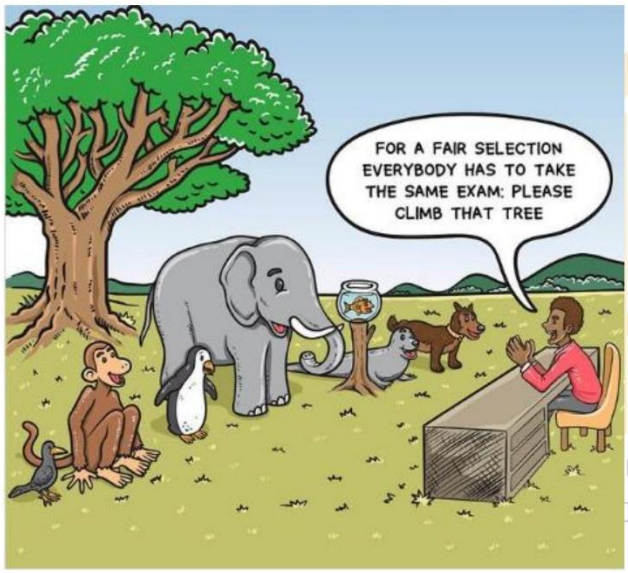
Definition of Evaluation/Assessment

"Evaluation is a systematic process of determining the extent to which educational objectives are achieved by the pupils." Tyler(1950)

"Evaluation is providing information for decision making." (Cronback, 1963; Sufflebeam, 1969; and Alkin, 1969)

Assessment is the "Process of estimating the status of pupil's development in different aspects of learning. It can be both qualitative or quantitative. In British literature assessment is used as synonymous to American term evaluation Nevo:1995"

Concept of Educational Assessment



"Everybody is a genius. But if you judge a fish by its ability to climb a tree, it will live its whole life believing that it is stupid."

- Albert Einstein

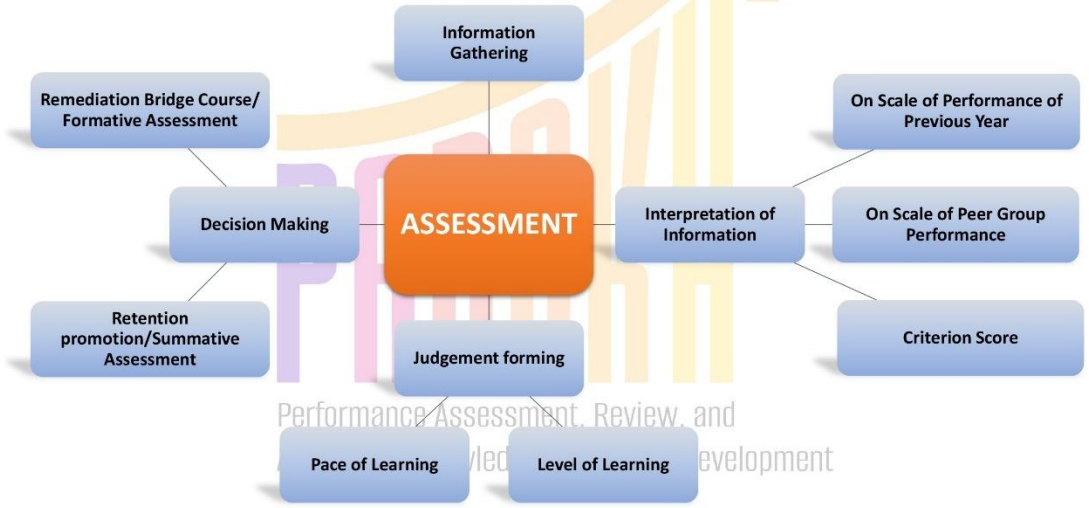
Assessment means

- Assessment is often confused with testing/measurement.
- Assessment is a comprehensive term which includes testing, measurement, also a qualitative description of pupil behaviour along with value judgment.

Assessment = Measurement + Value Judgement

- Thus, assessment goes beyond a simple quantitative Score.

Components of Assessment



Types of Assessment

- **Placement Assessment/Entry Behavior :** Placement evaluation identifies a child's prior knowledge to determine readiness for new learning, helping teachers address strengths and weaknesses to ensure effective instruction and competency development.
- **Formative Assessment :** Formative evaluation is a continuous process that provides feedback on student progress and teaching effectiveness, helping identify learning gaps for improvement through tests, assignments, and classroom activities.

Types of Assessment

- **Diagnostic Assessment :** Diagnostic evaluation identifies specific learning difficulties in areas like language and mathematics, enabling targeted remedial measures to improve learning outcomes.
- **Summative Assessment :** Summative evaluation assesses achievement at the end of a course for grading and certification but lacks diagnosis and remediation.

Performance Assessment, Review, and
Analysis of Knowledge for Holistic Development

What type of Assessment is your Boards Examination?

Board examinations are typically a form of Summative Assessment. They are conducted at the end of an academic term or year to evaluate a student's cumulative learning and performance. Summative assessments measure the knowledge and skills acquired over an extended period and are often used to determine qualifications for promotion, certification, or graduation.

Techniques and Tools of Assessment

- Different techniques and tools are used to evaluate different attributes of learners.

Techniques

- Written test
- Oral test
- Practical exercises
- Observation
- Interviews

Tools

- Question paper
- Quiz
- Practical test
- Anecdotal records
- Rating scales
- Checklist
- Assignments
- Project

Principles of Assessment

- Determining and clarifying what is to be assessed
- Selecting assessment techniques in terms of the purpose to be served
- Combining a variety of techniques for comprehensive assessment
- Knowing the strengths and limitations of various tools
- Assessment is a means to an end, not an end itself.

Characteristics of a Good Assessment Scheme

- It should be a continuous and comprehensive process.
- It should be a cooperative process.
- It should be a decision-making process.
- It should be an objective-based process.
- It should be reliable.
- It should be valid.
- It should be practicable.

Why Should Children Be Assessed?

- Since we are all concerned about children's learning, assessment needs to be undertaken for several reasons :
  - Support and improve your child's learning and development.
  - Observe what changes and progress take place over time.
  - Identify an individual's special needs and requirements.
  - Plan teaching-learning practices in a more suitable way.
  - Enhance the child's self-understanding and personal development.
  - Achieve curriculum aims/syllabi objectives.
  - Provide evidence of children's progress to communicate to parents and others.

Assessment as Envisioned in NCF-SE

- **Assessment of learning** refers to the measurement of learners' achievements.
- **Assessment for learning** involves gathering evidence of learners' progress to enhance the teaching-learning process.
- **Assessment as learning** encourages learners to take an active role in their learning.
- The study of **Equivalence of Board** provides insights into the need for a balanced and uniform design of assessment schemes.

Assessment at Different Stages: NCF-2023

FOUNDATIONAL STAGE:

- It should be a natural extension of learning- No burden.
- Explicit tests and examinations are completely inappropriate.
- Assessment should enable recording and documentation.
- Two important methods for the foundational stage- observation and analysing artefacts.
- Tools- checklists and rating scale.

PREPARATORY STAGE:

- A robust system of formative assessment.
- Should act as an instructional tool.
- Written tests to be introduced.
- The idea of competency should be taught to students.
- Portfolio, peer and self-assessment
- Comprehensive summative assessment of students
- Readiness to enter the middle stages
- Important tools used – observation, Anecdotal record, checklist, rating scale, assignment, unit test

MIDDLE STAGE:

- Competency-based, covering all dimensions of learning
- To test conceptual understanding, classroom assessment techniques, projects, debates, presentations, experiments, investigations, journals and portfolios should be used.

SECONDARY STAGE:

- Regular summative assessment
- Self-assessment will play a key role
- Comprehensive classroom assessment
- Summative assessment to contain case-based questions, simulations and essay-type questions
- Students to be prepared for Board examinations and other selection tests

Development of a Balanced Question Paper

Foundations of Paper Setting

The Content, structure, and function of the question paper are conditioned by the purpose, scope and focus of testing.

1. **Philosophical basis**:
- Understand the primary purpose of the exam before designing the paper.
- Align content with the intended goal (e.g., selection, achievement, promotion, or diagnostic testing).
- Purpose-driven structure ensures the test accurately measures the desired outcomes.

2. Sociological basis:
- Paper setting is a social construct as it aims to categorise students as deviants, underachievers, and high achievers.
- How to minimize gaps in the standards of performance.

Foundations of Paper Setting

3. Psychological basis:
- Provides healthy competition
- Diagnose learning difficulties
- Regulating appropriate difficulty level

4. Scientific basis:
- Validity
- Reliability
- Assessment objectives

5. Pedagogical basis:
- Positive impact on teaching-learning practices.

A Balanced Question Paper should

- Discourage rote learning
- Be objective based
- Have an adequate sampling of course content
- Contain all forms of questions
- Contain Questions testing all abilities
- Have no overall choice
- Contain more no. of question
- Provide adequate response time

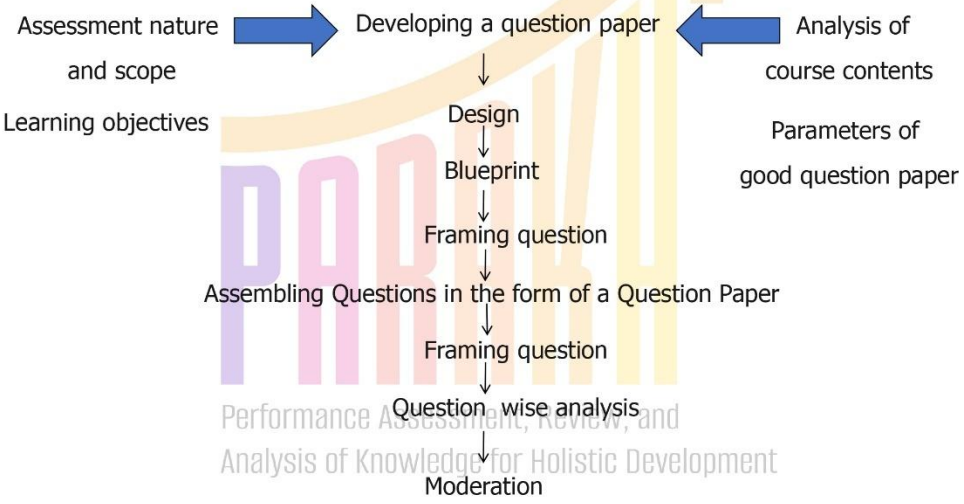
A Paper Setter Needs to be Oriented in

- Instructional objectives and their specifications.
- Rules for framing objectives-based questions of different forms.
- Theoretical foundations of the development of design and blueprint of question papers.
- Preparation of scoring keys and marking schemes.
- Overall analysis of the question Paper design and formation of questions (language, structure, content, etc.)

Steps to Develop a Balanced Question Paper

1. Preparation of a Design.
2. Preparation of a blueprint.
3. Writing of Questions.
4. Assembling Questions in the form of a Question Paper.
5. Preparing Scoring Key/Marking Scheme.
6. Carrying out Question-wise Analysis.
7. Moderation of a Question Paper

Question Paper Setting-An Overview



Design

The word 'Design' connotes all those decisions which are taken for the planning of a test paper. Such as;

Weightage to the

- Instructional objectives: k/U/A/Analysis/Eval/Create
- Form of questions: VSA/SA/E/O
- Content units, sub-units-weightage
- Difficulty level of question E/A/D (Easy/average /difficult)
- Scheme of

a. Options

b. Sections

Format of Design

Question Paper/Test

Subject:
Unit/Paper:
Class:
Time:
Marks:

Weightage to Objective

Objective	Knowledge	Understand	Application	Analyse	Evaluation	Creation	Total
Percentage of Marks							
Marks							

Weightage to form of question:

Forms of Questions	E/LA	SA	VSA	O (MCQ)	Total
No. Of Questions					
Marks allotted					
Estimated time					

Weightage to Major Content Areas:

S. No.	Unit/Sub-Units	Marks
1.		
2.		
3.		
4.		
5.		
6.		
Total		

Schemes of Sections	
Pattern of Options	

Estimated difficulty level:	Difficult	%marks
	Average	%marks
	Easy	%marks

Index of Abbreviations:

(E/LA: Essay/Long Answer; SA: Short Answer; VSA: Very Short Answer; O: Objective)

Blueprint

1. Transfer of decisions of design
2. Placement of
   a. Cognitive domains
   b. Nature of questions
3. Checking the weightage allotted to the questions
   a. Objectives
   b. Nature of Questions
   c. Estimated difficulty levels of Questions
4. Allotment of the serial number to questions

FORMAT OF BLUEPRINT

Subject : _____ Class : _____

Unit/Paper: : _____ Max Marks : _____ Time : _____

S. No.	Objective → / Form of Questions / Content Unit/ Sub Unit	Knowledge				Understanding				Application				Analysis				Evaluation				Creation				Total Row Wise
		E/LA	SA	VSA	O	E/LA	SA	VSA	O	E/LA	SA	VSA	O	E/LA	SA	VSA	O	E/LA	SA	VSA	O	E/LA	SA	VSA	O	
		d	j	j	j	d	i	i	i	d	h	g	f											e	e	c
		d	j	j	j	d	i	i		d	h	g	f											e	e	c
		d	j	j	j	d	i	i		d	h	g	f											e	e	c
		d	j	j	j	d	i	i		d	h	g	f											e	e	c
		d	j	j	j	d	i	i		d	h	g	f											e	e	c
		d	j	j	j	d	i	i		d	h	g	f											e	e	c
	Sub Total																									Marks (QS)
	Total Column → / Wise	b (Marks Total)				b (Marks Total)				b (Marks Total)				b (Marks Total)				b (Marks Total)				b (Marks Total)				a

Notes: Figures within brackets to indicate the number of questions and figures outside the brackets to indicate marks.
Denotes that marks have been combined to form one question.

Summary: Essay (E) No. _____ Marks _____ Pattern of Options _____

Short Answer (SA) No. _____ Marks _____

Very Short Answer (VSA) No. _____ Marks _____ Scheme of Sections _____

Objective (O) No. _____ Marks _____

Steps: a, b, c, d, e, f, g, h, i, j

Step 3: Writing of Questions

- Will discuss it later in detail (separate presentation is attached.)

Step 4: Preparation of Question Paper

- Write general instructions clearly so that the students get a clear idea about the magnitude of the task
- Assembling questions to a suitable criteria:
  - Form of questions,
  - Instructional objectives
  - Content units,
  - Difficulty level
  - According to the convenience of administration in the examinations

Step 5: Preparation of Marking Scheme

- Limit inter-examiner variability
- For subjective Questions: expected outline of answers should
  - complete and cover all possible major areas/points as desired by the paper-setter
  - indicate each expected point or its parts under the outlined major areas
  - Expectation of correct/partially correct answers
  - break up of marks for each expected point
  - Some marks may also be kept aside for such overall qualities of the answer, apart from the content

Step 6: Question Paper Analysis

- The question paper is set in conformity with the blueprint and design
- The degree of agreement between the prepared question paper and the design the paper-setter has to analyse once again each question concerning the objective it tests. the specific skills it measures, the unit to which it belongs, the type of the question, the length of the expected answer, the time taken by the average student to answer and its estimated difficulty level

Proforma for Analysing Question Papers

Part I: General Information

1. Name of the Board:	
2. Name of Examination:	
3. Year of Examination:	
4. Class:	
5. Subject:	
6. Question Paper Number:	
7. Maximum Marks:	
8. Time Allotted:	
9. Sections, if any:	

Part -II (A): General Item General Analysis of Question of a Question Paper.

S.No.	Objective	Specification	Content	Unit/Sub-Unit No.	Form of Question	Marks Allotted	Estimated time (min)	Estimated Difficulty Level
1								
2....								
total								

Step 7: Moderation

- For School-Based Examinations like term-end exams or summative exams, moderation could be done internally by subject teachers and senior teachers.
- However, Board exams have high stakes, requiring strict confidentiality and careful selection of external moderators. These moderators must:
    1. Be different from the paper setter.
    2. Have significant expertise in the subject.
    3. Be familiar with the syllabus and instructional goals.
    4. Be trained in paper-setting processes.
    5. Possess proven skills in item review.

Evaluation of Question Paper (Post Administration)

The quality of the measuring instrument (Question paper) depends upon 3 basic criteria

- Validity (Accuracy)
- Reliability (Dependability)
- Practicability (Usability)
- Objectivity(Justice)

1. Validity-

It refers to the extent to which a test measures what it intends to measure.

Types of validity

1. **Content validity**: adequate sampling of content;
2. **Curricular validity**: the degree to which it measures the instructional objectives;
3. **Empirical validity**: measures the relation between the test scores and the criteria scores;

Out of the above, content and curricular validity that matter most in an academic examination.

To ensure the reasonable validity of a question paper:

1. Assessment objectives are pinpointed.
2. Proportional weightage is given to each assessment objective.
3. The examination syllabus is divided into content units of testing with weights.
4. Questions are based on each content unit.
5. Internal / Alternate / Equivalent options and in long answer type questions only.

2. Reliability

It means how accurately and consistently it measures achievement from time to time.

A test will be reliable if:

1. Items used have proportional distribution in content.
2. Items have a good range of difficulty levels.
3. Items are of multiple-choice type
4. Items include higher-level abilities and not based on memory only;
5. The test is lying i.e more number questions are included;
6. Range of ability of the population sample is wide i.e. sample is heterogeneous;

3. Practicability

The practicability of the test may be taken care of by:

1. Making the format of the question paper functional.
2. Making it time effective in terms of several questions included.
3. Use only those varieties of questions that are familiar to examinees.
4. Minimizing the choice of malpractices through in-built mechanisms.
5. Including adequate instructions, mechanism of distribution and collection of papers, time frame etc for smooth conduct of examination.

4. Objectivity (Justice)

The examinee should get the marks he deserves.

Framing Questions

Different Forms of Questions

Quality of a Good Question (1/5)

A good question should conform to the following characteristics

I. Test the desired objectives effectively.

- The question should test the ability that it is expected to test.
- A question may sometimes test more than one objective (competency).
- Testing Single objective should be encouraged.

II. Content Coverage

- The question should attempt to test the topic or sub-topic effectively, it is meant to test.

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Quality of a Good Question (2/5)

III.Form of question

The choice of the form of the question depends considerably on

1. The ability to be tested.
2. Content desired to be tested.
3. Time provided for testing.

For example, essay-type questions are more suited for testing abilities like organization of thoughts, interpretation of facts and evidence and also for offering critical comments.

IV.Language/Wording of question:

- The question should be framed using clear, precise and unambiguous language (Wording) to bring objectivity to the interpretation of the requirements of a question.
- It should be within the effortless comprehension of students.
- By and large all students should make the same meaning out of it.
- Appropriate directional phrases should be used.

Quality of a Good Question (3/5)

V. Structuring the Situation

The selection of the most appropriate testing situation is an important step in framing the question.

These should be selected in keeping with the **general awareness and ability** of the students

VI. Difficulty level:

The difficulty level of the question usually depends upon:

- The degree of complexity of the mental processes involved.
- The area or aspect of the content desired to be tested.
- Time available for answering it.

The difficulty level of the question should be commensurate with the achievement and ability levels of pupils for whom the question is meant.

The actual difficulty index, of course, is obtained only after the question is administered.

Quality of a Good Question (4/5)

VII. Discriminating Value:

- The question should discriminate between the achievement level of learners
- Very easy or difficult questions cannot gauge such discrimination.

VIII. Delimitation of the scope of the expected answer:

Questions should be specific and precise in length so that the scope and the length of the expected answers are clearly delimited and defined.

IX. Key/Marking Scheme:

The key for the objective type questions.

Marking Scheme for essay-type questions.

Weightage to each (value) point of the expected answer in terms of marks be mentioned.

For very short answer-type questions, the actual word phrase or sentence expected in an answer should be indicated in the marking scheme.

Quality of a Good Question (5/5)

X. Translatability:

- The wording of the question, therefore, should be such that it lends itself to translation without affecting the item or the difficulty level.

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Type of Questions

Supply Type/Constructed Response Type

- Essay Type/Long Answer (LA)
- Short Answer (SA)
- Very Short Answer (VSA)
- Fill in the Blanks/One word, etc.

Selection Type

- Alternative Response Type
- Matching Type
- Multiple Choice Type

Advantages of Essay Type Questions

- Many abilities may not be tested through any other form of questions but can be tested by only Essay type questions
- To defend one's viewpoint through facts, data, and suitable arguments.
- No Chance of guessing, required to produce their answer.
- It measures the higher mental ability to think, integrate, interpret, organise, and express knowledge effectively
- An Indigenous/original approach to solving a given problem

Limitations of Essay-Type Questions

- Limited sampling of course content and objectives that affects the reliability and hence the validity of essay tests.
- Subjectivity in scoring
- "Halo effect" along with hand-writing, and spelling-mistake affects scoring.
- Judging the answer and scoring is a time-consuming & tiring process
- Lengthy illustrations/repetitious statements to bluff the examiner

Constructing Essay-type Question

- Phrase the item to achieve maximum clarity, understanding, and scope of the answer is clear.
- Alignment with instructional objectives to achieve maximum content validity.
- Inform students about the scheme of value points.
- Overall options should be avoided, instead, if necessary, use internal choices
- Keywords to be used: "Discuss", "Explain", "Evaluate", etc.
- These may have two formats- 1-Question form 2 - Statement form

Examples:

- What is communalism? Is it a threat to Indian democracy? Give three arguments to support your views. (1+1+3)
- Define Democracy. Give two merits and two demerits of democracy.(1+2+2)

Constructing Essay-type Question

Enhance scoring reliability:

- Prepare model answers that may provide a standard to compare all answers for evaluation
- Specify the factors to consider in evaluating response, e.g. credit for organising information, expression, data facts, etc.
- Scoring a single question in all the papers at a time
  - Increases scoring efficiency due to focus on one question at a time and facilitates more accurate evaluation
- Scoring should be free from the Halo effect, which leads to unbiased evaluation
- Unless any of the objectives is to measure the quality of handwriting, should not allowed to influence the score.

Short Answer Questions

Short answer questions bridge the gap between objective and essay questions. They offer the advantages of both without the disadvantages if framed properly, providing a balanced approach to assessment.

Short Answer Questions

1. **Word Count**
   Answers typically range from 50-60 words.
2. **Line Count**
   Answers may consist of 2 to 6 lines.
3. **Credit Points**
   Questions may be worth 2 to 4 value points.
4. **Time Limit**
   Students should be able to answer in 3 to 5 minutes.

Advantages of Short Answer Questions

1. **Versatility**
   Suitable for both external and internal examinations.
2. **Comprehensive Assessment**
   Can test a wide range of learning objectives.
3. **Skill Development**
   Encourages students to organize and select relevant information.
4. **Objectivity and Reliability**
   Can be scored more objectively than essay questions.
   Helps in covering more syllabi, and can put more no. of questions in view of the essay-type question.

Constructing Short Answer Questions

1. **Identify the Ability**
   Determine the specific skill to be tested, such as understanding, comparison, or explanation.
2. **Focus and Specificity**
   Avoid broad questions; ensure the question has a clear and specific task.
3. **Clarity and Precision**
   Frame questions with definite answers, using precise language and directional words.
4. **Breakdown Complex Topics**
   Break down complex topics into multiple short answer questions.

Types of Short Answer Questions

Question Form	Why is it that Iceland and Tasmania celebrate their Christmas in different seasons?
Statement Form	Give two differences which occur between rocks and minerals.
Give Reason	Why do metal surfaces feel colder than wooden surfaces on a cold winter day, even if both are at the same temperature?
Cause-effect	Explain how deforestation can lead to an increase in carbon dioxide levels in the atmosphere.
Analyses	Person 'A' purchases an electric iron which has an ISI mark and person 'B' purchases an electric iron without an ISI mark. In your opinion, who is correct and why.

Very Short Answer Questions

- Have one specific testing point and can be marked quite objectively.
- More content can be tested through these questions and more reliability and validity can be ensured by this item.
- It helps in testing knowledge of the examinee by asking him to supply a word, phrase, or a figure or a sentence which is required to answer a question.
- The range of marks is half to one-mark and it may take one to two minutes to answer.
- These can be answered in one word or one sentence.

Advantages of Very Short Answer Questions

Factual Information
Primarily test factual knowledge, the foundation of learning.

Ease of Construction
Relatively simple to write and score.

Reduced Guessing
Less susceptible to guessing than true/false or multiple-choice questions.

Vocabulary Testing
Popular for testing vocabulary in subjects like language, geography, and science.

Constructing Very Short Answer Questions

1. **Single and Unique Answer**
   Word the question carefully to elicit a single, specific answer.
2. **Intended Answer**
   Consider the intended answer before writing the question.
3. **Placement of Blank**
   If using an incomplete sentence, place the blank in the middle.
4. **Direct Questions**
   Use direct questions unless an incomplete sentence is more concise.
5. **Avoid Clues**
   Prevent unintended clues to the correct answer.

Types of Very Short Answer Questions

1. **Completion Type**
   I was so worried...
2. **Analogy Type**
   Lime stone: Marble, Coal...
3. **Location Type**
   Show on the map - Dharmshala, H.P.
4. **Transformation Type**
   This is used only in language testing. Reported speech, voices, synthesis, transformation of sentences, etc. can be tested through these types of questions.
5. **Usage Type**
   Use the following words and phrases in your own sentences: Break, break-up, look, look after.
6. **Question Form**
   What is a mole?
7. **Context Dependent**
   Pictorial and Interpretive type

7-i **Pictorial Type**
What are the occupations of the following:

Persons	Occupation

7-ii **Interpretive Type**
Directions: Read the bus timetable given here and answer the questions that follow.

Selection-type Questions

- **Alternative Response Type**
  - True/False
  - Yes/No
- **Multiple-Choice Type**
  - Question Form
  - Incomplete Statement
- **Matching Type**
  - Single
  - Double
  - Matrix
  - Fill in the blanks

Selection Type Questions

Objective Type

Objective type questions have only one correct answer which the student has to choose out of the given choices.

Ease of Scoring

- Scoring is done mechanically, making them popular for large-scale assessments.
- No variability in scoring

Time and Effort

While easy to score, objective type questions require considerable time and effort to prepare.

Criticism

- Objective type questions are sometimes criticized for not requiring higher mental abilities, but they can be framed for any level of difficulty.
- Answer can be guessed.

Advantages of True/False Questions

Easy to Construct

True/False questions are relatively easy to construct and require less time and effort compared to other question types.

Easy to Score

Scoring True/False questions is straightforward and can be done quickly, making them efficient for large-scale assessments.

Suitable for Basic Concepts

True/False questions are effective for testing basic knowledge and understanding of fundamental concepts.

Disadvantages of True/False Questions

1 **Guessing**

The main disadvantage of True/False items is that there is a 50 per cent chance of guessing, therefore even poor students may score 50 per cent just by chance.

2 **Limited Scope**

True/False questions are often limited in their ability to assess complex understanding or higher-order thinking skills.

3 **Ambiguity**

Sometimes, a statement can be interpreted in multiple ways, leading to confusion for students and making it difficult to determine the correct answer.

Matching Type Questions

Single Matching

In this type of question two columns are used. In the left column, stimuli are presented, and in the right column, responses. Students are asked to match the response with a given stimulus.

Multiple Matching

In multiple matching, students need to match multiple responses to a single stimulus or vice versa. This type of question requires a deeper understanding of the relationships between concepts.

Advantages and Disadvantages of Matching-Type Questions

- **Advantages**
  - Content area coverage
  - Reduces reading and response time
  - Provide objective measurement of learning
  - Scoring is easy and can be done efficiently and accurately. Increased reliability of a tool

- **Disadvantages**
  - Questions are difficult to construct due to the selection of a common set of stimuli and response
  - Limited scope to measure higher cognitive domain

Multiple Choice Questions

Versatile
Multiple choice questions can be used to test a wide range of learning outcomes, from basic knowledge to higher-order thinking skills.

Objective Scoring
Scoring multiple choice questions is objective and reliable, reducing the risk of subjective bias.

Time Efficient
Multiple choice questions are relatively quick to answer, allowing for a wider range of content to be covered in a limited time.

Diagnostic Value
Multiple choice questions can provide valuable insights into student understanding and identify areas where further instruction is needed.

Advantages of Multiple-Choice Questions

- It can measure a variety of learning outcomes effectively.
- It can be adapted to wide range of content areas.
- It may be used to measure learning outcomes in several content areas where solutions to problems are not clearly true or false but vary in degree of appropriateness.
- The reliability per item is greater than true-false item due to increased number of alternatives because the chance: for guessing the correct answer is reduced proportionally.
- By placing correct answer at different positions in different questions the students are not permitted to adopt any response pattern blindly.
- The use of a number of plausible alternatives make the results amenable for the purposes of diagnosis.

Limitations of Multiple-Choice Questions

1. **Limited Depth**
   Multiple-choice questions may not be suitable for assessing complex problem-solving skills or the ability to express ideas in a comprehensive manner.

2. **Difficulty in Creating Distractors**
   Developing plausible and effective distractors can be challenging, requiring careful consideration of common misconceptions and alternative interpretations.

3. **Guessing**
   While the chance of guessing correctly is reduced compared to True/False questions, there is still a possibility of students guessing the right answer.

Construction of MCQs

- The multiple-choice type of questions are the most commonly used objective-type questions.
- A multiple-choice question has the following parts :
  - Stimulus
  - Stem
  - Alternatives/distracters
  - Key

Alternatives

The alternatives/distracters have to satisfy some basic conditions as are below :

- Alternatives have to be homogenous – if it is a question of the properties of gases, all of them should be properties. If it is a question related to countries, the distractor should have the names of the countries only
- The distractor should invariably be of the same physical length.
- None of the distractors should provide any clue about the correct alternative.
- The alternative should be in the same form (in the same tense, same number same gender etc.)
- The alternative should be plausible (that could be mistaken as possible answers)

Alternatives

The alternatives/distracters have to satisfy some basic conditions as are below :

- The alternative should appropriately and with grammatical accuracy form correct sentences with a completion type of a stem.
- In the sequential placement of the alternatives, the alternative to be selected should change places from questions to questions. The alternative should present one and only one correct answer.
- The alternatives should present just one and only one correct answer which is called the "**Key**"

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Key

- MCQs require a student to select one of the alternatives as a correct response.
- This correct response is called the Key.
- The testing situation in MCQs may require the students to select :
  - -the only correct alternative.
  - -the only wrong alternative.
  - -the most appropriate or best alternative.

Sr. No.	FORM / ASPECTS	ESSAY TYPE	SHORT ANSWER TYPE	VERY SHORT ANSWER TYPE	OBJECTIVE TYPE
1.	**Objectives tested**	Can be used for testing all objectives. Are more appropriate for testing certain higher objectives	Can be used equally effectively for testing all objectives	Can test all objectives which are testable through objective type questions.	Cannot be used for testing expression, the ability to organise and skills etc.
2.	**Content coverage**	Result in a very poor sampling of content	Helps in increasing the sample of content	Helps improve the sample of the content.	The use of a large number of items results in a broader coverage which makes representative sampling possible.
3.	**Subjectivity of scoring**	There is a lot of subjectivity in scoring	Subjective scoring is controlled.	Scoring can be almost as objective as in objective type questions.	No subjectivity of scoring.
4.	**Ease of scoring**	Very difficult to score	Comparatively easy to score	Very easy to score	Extremely easy to score.
5.	**Ease of preparation**	Very easy to prepare	Moderately easy to prepare	Quite easy to prepare	Difficult to prepare.
6.	**Bluffing in**	Quite possible	Limited	Not possible	Not at all
7.	**Halo effect**	predominant	Controlled	Completely Controlled	Impossible
8.	**Guessing**	Not possible	Very little	Very little	Quite possible


ಧನ್ಯವಾದ
ಗಳು
நன்றி
धन्यवाद
આભાર
Thank You
ধন্যবাদ
ధన్యవాదాలు
दिनवास
Sabaikor
شکریہ
ਧੰਨਵਾਦ
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**********END**********