## CBSE CIRCULAR 2023-24

केन्द्रीय माध्यमिक शिक्षा बोर्ड
' शिक्षा मंत्रालय भारत सरकार के अधीन एक स्वायत्त संगठन CENTRAL BOARD OF SECONDARY EDUCATION
(An Autonomous Organisation Under the Ministry of Education, Govt. of India) अमृत महोत्सव


## All Heads of Institutions affiliated to CBSE

## Subject: Assessment and Evaluation Practices of the Board for the Session 2023-24

The National Education Policy, 2020 has affirmed the need to move from rote learning to learning more focused on developing the creative and critical thinking capacities of students to meet the challenges of the 21st century proactively. Accordingly, the Board has taken multiple steps towards implementation of Competency Focused Education in schools, ranging from aligning assessment to competencies, development of exemplar resources for teachers and students as well as continuous capacity building of teachers etc.
The Board has released guidelines vide Circular No. Acad- 05/2019 dated 18.01.2019; Circular No. Acad-11/2019 dated 06.03.2019; Circular No. Acad-18/2020 dated 16.03.2020; and Circular No.Acad-57/2022 dated 20.05.2022 to progressively align assessment to the vision of the NEP by including more competency-based questions in the Class X and XII Board examinations.
In continuation to these circulars, the Board is initiating further corresponding changes in the Examination and Assessment practices for the academic session 2023-24 to align assessment to Competency Focused Education. Therefore, in the forthcoming session a greater number of Competency Based Questions or questions that assess application of concepts in real-life situations will be part of the question paper.
The changes for classes IX-XII (2023-24) year-end Board Examinations are as under:



Curriculum document released by the Board for the Academic Session 2023-24 and the Sample Question Papers may also be referred to for details of the QP design of individual subjects. Learning frameworks for various subjects for classes IX-XII are now available at the https://cbseacademic.nic.in for reference.

(Dr. Joseph Emmanuel)
Director (Academics)

'शिक्षा सदन', 17 राऊज़ एवेन्यू, इंस्टीटूशनल एरिया, नई दिल्ली-110002
'Shiksha Sadan', 17, Rouse Avenue, Institutional Area, New Delhi - 110002

फोन/Telephone: 011-23212603 वेबसाइट/Website:http://cbseacademic.nic.in मेल/e-mail: directoracad.cbse@nic.in.

## CBSE CIRCULAR 2023-24

## केन्द्रीय माध्यमिक शिक्षा बोर्ड

(शिक्षा मंत्रालय भारत सरकार के अधीन एक स्वायत्त संगठन) CENTRAL BOARD OF SECONDARY EDUCATION
(An Autonomous Organisation Under the Ministry of Education, Govt. of India)
F.1001/CBSE-Acad/Curriculum/2023

March 31, 2023
Cir No: Acad-39/2023

## All Heads of Institutions affiliated to CBSE

Subject : Secondary and Senior School Curriculum and Sample Question Papers for the session 2023-24

1. CBSE annually provides the curriculum for classes IX to XII containing academic content, syllabus for examinations with learning outcomes, pedagogical practices, and assessment guidelines.
2. It is important that schools ensure curriculum transactions as per the directions given in the initial pages of the Curriculum document. The subjects should be taught as per the curriculum given by suitably incorporating strategies such as Art-Integrated Education, Experiential Learning, Pedagogical Plans, etc. wherever possible.
3. As CBSE has adopted National Curriculum Framework for Foundational Stage - 2022, schools offering foundational or preparatory education are advised to adhere to the recommendations regarding curriculum, pedagogy, assessment, and other areas described in detail in the NCFFS-2022 and guidelines of the Board issued from time to time.
4. Sample Question Papers with detailed designs of the Question Paper are also available on CBSE's website to reflect the impact of changes made in the curriculum. SQPs also provide students with an idea of the exam pattern and the type of questions that may be asked in the actual examination in order to ensure transparency and reduce stress. Students will also get a clear understanding of the weightage of different topics and the marking scheme to be followed by going through these Sample Question Papers.
Schools are requested to share the Curriculum and Sample Question Papers available on www.cbseacademic nic.in at the given links, with all students and teachers -

- Secondary \& Senior Secondary School Curriculum -
https://cbseacademic.nic.in/curriculum 2024.html
- Sample Question Papers - Secondary -
https://cbseacademic.nic.in/SQP CLASSX 2023-24.html
- Sample Question Papers - Senior Secondary https://cbseacademic.nic.in/SOP CLASSXII 2023-24.html
‘शिक्षा सदन’, 17 राऊज़ एवेन्यू इंस्टीटूशनल एरिया, नई दिल्ली-110002 'Shiksha Sadan', 17, Rouse Avenue, Institutional Area, New Delhi - 110002

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## Syllabus

## Latest Syllabus 2023-24 <br> (Issued by CBSE on $31^{\text {st }}$ March 2023) <br> MATHEMATICS STANDARD-(Code No. 041) <br> Class-X-(Theory)

| Unit No. | Unit Name | Marks |
| :---: | :--- | :---: |
| I | Number Systems | 06 |
| II | Algebra | 20 |
| III | Coordinate Geometry | 06 |
| IV | Geometry | 15 |
| V | Trigonometry | 12 |
| VI | Mensuration | 10 |
| VII | Statistics \& Probability | 11 |
|  | Total | 80 |

## UNIT I: NUMBER SYSTEMS

## 1. REAL NUMBERS

(15) Periods

Fundamental Theorem of Arithmetic - statements after reviewing work done earlier and after illustrating and motivating through examples, Proofs of irrationality of $\sqrt{2}, \sqrt{3}, \sqrt{5}$.

## UNIT II: ALGEBRA

## 1. POLYNOMIALS

(8) Periods

Zeros of a polynomial. Relationship between zeros and coefficients of quadratic polynomials.
2. PAIR OF LINEAR EQUATIONS IN TWO VARIABLES
(15) Periods

Pair of linear equations in two variables and graphical method of their solution, consistency/ inconsistency.
Algebraic conditions for number of solutions. Solution of a pair of linear equations in two variables algebraically - by substitution, by elimination. Simple situational problems.
3. QUADRATIC EQUATIONS
(15) Periods

Standard form of a quadratic equation $a x^{2}+b x+c=0,(a \neq 0)$. Solutions of quadratic equations (only real roots) by factorization, and by using quadratic formula. Relationship between discriminant and nature of roots.
Situational problems based on quadratic equations related to day to day activities to be incorporated.
4. ARITHMETIC PROGRESSIONS
(10) Periods

Motivation for studying Arithmetic Progression. Derivation of the $n^{\text {th }}$ term and sum of the first $n$ terms of A.P. and their application in solving daily life problems.

## UNIT III: COORDINATE GEOMETRY

1. COORDINATE GEOMETRY
(15) Periods

Review : Concepts of coordinate geometry, graphs of linear equations. Distance formula. Section formula (internal division).

## Syllabus

## UNIT IV: GEOMETRY

## 1. TRIANGLES

(15) Periods

Definitions, examples, counter examples of similar triangles.

1. (Prove) If a line is drawn parallel to one side of a triangle to intersect the other two sides in distinct points, the other two sides are divided in the same ratio.
2. (Motivate) If a line divides two sides of a triangle in the same ratio, the line is parallel to the third side.
3. (Motivate) If in two triangles, the corresponding angles are equal, their corresponding sides are proportional and the triangles are similar.
4. (Motivate) If the corresponding sides of two triangles are proportional, their corresponding angles are equal and the two triangles are similar.
5. (Motivate) If one angle of a triangle is equal to one angle of another triangle and the sides including these angles are proportional, the two triangles are similar.
6. CIRCLES
(10) Periods

Tangent to a circle at, point of contact

1. (Prove) The tangent at any point of a circle is perpendicular to the radius through the point of contact.
2. (Prove) The lengths of tangents drawn from an external point to a circle are equal.

## UNIT V: TRIGONOMETRY

## 1. INTRODUCTION TO TRIGONOMETRY

(10) Periods

Trigonometric ratios of an acute angle of a right-angled triangle. Proof of their existence (well defined); motivate the ratios whichever are defined at $0^{\circ}$ and $90^{\circ}$. Values of the trigonometric ratios of $30^{\circ}, 45^{\circ}$ and $60^{\circ}$. Relationships between the ratios.
2. TRIGONOMETRIC IDENTITIES
(15) Periods

Proof and applications of the identity $\sin ^{2} A+\cos ^{2} A=1$. Only simple identities to be given.
3. HEIGHTS AND DISTANCES:
(10) Periods

Angle of Elevation, Angle of Depression.
Simple problems on heights and distances. Problems should not involve more than two right triangles. Angles of elevation / depression should be only $30^{\circ}, 45^{\circ}$, and $60^{\circ}$.

## UNIT VI : MENSURATION

1. AREAS RELATED TO CIRCLES
(12) Periods

Area of sectors and segments of a circle. Problems based on areas and perimeter / circumference of the above said plane figures. (In calculating area of segment of a circle, problems should be restricted to central angle of $60^{\circ}, 90^{\circ}$ and $120^{\circ}$ only.
2. SURFACE AREAS AND VOLUMES
(12) Periods

Surface areas and volumes of combinations of any two of the following: cubes, cuboids, spheres, hemispheres and right circular cylinders/cones.

## UNIT VII : STATISTICS AND PROBABILITY

## 1. STATISTICS

(18) Periods

Mean, median and mode of grouped data (bimodal situation to be avoided).
2. PROBABILITY
(10) Periods

Classical definition of probability. Simple problems on finding the probability of an event.

## Syllabus

## MATHEMATICS-Standard QUESTION PAPER DESIGN <br> CLASS - X (2023-24)

Time : 3 Hours
Max. Marks : 80

| S. | Typology of Questions <br> No. | Total <br> Marks | \% <br> Weightage <br> (approx.) |
| :---: | :--- | :--- | :--- |
| 1. | Remembering : Exhibit memory of previously <br> learned material by recalling facts, terms, basic <br> concepts, and answers. <br> Understanding : Demonstrate understanding <br> of facts and ideas by organizing, comparing, <br> translating, interpreting, giving descriptions, <br> and stating main ideas. | 43 |  |
| 2. | Applying: Solve problems to new situations by <br> applying acquired knowledge, facts, techniques <br> and rules in a different way. |  |  |
| 3. | Analysing : Examine and break information <br> into parts by identifying motives or causes. <br> Make inferences and find evidence to support <br> generalizations. <br> Evaluating : Present and defend opinions by <br> making judgments about information, validity <br> of ideas, or quality of work based on a set of <br> criteria. <br> Creating : Compile information together in a <br> different way by combining elements in a new <br> pattern or proposing alternative solutions. | 19 | 54 |
|  | $\mathbf{8 0}$ |  |  |


| INTERNAL ASSESSMENT | $\mathbf{2 0}$ Marks |
| :--- | :---: |
| $\bullet$ Pen Paper Test and Multiple Assessment (5+5) | 10 Marks |
| $\bullet$ Portfolio | 05 Marks |
| $\bullet$ Lab Practical (Lab activities to be done from the prescribed books) | 05 Marks |

