## DELHI PUBLIC SCHOOL, JAMMU SYLLABUS BIFURATION SESSION- (2024-25)

# CLASS-XI

## **SUBJECT: APPLIED MATHEMATICS (241)**

Applied Mathematics is a branch of Mathematics that concerns itself with mathematical methods that are typically used in science, engineering, business and industry.

Applied Mathematics also describes the professional specialty in which mathematicians work on practical problems.

### **Objectives of theory :**

- Promote understanding of basic facts and concept in App. Mathematics while retaining the excitement of Mathematics.
- **4** Develop problem solving skills in student
- 4 Acquaint student with different aspect of Applied Mathematics used in daily life.
- **4** Develop an interest in the student to study App. Math as a discipline.

## **Objectives of activity:**

Developing mathematical thinking is about developing habit of mind: defining, systematizing, abstracting, making connection, developing new ways to describe situations and make predictions, creating, inventing, and experimenting.

| S.No. | Month | Topic/Chapter  |
|-------|-------|--|
| 1.    | April | Unit-1(a): Numbers, Quantification and Numerical .   |
|       |       | Applications   |
|       |       | Foundation worksheet on NUMBERS                      |
|       |       | Activity-1 by using prime no. and div. rule          |
| 2.    | May   | Unit-1(b): Numerical Applications                    |
|       |       | <b>Revision sheet</b> (Numerical Applications) and   |
|       |       | Sample paper-1 on Numbers, Quantification            |
|       |       | Assignment-1 for revision of topics:                 |
|       |       | (a)Time and distance,                                |
|       |       | (b)work.   |
|       |       | KAHOOT quiz on Numbers                               |
|       |       | Class test-1 on Numbers, Quantification              |
| 3.    | June  | Unit-2(a): Algebra                                   |
|       |       | Class test-1 on Numbers, Quantification              |
|       |       | Activity Fibonacci sequence: history and presence in |
|       |       | nature   |
| 4.    | July  | Unit-2(b): Algebra (Mensuration)                     |
|       |       | Assignment-2 for revision of topics                  |
|       |       | (a) Sitting arrangement                              |
|       |       | (b) Vol. and SA 2D &3D fig.                          |
|       |       | Kahoot quiz on sets.                                 |
|       |       |  |

| 5.  | August    | Unit-4: Calculus                                      |
|-----|-----------|---|
|     |           | Assignment-3 for revision of topics                   |
|     |           | (a) Limit   |
|     |           | (b) continuity.                                       |
|     |           | Sample paper-2 on                                     |
|     |           | Unit-1: Numbers, Quantification                       |
|     |           | Unit-2: Algebra                                       |
|     |           | Unit-3: Mathematical Reasoning                        |
|     |           | Unit-4: CALCULUS                                      |
|     |           | Unit-5:Probability                                    |
| 6.  | September | Unit-5: Probability                                   |
|     |           | Assignment-4 (Probability                             |
|     |           | Activity testing the validity of mathematical         |
|     |           | statement and framing truth table                     |
| 7.  | October   | . Unit-6: Descriptive statistics                      |
|     |           | Assignment-5 for revision of topics                   |
|     |           | (a) Mean, Mode  |
|     |           | (b) Measure of central tendency                       |
|     |           |   |
|     |           | CT-3 : <b>Descriptive statistics</b> and Reasoning    |
|     |           | Unit-3(a): Unit-3: Mathematical Reasoning             |
| 8.  | November  | Assignment-6 for revision of topics reasoning         |
|     |           | Activity testing the validity of mathematical         |
|     |           | statement and framing truth table                     |
|     |           | <b>PPT</b> on perpetuity, sinking fund, Bonds         |
| 9.  | December  | Unit-7: Financial Maths                               |
|     |           | Unit-8: Co-ordinate Geometry                          |
|     |           | Assignment-7 for revision of topics CI &SI            |
|     |           | Revision sheet (sinking fund, Bonds) and              |
|     |           | Sample paper-3  |
|     |           | Unit-1: Numbers, Quantification                       |
|     |           | Unit-2: Algebra                                       |
|     |           | Unit-3: Mathematical Reasoning                        |
|     |           | Unit-4: CALCULUS                                      |
|     |           | Unit-5: Probability                                   |
|     |           | Unit-6: Descriptive statistics                        |
|     |           | Unit-7: Financial Maths                               |
|     |           | Unit-8: Co-ordinate Geometry                          |
| l   |           | DDT an nonschritter sighting frend Derede             |
| 10  | <b>T</b>  | PPT on perpetuity, sinking fund,Bonds                 |
| 10. | January   | Case study questions                                  |
|     |           | Assignment-8 for revision of topics Straight line     |
| 11. | February  | 1. Chapter-wise revision and practice of sample paper |
|     |           |   |
|     |           |   |
|     |           |   |

| 12 | March | 1. Chapter-wise revision and practice of sample paper |
|----|-------|---|
|    |       | 2. Revision   |
|    |       |   |

#### Syllabus of Cycle Test-1

Unit-1: Numbers, Quantification Unit-2: Algebra

## SYLLABUS (HALF YEARLY EXAMINATION)

Unit-1: Numbers, Quantification Unit-2: Algebra Unit-3: Mathematical Reasoning Unit-4: CALCULUS Unit-5:Probability

#### Syllabus of Cycle Test-2

Unit-6: Descriptive statistics

Unit-7: Financial Maths

### SYLLABUS (FINAL EXAMINATION)

Unit-1: Numbers, Quantification Unit-2: Algebra Unit-3: Mathematical Reasoning Unit-4: Calculus Unit-5: Probability Unit-6: Descriptive statistics

Unit-7: Financial Maths

Unit-8: Co-ordinate Geometry

Mr. Rajesh Shastri Subject Coordinator