

**MODERN PUBLIC SCHOOL, SHALIMAR BAGH**  
**SYLLABUS FOR THE SESSION: 2018-19**

**CLASS XII**  
**SCIENCE**

**ENGLISH**

**Prescribed Books:**

- 1. Flamingo, Text book for XII ( Core Course )**
- 2. Vistas – Supplementary Reader for class XII ( Core Course )**
- 3. Invisible Man (Novel)**

**UNIT I**

<b>Flamingo</b>	:	Prose : 4,5
<b>Flamingo</b>	:	Poem : 1,2
<b>Vistas</b>	:	Chapters 6,7

**UNIT II**

<b>Flamingo</b>	:	Prose : 1,3
<b>Flamingo</b>	:	Poem : 3,4
<b>Vistas</b>	:	Chapters 2,4

**TERM I EXAMINATION**

Comprehension & Note making  
Short Compositions  
Letters  
Report Writing  
Article/Speech/Debate

<b>Flamingo</b>	:	Prose : 1, 3, 4, 5
<b>Flamingo</b>	:	Poem : 1, 2, 3, 4
<b>Vistas</b>	:	Chapter 2, 4, 6, 7
<b>Invisible Man</b>	:	Chapter 1 to 10

**PREBOARD-1 AND PREBOARD-2 EXAMINATION**

**Complete Syllabus**

# MATHEMATICS

**Prescribed Book: Mathematics Textbook for Class XII-NCERT Part I and Part II**

## UNIT I

<b>Chapter 1</b>	:	Relations and Functions
<b>Chapter 2</b>	:	Inverse Trigonometric Functions
<b>Chapter 3</b>	:	Matrices

## UNIT II

<b>Chapter 4</b>	:	Determinants
<b>Chapter 5</b>	:	Continuity and Differentiation
<b>Chapter 6</b>	:	Application of Derivatives

## TERM I EXAMINATION

<b>Chapters 1 to 7 and</b>		
<b>Chapter 7</b>	:	Integration (Indefinite only)
<b>Chapter 8</b>	:	Application of Integration
<b>Chapter 9</b>	:	Differential Equations

## PREBOARD-1 AND PREBOARD-2 EXAMINATION

**Complete Syllabus**

# PHYSICS

## Prescribed Books:

1. Physics for Class XII, Part I & II, NCERT
2. Practical Physics Laboratory manual XII (Arya Publication)

## Reference Books:

1. Modern abc of Physics, Class XII
2. New Era Physics by Surinder Lal (G. R. Bathla)

## UNIT I

Chapter 1	:	Electric Charges and Fields
Chapter 2	:	Electrostatic Potential and Capacitance
Chapter 3	:	Current Electricity

## UNIT II

Chapter 4	:	Moving Charges and Magnetism
Chapter 5	:	Magnetism and Matter
Chapter 6	:	Electromagnetic Induction

## TERM I EXAMINATION

Chapters 1,2,3,4,5,6 and

Chapter 9	:	Ray Optics
Chapter 10	:	Wave Optics

## PREBOARD-1 AND PREBOARD-2 EXAMINATION

Complete Syllabus

**Note :** Syllabus for Practical examinations will be given by the teachers.

# CHEMISTRY

## Prescribed Books:

1. Chemistry, Textbook for Class XII- Part I, II ( NCERT )
2. Laboratory Manual in Chemistry for Class XII (NCERT, Laxmi Publication, comprehensive)

## UNIT I

- Unit 1** : Solid States  
**Unit 3** : Electrochemistry  
**Unit 4** : Chemical Kinetics

## UNIT II

- Unit 10** : Haloalkanes and Haloarenes  
**Unit 11** : Alcohols, Phenols and Ethers  
**Unit 12** : Aldehydes, Ketones and Carboxylic Acids and it's derivatives  
**Unit 13** : Amines

## TERM I EXAMINATION

**Unit 1,3,4,10,11,12,13 and**

- Unit 2** : Solutions  
**Unit 15** : Polymers  
**Unit 16** : Chemistry in Everyday Life  
**Practical** : Volumetric Analysis  
: Chromatography  
: Salt Analysis  
: Functional Group Analysis  
: Preparation of Inorganic compounds  
: Project  
: Record + Viva

## **PREBOARD-1 AND PREBOARD-2 EXAMINATION**

### **Complete Syllabus**

- Practical :
  - Full Syllabus
  - Chemical Kinetics Experiment
  - Food Analysis

**Note :** Practical examination will be held after first quarterly examination and Preboard 1 examination for which the syllabus will be given by the teachers.

## **BIOLOGY**

### **Prescribed Books:**

1. **Biology, Textbook for Class XII ( NCERT )**
2. **Together with Biology practical for Class XII( Rachna Sagar Publications )**

### **UNIT I**

- Chapter 5** : Principles of Inheritance  
**Chapter 10** : Microbes in human welfare

### **UNIT II**

- Chapter 6** : Molecular basis of Inheritance  
**Chapter 16** : Environmental Issues

### **TERM I EXAMINATION**

#### **Chapters 5,6,10,16 and**

- Chapter 1** : Reproduction in organisms  
**Chapter 2** : Sexual Reproduction in Flowering plants  
**Chapter 3** : Human Reproduction  
**Chapter 4** : Reproductive Health  
**Practicals** : As per instructions given by teacher

## **PREBOARD-1 AND PREBOARD-2 EXAMINATION**

**Complete Syllabus**

**Practical Syllabus for Pre Board**

**Complete Syllabus**

**Note :** Practical examination will be held after first quarterly examination and Preboard I examination for which the syllabus will be given by the teachers.

## **ENGINEERING GRAPHICS**

**Prescribed Books:**

- 1. Basic Engineering Graphics, Part II by V.P. Kumar**
- 2. Engineering Graphics, published by CBSE (Part II)**

### **UNIT I**

Isometric projection of solids

Construction of isometric scale, isometric projections of single solids with standing position, as well as lying position.

Frustum of pyramids and cone (Indicate the direction of viewing ) in standing position as well as in inverted position.

Hidden lines are not required.

Machine drawing – Screw threads (B.S.W, Square, Knuckle, Metric(External & Internal Threads)), Bolts(Square), Nuts(Hexagonal), plain washer and combination of Nut and bolt, single riveted lap joint.

### **TERM I EXAMINATION**

1. Combination of two solids (except frustum of pyramids and cone) keeping the base side parallel or perpendicular to H.P./U.P and placed centrally together. Axis of both the solids should not be given parallel to H.P.
2. Machine drawing – (Freehand sketches) Threads, Studs, Machine Screws etc. Types of rivets and keys.
3. Assembled views and Dissembled parts of the following Machine parts.
4. Bearings (Open, Bushed), rod-joints- cotter for circular , round and square rods.
5. Multiple choice questions on the subject.

## **PREBOARD-1 AND PREBOARD-2 EXAMINATION**

Assembled views and disassembled parts of the following

1. Turn-Buckle, Flange pipe-joint.
2. Couplings- Protected and un-protected.
3. Pulleys – solid cast iron
4. Revision
5. Practical – Complete machine block questions ( given in the CBSE Syllabus ).
6. “Computer aided design” CAD – Project form software of simple solids (Prisms, Pyramids and frustum of pyramid and cone or Machine blocks as prescribed in part-1.)
7. Sessional work
8. Viva-voce on part I and part II.

### **Complete Syllabus**

## **COMPUTER SCIENCE**

**Prescribed Book: Computer Science with C++ Class XII (Volume 1 and Volume II) by Preeti Arora and Pinky Gupta**

### **UNIT I**

<b>Chapter 1</b>	:	C++ Revision Tour
<b>Chapter 2</b>	:	Basic Object oriented programming Concept
<b>Chapter 3</b>	:	Function Overloading
<b>Chapter 4</b>	:	Classes and Objects

### **UNIT II**

<b>Chapter 5</b>	:	Constructors and Destructors
<b>Chapter 6</b>	:	Inheritance

### **TERM I EXAMINATION**

**Chapters : 1 to 6 and**

<b>Chapter 7</b>	:	Data file Handling
<b>Chapter 8</b>	:	Pointers
<b>Chapter 9</b>	:	Data Structures 1 (Arrays)
<b>Chapter 14</b>	:	Communication Technologies (Partial)

Practical File to be submitted

## **PREBOARD-1 AND PREBOARD-2 EXAMINATION**

### **Complete syllabus**

Complete Practical and Project File to be submitted.

**Note:** Syllabus for Practical Exams will be same as topics covered in theory for that exam.

## **PHYSICAL EDUCATION**

**Prescribed Book: Health and Physical Education by Dr. V.K. Sharma (Saraswati Publication.)**

### **UNIT I**

- Unit I** : Planning in sports  
**Unit VII** : Test and measurement in sports

### **UNIT II**

- Unit III** : Yoga and Lifestyle  
**Unit IX** : Sports Medicine

### **TERM I EXAMINATION**

**Previously covered syllabus i.e Unit I,III, VII and IX**

- Unit V** : Children and Sports  
**Unit XII** : Training in sports  
**Practical (Practical File and Viva)** : **a. Athletics** :Track and field events i.e. Short distance, middle distance and long distance races. Standard track  
Throwing Event – Shot Put  
Jumping Event - Long Jump  
**b.** Any one game out of the following game of your choice :  
Basketball, Football, Handball, Kho Kho, Volleyball  
AAPHER TEST, Barrow’s General Fitness Test and Rikli and Jones Senior Citizen Test.

### **PREBOARD-1 EXAMINATION**

**Unit I to Unit XII**

**Practical** : Syllabus will remain same as being mentioned for quarterly exam

### **PREBOARD-2 EXAMINATION**

**As mentioned above for PreBoard 1 Exam**

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