



SETH ANANDRAM  
JAIPURIA SCHOOL

EMPOWER • ENTHUSE • EXCEL

Kanpur

Syllabus of  
Class

12

Session 2022-23

## ENGLISH LANGUAGE

- Period Order I**
1. Exercises based on Functional Grammar
  2. Proposal Writing

- Half Yearly Exam.**
1. Comprehension
  2. Exercises based on Functional Grammar
  3. Report Writing
  4. Composition
  5. Proposal Writing

Note - Half Yearly Question Paper will cover the syllabus of P.O. I and Half Yearly.

- Preliminary Exam.**
1. Comprehension
  2. Exercises based on Functional Grammar
  3. Report Writing
  4. Composition
  5. Proposal Writing

Recapitulation of the entire syllabus.

Note - The Preliminary Examination Question Paper will cover the entire syllabus completed during the session.

**Name of the Book -**

Total English, Class XI (Morning Star Publication)

## ENGLISH LITERATURE

**Period Order I**

- Tempest : Act 3, Scene 2 & 3  
Prose : The Story of an Hour (Kate Chopin)  
Poetry : The Darkling Thrush (Thomas Hardy)

**Half Yearly Examination**

- Tempest : Act 4 Scene 1 & 2, Act 5 Scene 1  
Prose : The Singing Lesson (Katherine Mansfield)  
The Sound Machine (Roald Dahl)  
Poetry : Birches (Robert Frost)  
Dover Beach (Mathew Arnold)

Note - In Half Yearly Examination, the cumulative syllabus right from Class XI till the portion taught in Class XII will be included.

**Prelim Examination:**

Tempest	:	Revision Prose: To Build a Fire (Jack London) B. Wordsworth (V.S. Naipaul)
Poetry	:	Crossing the Bar (Alfred Lord Tennyson) We are the Music Makers (Arthur William Edgar O' Shaughnessy)

Note - Complete Course of Class XI & XII will be included in the Prelim Examination.

**Name of the Books -**

- The Tempest (Play), William Shakespeare Verity edition.
- Echoes (Short Stories)
- Reverie (Poems)

**HINDI****प्रथम सत्र -**

गद्य संकलन	-	क्या निराश हुआ जाए? - हजारी प्रसाद द्विवेदी
काव्य मंजरी	-	जाग तुझको दूर जाना - महादेवी वर्मा
सारा आकाश		
उपन्यास (उत्तरार्द्ध)	-	अंक 1 से 3 तक
व्याकरण	-	निबन्ध-लेखन, अपठित गद्यांश, मुहावरे, लोकोक्तियाँ एवं वाक्यशुद्धि।

**अर्द्धवार्षिक परीक्षा-**

गद्य संकलन	-	भक्तिन - महादेवी वर्मा संस्कृति क्या है? - रामधारी सिंह दिनकर
काव्य मंजरी	-	उद्यमी नर - रामधारी सिंह दिनकर बादल को घिरते देखा है - नागार्जुन
सारा आकाश		
उपन्यास (उत्तरार्द्ध)	-	अंक 4 से 6 तक
व्याकरण	-	निबन्ध लेखन, अपठित गद्यांश, मुहावरे, लोकोक्तियाँ एवं वाक्य शुद्धि। कक्षा 11 एवं 12 का पूर्व पढ़ाया गया समस्त पाठ्यक्रम।

**पूर्व वार्षिक परीक्षा -**

गद्य संकलन	-	मजबूरी - मन्नू भंडारी एवं कक्षा 11 एवं कक्षा 12 में पढ़ाए गए समस्त पाठ।
काव्य मंजरी	-	अंधेरे का दीपक - हरिवंश राय बच्चन एवं कक्षा 11 एवं कक्षा 12 में पढ़ाए गए समस्त पाठ।

**सारा आकाश**

(उत्तरार्द्ध)	-	अंक 7 से 10 तक तथा पूर्वार्द्ध एवं उत्तरार्द्ध के समस्त अंक।
व्याकरण	-	निबन्ध लेखन, अपठित गद्यांश, मुहावरे, लोकोक्तियाँ एवं वाक्य शुद्धि।

**पूर्व वार्षिक परीक्षा 2** - कक्षा 11 एवं 12 का सम्पूर्ण पाठ्यक्रम।

**पुस्तकों के नाम-**

गद्य संकलन	-	एवरग्रीन पब्लिकेशन
काव्य मंजरी	-	एवरग्रीन पब्लिकेशन
सारा आकाश	-	इण्टर यूनिवर्सिटी प्रेस प्रा० लि०
व्याकरण	-	इण्टर यूनिवर्सिटी प्रेस प्रा० लि०

**MATHEMATICS****Period Order I**

1. Matrices
2. Determinants
3. Inverse Trigonometric Functions
4. Relations and Functions
5. Continuity and Differentiability

**Half Yearly Exam.**

6. Indeterminate Forms
  7. Applications of Derivatives
  8. Integrals (Indefinite & Definite)
- Half Yearly Examinations will also cover the Syllabus of P.O.I

**Pre-Prelims**

9. Differential Equations
10. Probability
11. Vectors / Application of Calculus in Commerce and Economics
12. Three Dimensional Geometry (St. Line & Plane) / Linear Regression
13. Applications of Integrals (Area) / Linear Programming

Pre-preliminary Examinations will cover the Entire Syllabus

**Name of the Book-**

Avichal Publication, M.L. Aggarwal

## PHYSICS

### Period Order I

1. Electric Charges and Fields
2. Gauss' Theorem
3. Electric Potential
4. Capacitors and Dielectrics
5. Electric Resistance and Ohm's Law
6. DC Circuits and Measurements

### Half Yearly Exam.

1. Moving Charges and Magnetic Field
2. Torque on a Current-loop: Moving Coil Galvanometer
3. Magnetic field and Earth's Magnetism
4. Magnetic Classification of Substances
5. Electromagnetic Induction
6. Alternating Current
7. Electromagnetic waves  
Including the Syllabus of Period Order I

### Preliminary Exam I

1. Refraction of Light-Spherical Mirrors
2. Refraction of Light at Plane Surface- Total Internal reflection
3. Refraction of Light at Spherical Surface- Lens
4. Refraction and Dispersion of Light through a Prism
5. Optical Instruments
6. Wave Nature of Light
7. Interference of Light
8. Diffraction of Light
9. Polarisation of Light
10. Photoelectric Effect
11. Matter Waves
12. X-Rays
13. Atom, Origin of Spectra
14. Nuclear Structure
15. Radioactivity
16. Mass-Energy Equivalence
17. Nuclear Fission and Nuclear Fusion
18. Semiconductor Electronics
19. Junction Diode
20. Junction Transistors
21. Logic Gates
22. Communication Systems

**Preliminary Exam II** - Includes the syllabus of P.O. I, Half Yearly and Preliminary Exam I

### Name of the Book -

ISC Physics

Publisher : Nageen Prakashan,

Author : Kumar Mittal

## CHEMISTRY

### Period Order I

1. Solid State
2. Solution
3. General principle and Processes of Isolation of Element
4. p Block Elements
5. Chemistry in Everyday life
6. Halo alkanes & Haloarene

### Half-Yearly Exam.

1. Electrochemistry
2. Coordination Compound
3. Alcohol, Phenols and Ethers
4. Biomolecule
5. Syallabus of P.O.I

### Prelims

1. Chemical Kinetics
2. Surface Chemistry
3. d & f Block Elements
4. Aldehyde, ketones & Carboxylic Acid
5. Organic Compounds containing Nitrogen
6. Syllabus of PO1 and Half Yearly

### Name of the Book -

ISC Chemistry Class XII Part 1 & 2

Dr. M. P. Sawhney, Shri Balaji Publications

Lab Manual

ISC Chemistry Lab Manual for XII, D.N Publication

## BIOLOGY

### Period Order I

1. Reproduction in organisms
2. Reproduction in flowering plants
3. Sexual reproduction in humans
4. Reproductive health

### Half Yearly Exam.

1. Principles of Inheritance

2. Molecular basis of inheritance
3. Evolution
4. Human health and diseases
5. Microbes in human welfare
6. Syllabus of P.O.I

**Prelims**

1. Strategies for enhancement in food production
  2. Biotechnology: Principles and processes
  3. Biotechnology and its applications
  4. Organisms and populations
  5. Ecosystem
  6. Biodiversity and conservation
  7. Environmental issues
- + P.O.I Syllabus  
+ Half Yearly Syllabus

**Name of the Books -**

I.S.C. Biology - Publisher - Balaji  
I.S.C. Biology Practical Note Book

## HISTORY

**Period Order I**

**Indian History**

1. Towards Independence and Partition: The Last Phase (1935-1947)
2. Establishment and development of Indian Democracy (1947-1966)

**Half Yearly Exams**

**Indian History**

1. Challenges to Indian Democracy (1964-1977)
  2. Changing face of the Indian Democracy (1977-1986)
  3. India's Foreign Policy: NAM, Indo-Pak wars (1948-49, 1965, 1971) Sino-Indian War
  4. Movements for Women's Right-Equality Report (1974)
- + Syllabus of P.O.I

**Pre-Prelims I**

**World History**

1. World War II
2. Colonization- in Asia (China), Africa (Ghana & Kenya)
3. Cold War (1945-91)-origin, course, end and impact
4. Protest Movements- Civil Rights Movement, Anti - Apartheid Movement; Feminist Movement

5. Middle East: Israeli-Palestine Conflict (1916-1993)
- Complete Syllabus (As per Council Instructions)

**Prelims II**

**Name of the Book-**

ISC History (Modern India & World History)

Author - Dr. Sachhidananda Banerjee

Publisher - Kalyani Brothers

## GEOGRAPHY

**Period Order I**

1. Locational setting of India
2. Geological evolution of India
3. Relief
4. Drainage
5. Climate
6. Natural Vegetation

**Half Yearly Exam**

1. Population
  2. Migration trends
  3. Demographic Attribute
  4. Rural Settlements
  5. Urban settlements
  6. Environmental Management and Landuse pattern
  7. Water resources and types of Irrigation
- + Including the syllabus of P.O.I

**Prelims I**

1. Agriculture
  2. Fisheries
  3. Minerals and power resources
  4. Transport and communication
  5. Industries
  6. Tourism Industry
  7. Regional and Economic development
- + Including syllabus of POI and Half yearly exam

**Prelims II**

- Includes syllabus of POI, Half yearly and Prelims I.

**Name of the book -**

ISC Geography Class XII

Publisher : Kalyani Publishers, Author: D. R. Khullar



# COMPUTER SCIENCE

## Period Order I

### 1. Boolean Algebra

- a) Propositional logic, well formed formulae, truth values and interpretation of well formed formulae (wff), truth tables, satisfiable, unsatisfiable and valid formulae. Equivalence laws and their use in simplifying wffs.

Propositional variables; the common logical connectives ( $\sim$  (not)(negation),  $\wedge$  (and) (conjunction),  $\vee$  (or)(disjunction),  $\Rightarrow$  (implication),  $\Leftrightarrow$  (biconditional); definition of a well-formed formula (wff); representation of simple word problems as wff (this can be used for motivation); the values true and false; interpretation of a wff; truth tables; satisfiable, unsatisfiable and valid formulae.

Equivalence laws: commutativity of  $\wedge$ ,  $\vee$ ; associativity of  $\wedge$ ,  $\vee$ ; distributivity;  $\sim(\sim p \vee q) = \sim p \wedge q$ ; law of biconditional  $((p \vee q) \wedge (p \wedge q)) \Leftrightarrow (p \vee q) \wedge (p \wedge q)$ ; identity ( $p \vee p = p$ ); law of negation ( $\sim(\sim p) = p$ ); law of excluded middle ( $p \vee \sim p = \text{true}$ ); law of contradiction ( $p \wedge \sim p = \text{false}$ ); tautology and contingency simplification rules for  $\wedge$ ,  $\vee$ . Converse, inverse and contra positive. Chain rule, Modus ponens.

- b) Binary valued quantities; basic postulates of Boolean algebra; operations AND, OR and NOT; truth tables.

- c) Basic theorems of Boolean algebra (e.g. duality, idempotence, commutativity, associativity, distributivity, operations with 0 and 1, complements, absorption, involution); De Morgan's theorem and its applications; reducing Boolean expressions to sum of products and product of sums forms; Karnaugh maps (up to four variables).

Verify the laws of Boolean algebra using truth tables. Inputs, outputs for circuits like half and full adders, majority circuit etc., SOP and POS representation; Maxterms & Minterms, Canonical and Cardinal representation, reduction using Karnaugh maps and Boolean algebra.

### 2. Computer Hardware

- a) Elementary logic gates (NOT, AND, OR, NAND, NOR, XOR, XNOR) and their use in circuits.
- b) Applications of Boolean algebra and logic gates to half adders, full adders, encoders, decoders, multiplexers, NAND, NOR as universal gates.

Show the correspondence between Boolean methods and the corresponding switching circuits or gates. Show that NAND and NOR gates are universal by converting some circuits to purely NAND or NOR gates.

### 3. Implementation of algorithms to solve problems.

The students are required to do lab assignments in the computer lab concurrently with the lectures. Programming assignments should be done such that each major topic is covered in at least one assignment. Assignment problems should be designed so that they are sufficiently challenging. Students must do algorithm design, address correctness issues, implement and execute the algorithm in Java and debug where necessary.

Self explanatory.

### 4. Programming in Java (Review of Class XI Sections B and C)

Note that items 4 to 13 should be introduced almost simultaneously along with classes and their definitions.

While reviewing, ensure that new higher order problems are solved using these constructs.

### 5. Objects

- a) Objects as data (attributes) + behaviour (methods); object as an instance of a class. Constructors.
- b) Analysis of some real-world programming examples in terms of objects and classes.
- c) Basic input/output using Scanner and Printer classes from JDK; input/output exceptions. Tokens in an input stream, concept of whitespace, extracting tokens from an input stream (String Tokenizer class).

### 6. Primitive values, Wrapper classes, Types and casting

Primitive values and types: byte, int, short, long, float, double, boolean, char. Corresponding wrapper classes for each primitive type. Class as type of the object. Class as mechanism for user defined types. Changing types through user defined casting and automatic type coercion for some primitive types.

### 7. Variables, Expressions

Variables as names for values; named constants (final), expressions (arithmetic and logical) and their evaluation (operators, associativity, precedence). Assignment operation; difference between left hand side and right hand side of assignment.

### 8. Statements, Scope

Statements; conditional (if, if else, if else if, switch case, ternary operator), looping (for, while, do while, continue, break); grouping statements in blocks, scope and visibility of variables.

### 9. Methods

Methods (as abstractions for complex user defined operations on objects), formal arguments and actual arguments in methods; different behaviour

of primitive and object arguments. Static method and variables. The this Operator. Examples of algorithmic problem solving using methods (number problems, finding roots of algebraic equations etc.).

#### 10. Arrays, Strings

Structured data types – arrays (single and multi- dimensional), address calculations, strings. Example algorithms that use structured data types (e.g. searching, finding maximum/minimum, sorting techniques, solving systems of linear equations, substring, concatenation, length, access to char in string, etc.).

Storing many data elements of the same type requires structured data types – like arrays. Access in arrays is constant time and does not depend on the number of elements. Address calculation (row major and column major), Sorting techniques (bubble, selection, insertion). Structured data types can be defined by classes – String. Introduce the Java library String class and the basic operations on strings (accessing individual characters, various substring operations, concatenation, replacement, index of operations). The class String Buffer should be introduced for those applications that involve heavy manipulation of strings.

#### 11. Recursion

Concept of recursion, simple recursive methods (e.g. factorial, GCD, binary search, conversion of representations of numbers between different bases).

Many problems can be solved very elegantly by observing that the solution can be composed of solutions to ‘smaller’ versions of the same problem with the base version having a known simple solution. Recursion can be initially motivated by using recursive equations to define certain methods. These definitions are fairly obvious and are easy to understand. The definitions can be directly converted to a program. Emphasize that any recursion must have a base case. Otherwise, the computation can go into an infinite loop.

#### Half Yearly Exam.

#### 12. Inheritance, Interfaces and Polymorphism

- a) Inheritance; super and derived classes; member access in derived classes; redefinition of variables and methods in subclasses; abstract classes; class Object; protected visibility. Subclass polymorphism and dynamic binding.

Emphasize inheritance as a mechanism to reuse a class by extending it. Inheritance should not normally be used just to reuse some methods defined in a class but only when there is a genuine specialization (or subclass) relationship between objects of the super class and that of the derived class.

- b) Interfaces in Java; implementing interfaces through a class; interfaces for user defined implementation of behaviour.

Motivation for interface: often when creating reusable classes some parts of the exact implementation can only be provided by the final end user. For example, in a class that sorts records of different types the exact comparison operation can only be provided by the end user. Since only he/she knows which field(s) will be used for doing the comparison and whether sorting should be in ascending or descending order be given by the user of the class.

Emphasize the difference between the Java language construct interface and the word interface often used to describe the set of method prototypes of a class.

#### 13. Data structures

- a) Basic data structures (stack, queue, circular queue, dequeue); implementation directly through classes; definition through an interface and multiple implementations by implementing the interface. Conversion of Infix to Prefix and Postfix notations.

Basic algorithms and programs using the above data structures.

Data structures should be defined as abstract data types with a well-defined interface (it is instructive to define them using the Java interface construct).

- b) Binary trees: apart from the definition the following concepts should be covered: root, internal nodes, external nodes (leaves), height (tree, node), depth (tree, node), level, size, degree, siblings, sub tree, completeness, balancing, traversals (pre, post and in-order).

#### Period Order II & Preliminary Examination - Revision

#### Name of the Book:

Computer Science with Java

Author - Sumita Arora

### ENVIRONMENTAL SCIENCE

- |                       |                            |
|-----------------------|----------------------------|
| <b>Period Order I</b> | 1. Third World Development |
|                       | 2. Conservation Ecology    |

- |                         |   |
|-------------------------|---|
| <b>Half-Yearly Exam</b> | 1. Population Ecology.                        |
|                         | 2. Monitoring Pollution                       |
|                         | 3. Human Beings and Nature + syllabus of PO-1 |

- |                        |                            |
|------------------------|----------------------------|
| <b>Period Order II</b> | 1. Sustainable Agriculture |
|------------------------|----------------------------|

- |                   |  |
|-------------------|--|
| <b>Final Exam</b> | 1. Environmental and Natural Resource Economics. |
|-------------------|--|

[Prelims]

2. International Relations and the Environment  
+ Complete Syllabus

**Name of the Book -**

I.S.C. Environmental Science for Class-12

Publisher - Goyal Brothers Prakashan, Author - Dr. Nirmal Kapoor.

## BUSINESS STUDIES

**Period Order I**

1. Introduction of Human Resource Management
2. Job and Man Power Planning
3. Staff Recruitment
4. Staff Selection
5. Staff Training
6. Staff Morale
7. Business Correspondence

**Half Yearly Exam.**

1. Staff Motivation
  2. Staff Remuneration
  3. Staff Leadership
  4. Staff Appraisal
  5. Staff Promotion and Transfer
  6. Staff Separation
  7. Emerging Trends in Human Resource
- Note: Half yearly examination includes syllabus of PO I exam.  
Evaluation of Project-1

**Prelims**

1. Business Communication
  2. Reports & Report Writing
  3. Various Business Entities
  4. Sources of Business Finance
  5. Globalisation
  6. E-Business
  7. Outsourcing
  8. Business Regulators & Intermediaries
- Note: Prelims examination includes syllabus of PO I

& HY exams.

Evaluation of Project-2

**Name of the Book:**

ISC Business Studies Part 2 for Class XII

Author : C.B. Gupta

Publisher : Goyal Brothers Prakashan

## PHYSICAL EDUCATION

**Period Order I**

- Section –A
1. Sociological Aspects of Physical Education
  2. Training Method
- Section –B
1. Hockey
  2. Football
  3. Cricket

**Half Yearly Examination**

- Section –A
1. Career aspects in Physical Education
  2. Competition and Tournament
- Section –B
1. Football
  2. Hockey
  3. Cricket
- Practical : Physical Test, Viva-Voice  
+ P.O. I

**Prelims I**

- Section –A
1. Health Education and Health Problem
  2. First Aid and Sports Injuries

Section –B

1. Volleyball
2. Cricket
3. Football
4. Hokey

Practical

: Physical Test, Viva-Voice  
+P.O.- I + Half Yearly Examination

**Prelims II**

Practical : P.O.- I + Half Yearly Examination + Prelims I

Practical : Physical Test, Viva-Voice and Project

## COMMERCE

- Period Order I**
1. Business Environment
  2. Capital – Fixed and Working
  3. Sources of Finance for a Joint Stock Company
  4. Banking- Latest Trends
  5. Consumer Protection

- Half Yearly Exam.**
1. Planning
  2. Marketing – Concept and Function
  3. Marketing Mix
  4. Management- Meaning, Nature and Importance
  5. Principles of Management
  6. Evaluation of Project 1

Note : Half yearly examination includes syllabus of PO I also.

- Prelims**
1. Organising
  2. Staffing
  3. Directing
  4. Controlling
  5. Evaluation of Project 2
  6. Complete Syllabus

**Name of the Book :**  
ISC Commerce Vol.-II  
Author: C.B.Gupta  
Publisher: S.Chand

## ACCOUNTS

- Period Order I**
1. Accounting for Partnership Firms- Fundamentals
  2. Goodwill- Concept and Valuation
  3. Admission of a Partner
  4. Retirement or Death of a Partner

(Applications of Change in PSR in Admission as well as Retirement)

- Half Yearly Exam.**
1. Dissolution of Partnership Firm
  2. Company Accounts- Issue of Shares
  3. Company Accounts- Issue of Debentures
  4. Company Accounts- Redemption of Debentures

- Prelims**
1. Financial Statements of Companies
  2. Financial Statement Analysis
  3. Tools of Financial Analysis - Comparative Statements
  4. Common Size Statements
  5. Cash Flow Statement
  6. Ratio Analysis

**Name of the Book –**  
New ISC Accountancy  
Author - D. K. Goel, Avichal Publication (APC).

## ECONOMICS

- Period Order I**
1. Demand and Law of Demand
  2. Theory of Consumer behaviour
  3. Elasticity of Demand
  4. Supply- Law and Elasticity of Supply
  5. Market Equilibrium

- Half Yearly Exam.**
1. Laws of Return
  2. Cost & Revenue
  3. Forms of Market
  4. Producers Equilibrium
  5. Equilibrium of a Firm
  6. Money
  7. Banking

Period Order I Syllabus included in Half Yearly Examination.

- Prelims**
1. Balance of payment
  2. Theory of Income and Employment
  3. Circular Flow of Income
  4. National Income Aggregates
  5. Measurement of National Income
  6. Fiscal Policy
  7. Govt Budget
  8. Full Syllabus

**Name of the Book :**  
Frank ISC Economics  
Author: D.K.Sethi & U.Andrews, Publisher: Frank Bros. & Co.

## MUSIC (VOCAL & INSTRUMENTAL)

Note - Full Syllabus of Class 11th.

### Period Order I

- Practical (a) Introduction of Raag Bihaag.  
(b) Taal - Dhamaar with Thah Dugun and Chaugun speed.
- Theory (a) Definition of Naad (Volume, Pitch and Timbre) .  
(d) Definition of Taal, Matra, Vibhag, Taali, Khali, Sam, Avartan.  
(c) Two main system of Indian classical music.  
(d) Vaadi, Samvadi, Jaati.

### Half Yearly Exam

- Practical (a) Introduction of Raga Bhairavi, Kafi, Bageshree.  
(b) One khyal/gat with Todas/Taans in Raag Bhairavi, Kafi and Bageshree.  
(c) Thah, Dugun and Chaugun of Ektaal and roopak Taal.  
(d) One Vilambit Khayal/Masetkhani Gat in any one Raga.
- Theory (a) Definition of Raag Dhrupad, Dhamaar, Meed, Andolan, Gamak, Kand, Alaap and Taan.  
(c) Sketch of any instrument with detail, tuning, history, and labeling their parts.  
(d) Life of contribution of Pt. Ravi Shankar.  
(e) Identification of Raags with the help of given short swar-vistar.  
(f) Definition of Raag, Purva, Uttar, Sandhi Prakash, Shudh, Chaayalag, Sankirn Raag.  
(g) Definition of Shruti and Thaata, Vaadi, Samvadi, Vikrit, Varjit Swar, Aroh, Avroh, Pakad, Anuvadi, Vivadi Swar.

### Period Order II

- Practical (a) Introduction of Raag Malkaush.  
(b) Introduction of Chartaal with Dugun and Chaugun speed.
- Theory (a) Vadi Swar and Time of Raag.  
(b) Brief History of Indian Music (Modern period). Laya and Layakari  
(c) Laya and its Type.  
(d) Vadi, Samvadi, Anuvadi, Vikrit, Varjit swar.

### Final Examination

- Practical (a) All 10 Ragas and 8 Taals.
- Theory (a) Life of contribution of Pt. Bhimsen Joshi.  
(b) Classification of Indian Musical Instruments (Tat, Vitat, Sushir, Awnadh & Ghan).

## MUSIC INSTRUMENTAL (TABLA)

### Period Order I

- Practical (a) Introduction of Jhaptaal and Dadra Taal with Layakaari.  
(b) Four Kisme in Kaharwa and Dadra Taal.
- Theory (a) Definition of Taal, Matra, Vibhag, Taal, Khali, Sam, Lahera (Nagma).  
(b) History and Knowledge of Tabla.  
(c) Five Prans of Taal. (Grah, Jaati, Yati, Prastaar, Laya)

### Half Yearly Exam

- Practical (a) Introduction of Taal Dadra, Teentaal and Dhamaar with Thah Dugun and Chaugun Speed.  
(b) One tukda, two kisme and one kayada with two paltas and tihai in Jhaptaal.  
(c) Tukda and Paran in Teentaal.  
(d) One kayda with two Paltas with tihai in Teentaal.
- Theory (a) Definition of Tat, Vitat, Sushir, Avnadh, Ghan, Tihai, Gat, Kaida, Palta, and Rela.  
(b) Solo & Sangat.  
(c) Life History of Pt. Kishan Maharaj.  
(d) Essay type questions (Related to Music).  
(e) Sketch of Tabla with detail, tuning, history, and labeling their parts.

### Period Order II

- Practical (a) One, Laggi, Ladi, Gat and Chakkardaar Tukda in Teentaal.  
(b) Introduction of Jhoomra and Kaharwa taal with Thah, Dugun and Chaugun speed.
- Theory (a) Definition of Laggi, Ladi, Chakkardaar Tukda and Paran.  
(b) Definition of Taal, Matra, Vibhag, Taal, Khali, Sam, Thah, Dugun, Chaugun.

### Final Examination

- Practical (a) All the Taals of Previous Period Orders.
- Theory (a) All the Definitions.  
(b) Life History of Ustad Ahmad Jaan Thirakwa.  
Note - Complete syllabus of class 11th and 12th.

### Name of the Book -

Basic Principles of Indian Music  
Publishers - Abhinav Granthagar  
Author - Mrs. Nirmalesh Kapoor



## POLITICAL SCIENCE

- Period Order 1**
1. Forms of government: - Totalitarian, Authoritarian, Liberal Democratic states.
  2. Unitary and Federal government
  3. Parliamentary and Presidential government
  4. Constitution
  5. Amending procedure

- Half Yearly Exams**
1. Franchisee and representation
  2. Organs of the Government:- Legislature, Executive.
  3. Indian Constitution
  4. Preamble
- Note : Half yearly examination includes syllabus of PO 1 also.

- Prelims**
1. Fundamental Rights and directive principles
  2. Local self Government
  3. Democracy in India
  4. Preamble
  5. Judiciary
- + Complete Syllabus

## FASHION DESIGNING

### SECTION A

#### Chapter 1. Introduction to Textiles

- (a) Definitions of textiles, fibre, yarn and fabric and their qualities.
- An introduction to textiles by identifying textiles currently available in the market.
- Understanding of textiles by defining basic terms such as: fibre, yarn, fabric, finish, textile. Uses of textiles in the following aspects of life should be discussed briefly: Apparel, household, industrial & medical.
- The components of serviceability of textile products should be explained with reference to: aesthetics, durability, comfort, appearance, retention and care.
- (b) Importance of the textile industry
- Importance of the textile industry to the

Economy of India - a brief discussion on its contribution to the GDP, employment & export.

#### Chapter 2. Textile Fibres

- (a) Types of fibres. Staple and filament fibres - definition and examples.
- (b) Classification of textile fibres based on Origin:
- Natural and Manufactured fibres. (i) Natural Fibres (Plant and animal origin). • Cellulosic fibres: Cotton, Flax, linen, jute, hemp; • Protein fibres - Wool, Silk;
- Identification, properties, uses, advantages and disadvantages of the above.
- (ii) Manufactured fibres - Rayon, Polyester, Nylon, Acrylic, Acetate, spandex.
- Identification, properties, uses, advantages and disadvantages of the above.
- (c) Fibre Properties. A broad understanding of terms describing fibres and their properties in order to understand their nature and how they contribute to fabric properties.
- (i) Essential or primary properties - length to width ratio, density, tenacity, flexibility, cohesiveness.
- (ii) Secondary properties – abrasion resistance, absorbency, elongation, resiliency, elastic recovery, electrical conductivity, elasticity, lustre, heat conductivity.

#### Chapter 3. Yarn

- (a) Yarn formation: Opening, cleaning, carding, combing, drawing, roving, spinning.
- (i) Yarn Processing
- Spun and Filament yarns: definition and examples.
- (ii) Production of Spun and Filament Yarns:
- Spun yarn:
- Ring Spinning: Opening, cleaning, carding, combing, drawing, roving, and spinning (a brief understanding of each process).
- Filament yarn :
- Chemical spinning: Types - Wet spinning, Melt spinning, dry spinning (a brief understanding of each process).
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- (b) Yarn twist. Importance, uses and advantages of yarn twist; amount of twist and how it contributes to strength and appearance.

Types of yarns and their qualities - Single, Ply and Fancy.

(c) Blends. Meaning, advantages and examples of blends.

#### Chapter 4. Fabric Construction Techniques

(a) Weaving: Characteristics, advantages, disadvantages and uses.

Understanding basic terminology: Warp, weft and grain. Process of weaving: a basic understanding of the loom and its operations;

The three basic weaves:

Plain Weave – its variations (Basket and Rib).

Twill Weave – its variations (Uneven and Even)

Satin and Sateen Weave

A brief idea of construction, characteristics, advantages, disadvantages and uses of the above weaves.

(b) Other fabric constructions: Knitting, Knotting (macramé), Crochet, Braiding and Lace – to be explained briefly.

Basic understanding of the making, use and characteristics of the above.

Difference between woven and knit fabrics. (c) Non-Woven – Leather, Suede, Fur, Felt, Plastics, Bonded, Fused and Laminated fabrics.

Uses and characteristics of the above to be explained briefly.

#### Chapter 5. Textiles in India

(a) Significance of colour in India.

Social, cultural and psychological importance of colour in India.

(b) Indigenous dyes: Onion, Pomegranate, Marigold, Coffee, Henna (Mehendi), Turmeric and Beetroot.

Using natural materials like Onion peels, Pomegranate peels, Marigold flowers, Coffee, Henna (Mehendi), Turmeric and Beetroot for dyeing of fabrics. Advantages of using natural dyes over synthetic dyes.

(c) Indian Textiles: Paithani, Patola, Pochampali, Baluchar Butidar, Maheshwari, Mekhala Chadhar and Kanjeevaram. Short notes on the following traditional saris with respect to origin, raw materials used, technique/s used, colours and designs: - Paithani, Patola, Pochampalli, Baluchari Maheshwari, Mekhala Chadhar an Kanjeevaram.

(d) Drapes

Different sari drape styles in India:

(i) Nine-yard Maharashtrian style

(ii) Gujarati style

(iii) Coorg style Description of the above drape styles along with sketching.

## SECTION B

### Chapter 6. History of Fashion in Europe: 1901-1950

(a) 1901-1920: Edwardian period / Labelle Époque / World War I.

- A brief historical background; the effect of War on Fashions.
- Influences on Fashion- the French couture, changing role of women, advent of the automobile and influence of the American high society.
- 1901-1908: Emphasis on S-shape silhouette – pigeon chest. • 1909-1914: Straight line Empire revival and the hobble skirt with tight bottoms.
- 1914-1918: World War I silhouette was wider and skirts grew shorter
- 1918-1919: Post war styles, barrel shaped silhouettes

(b) 1941–1950: Frugal period / World War II,

(c) 1947 – New Look. Rationing of materials for Wartime utility clothing to Dior’s new Look that added flare to the skirt.

### Chapter 7. Traditional Costumes of Women in India

The following traditional costumes of women are

To be studied.

- Ghagra–choli and odhni of Rajasthan;
- Kurti, Daaman and Chunder of Haryana;
- Sari of Tamil Nadu;
- Pheran, skull cap, salwar and stole of
- Kashmir;
- Salwar–Kameez and dupatta of Punjab;
- Sari and blouse of Andhra Pradesh;
- Sharara & Gharara of Uttar Pradesh. Identification and sketching of the above along with short notes on the given traditional wears in terms of materials, colours, pattern styles/ design and use.

### Chapter 8. Traditional Costumes of Men in India

The following traditional costumes of men are to be studied:

- Jodhpuri Suit of Rajasthan;
- Achkan/ Sherwani/ Kurta: with mandarin collar or without collar of North India; • Salwar / Churidar of Aligarh / Kutch;
- Cholu, dor and topi of the Gaddi Tribe of
- Himachal Pradesh;
- Surkha, waist-coat and cap of the Koli Fishermen of Maharashtra.



Identification and sketching of the above along with short notes on the given traditional wears in terms of materials, colours, pattern styles/ design and use.

## ART

### Period Order I

1. Objects from doctor's table.
2. Bouquet of flowers from a florist.
3. Maize corn blade.
4. Curls or twist in stems.

### Half Yearly Exam.

1. Composition drawing using different elements.
2. Illustration.
3. Damaged/blooming leaves.
4. Objects from music room.

### Prelims

1. Objects from Art/Craft Kit.
2. Reflections.
3. Objects from office table.
4. Strokes and textures in fabric.
5. Screen printing.
6. Objects from carpentry room.
7. Different knots in macrame.
8. Different utensils from kitchen.
9. Work finishing and compilation.
10. Revision and problem discussion.