

ENGLISH CORE
CODE NO. 301
CLASS – XI (2022-23)

Section A
Reading Skills

Reading Comprehension through Unseen Passage

18 Marks

I. One unseen passage to assess comprehension, interpretation inference and vocabulary. The passage may be factual, descriptive or literary.

II. One unseen **case-based** passage with verbal/visual inputs like statistical data, charts etc.

Note: The combined word limit for both the passages will be 600-750.

Multiple Choice Questions / Objective Type Questions will be asked.

(10+8 = 18 Marks)

III. Note Making and Summarization based on a passage of approximately 200-250 words.

i.	Note Making:		5 Marks
	o Title:	1	
	o Numbering and indenting:	1	
	o Key/glossary:	1	
	o Notes:	2	
ii.	Summary (up to 50 words):		3 Marks
	o Content:	2	
	o Expression:	1	

Section B

IV. Grammar

7 Marks

i. Questions on Gap filling (Tenses, Clauses)

ii. Questions on re-ordering/transformation of sentences

(Total seven questions to be done out of the eight given).

V. Creative Writing Skills

16 Marks

i. Short writing task – Classified Advertisements up to 50 words. One out of the two given questions to be answered (3 Marks: Format : 1 / Content : 1 / Expression : 1)

ENGLISH CORE
CODE NO. 301
CLASS – XII 2022-23

Section A
Reading Skills

Reading Comprehension through Unseen Passage

20 Marks

I. One unseen passage to assess comprehension, interpretation and inference. Vocabulary and inference of meaning will also be assessed. The passage may be factual, descriptive or literary. (10x1=10

Marks)

II. One unseen **case-based** passage with verbal/visual inputs like statistical data, charts etc.

(10x1=10 Marks)

Note: The combined word limit for both the passages will be 700-750 words.

Multiple Choice Questions / Objective Type Questions will be asked.

Section B

III. Creative Writing Skills

20 Marks

The section has Short and Long writing tasks.

- i. Notice up to 50 words. One out of the two given questions to be answered. (5 Marks: Format : 1 / Organisation of Ideas: 1/Content : 2 / Accuracy of Spelling and Grammar : 1).
- ii. Formal/Informal Invitation and Reply up to 50 words. One out of the two given questions to be answered. (5 Marks: Format : 1 / Organisation of Ideas: 1/Content : 2 / Accuracy of Spelling and Grammar :1).
- iii. Letters based on verbal/visual input, to be answered in approximately 120-150 words. Letter types include application for a job with bio data or resume. Letters to the editor (giving suggestions or opinion on issues of public interest) . One out of the two given questions to be answered . (5 Marks: Format : 1 / Organisation of Ideas: 1/Content : 2 / Accuracy of Spelling and Grammar :1).
- iv. Article/ Report Writing, descriptive and analytical in nature, based on verbal inputs, to be answered in 120-150 words. One out of the two given questions to be . (5 Marks: Format : 1 / Organisation of Ideas: 1/Content : 2 / Accuracy of Spelling and Grammar :1).

PRINCIPAL
St. Peter's Sr. Sec. School
Kesh, Jaswant Nagar, Etawah

हिंदी (आधार) (कोड सं. 302) कक्षा -11वीं (2022 -23)
परीक्षा हेतु पाठ्यक्रम विनिर्देशन

- प्रश्न-पत्र दो खण्डों - खंड 'अ' और 'ब' का होगा।
- खंड 'अ' में 45 वस्तुपरक प्रश्न पूछे जाएँगे जिनमें से केवल 40 प्रश्नों के ही उत्तर देने होंगे।
- खंड 'ब' में वर्णनात्मक प्रश्न पूछे जाएँगे। प्रश्नों में उचित आंतरिक विकल्प दिए जाएँगे।

भारांक 100

निर्धारित समय 3 घंटे

खंड अ (वस्तुपरक प्रश्न)		भार
विषयवस्तु		भार
1	अपठित गद्यांश	15
	अ एक अपठित गद्यांश (अधिकतम 300 शब्दों का) (1 अंक x 10 प्रश्न)	10
	ब दो अपठित पद्यांशों में से कोई एक पद्यांश (अधिकतम 150 शब्दों का) (1 अंक x 5 प्रश्न)	05
2	पाठ्यपुस्तक अभिव्यक्ति और माध्यम की इकाई एक से पाठ संख्या 1 तथा 2 पर आधारित	05
	बहुविकल्पात्मक प्रश्न (1 अंक x 5 प्रश्न)	05
3	पाठ्यपुस्तक आरोह भाग - 1 से बहुविकल्पात्मक प्रश्न	10
	अ पठित काव्यांश पर पाँच बहुविकल्पी प्रश्न (1 अंक x 05 प्रश्न)	05
	ब पठित गद्यांश पर पाँच बहुविकल्पी प्रश्न (1 अंक x 05 प्रश्न)	05
4	पूरक पाठ्यपुस्तक वितान भाग-1 से बहुविकल्पात्मक प्रश्न	10
	अ पठित पाठों पर दस बहुविकल्पी प्रश्न (1 अंक x 10 प्रश्न)	10
खंड - ब (वर्णनात्मक प्रश्न)		भार
विषयवस्तु		भार
5	पाठ्यपुस्तक अभिव्यक्ति और माध्यम से सृजनात्मक लेखन और व्यावहारिक लेखन पाठ संख्या 1, 2, 9, 10, 14, 15 तथा 16 पर आधारित	20
	1 दिए गए चार अप्रत्याशित विषयों में से किसी एक विषय पर लगभग 120 शब्दों में रचनात्मक लेखन (6 अंक x 1 प्रश्न)	05
	2 औपचारिक पत्र लेखन। (5 अंक x 1 प्रश्न) (विकल्प सहित)	05
	3 डायरी लेखन, कथा - पटकथा विषयों पर लेखन पर आधारित दो प्रश्न (3 अंक x 2 प्रश्न) (विकल्प सहित) (लगभग 60 शब्दों में)	06

PRINCIPAL
St. Peter's Sr. Sec. School
Kesth, Jaswant Nagar, Etawa

हिंदी (आधार) (कोड सं. 302) कक्षा - 12वीं (2022-23) परीक्षा हेतु पाठ्यक्रम विनिर्देशन

प्रश्न-पत्र दो खण्डों - खंड 'अ' और 'ब' का होगा।

खंड 'अ' में 45 वस्तुपरक प्रश्न पूछे जाएँगे जिनमें से केवल 40 प्रश्नों के ही उत्तर देने होंगे।

खंड 'ब' में वर्णनात्मक प्रश्न पूछे जाएँगे। प्रश्नों में उचित आंतरिक विकल्प दिए जाएँगे।

भारांक 100

निर्धारित समय 3 घंटे

खंड अ (वस्तुपरक प्रश्न)		भार
विषयवस्तु		
1	अपठित गद्यांश	15
	अ एक अपठित गद्यांश (अधिकतम 300 शब्दों का) (1 अंक x 10 प्रश्न)	10
	ब दो अपठित पद्यांशों में से कोई एक पद्यांश (अधिकतम 150 शब्दों का) (1 अंक x 5 प्रश्न)	05
2	पाठ्यपुस्तक अभिव्यक्ति और माध्यम की इकाई एक से पाठ संख्या 3, 4 तथा 5 पर आधारित	05
	बहुविकल्पात्मक प्रश्न (1 अंक x 5 प्रश्न)	05
3	पाठ्यपुस्तक आरोह भाग - 2 से बहुविकल्पात्मक प्रश्न	10
	अ पठित काव्यांश पर पाँच बहुविकल्पी प्रश्न (1 अंक x 05 प्रश्न)	05
	ब पठित गद्यांश पर पाँच बहुविकल्पी प्रश्न (1 अंक x 05 प्रश्न)	05
4	पूरक पाठ्यपुस्तक वितान भाग-2 से बहुविकल्पात्मक प्रश्न	10
	अ पठित पाठों पर दस बहुविकल्पी प्रश्न (1 अंक x 10 प्रश्न)	10
खंड - ब (वर्णनात्मक प्रश्न)		भार
विषयवस्तु		
5	पाठ्यपुस्तक अभिव्यक्ति और माध्यम से जनसंचार और सृजनात्मक लेखन पाठ संख्या 3, 4, 5, 11, 12 तथा 13 पर आधारित	20
	1 दिए गए चार अप्रत्याशित विषयों में से किसी एक विषय पर लगभग 120 शब्दों में रचनात्मक लेखन (6 अंक x 1 प्रश्न)	06
	2 कहानी का नाट्यरूपांतरण / रेडियो नाटक / अप्रत्याशित विषयों पर लेखन पर आधारित दो प्रश्न (3 अंक x 2 प्रश्न) (विकल्प सहित) (लगभग 60 शब्दों में)	06
	3 पत्रकारिता और जनसंचार माध्यमों के लिए लेखन पर आधारित तीन में से दो प्रश्न (4 अंक x 2 प्रश्न) (विकल्प सहित) (लगभग 80 शब्दों में)	08
6	पाठ्यपुस्तक आरोह भाग - 2	20

PRINCIPAL
St. Peter's Sr. Sec. School
Ke-1, Jaswant Nagar, Etawal

Accountancy (Code No.055)

Course Structure

Class-XI (2022-23)

Theory: 80 Marks

3 Hours

Project: 20 Marks

Units	Periods	Marks
Part A: Financial Accounting-1		
Unit-1: Theoretical Framework	25	12
Unit-2: Accounting Process	115	44
Part B: Financial Accounting-II		
Unit-3: Financial Statements of Sole Proprietorship	60	24
Part C: Project Work	20	20

PART A: FINANCIAL ACCOUNTING - I

Unit-1: Theoretical Frame Work

Units/Topics	Learning Outcomes
Introduction to Accounting <ul style="list-style-type: none">Accounting- concept, meaning, as a source of information, objectives, advantages and limitations, types of accounting information; users of accounting information and their needs. Qualitative Characteristics of Accounting Information. Role of Accounting in Business.Basic Accounting Terms- Entity, Business Transaction, Capital, Drawings. Liabilities (Non Current and Current). Assets (Non Current, Current); Expenditure (Capital and Revenue), Expense, Revenue, Income, Profit, Gain, Loss, Purchase, Sales, Goods, Stock, Debtor, Creditor, Voucher, Discount (Trade discount and Cash Discount) Theory Base of Accounting <ul style="list-style-type: none">Fundamental accounting assumptions: GAAP: ConceptBasic accounting concept : Business Entity,	After going through this Unit, the students will be able to: <ul style="list-style-type: none">describe the meaning, significance, objectives, advantages and limitations of accounting in the modern economic environment with varied types of business and non-business economic entities.identify / recognise the individual(s) and entities that use accounting information for serving their needs of decision making.explain the various terms used in accounting and differentiate between different related terms like current and non-current, capital and revenue.give examples of terms like business transaction, liabilities, assets, expenditure and purchases.explain that sales/purchases include both cash and credit sales/purchases relating to the accounting year.

PRINCIPAL
St. Peter's Sr. Sec. School
Kesth, Jaswant Nagar, Etawah

Accountancy (Code No. 055)
Class-XII (2022-23)

Theory: 80 Marks

Project: 20 Marks

3 Hours

Units		Periods	Marks
Part A	Accounting for Partnership Firms and Companies		
	Unit 1. Accounting for Partnership Firms	105	36
	Unit 2. Accounting for Companies	45	24
		150	60
Part B	Financial Statement Analysis		
	Unit 3. Analysis of Financial Statements	30	12
	Unit 4. Cash Flow Statement	20	8
		50	20
Part C	Project Work	20	20
	Project work will include:		
	Project File	4 Marks	
	Written Test	12 Marks (One Hour)	
	Viva Voce	4 Marks	
Or			
Part B	Computerized Accounting		
	Unit 4. Computerized Accounting	50	20
Part C	Practical Work	20	20
	Practical work will include:		
	Practical File 4 Marks		
	Practical Examination 12 Marks (One Hour)		
	Viva Voce 4 Marks		


PRINCIPAL
 St. Peter's Sr. Sec. School
 K. Jh. Jaswant Nagar, Etawah

BUSINESS STUDIES (Code No. 054)
CLASS–XI (2022-23)

Theory: 80 Marks
Project: 20 Marks

3 Hours


Units		Periods	Marks
Part A	Foundations of Business		
1	Nature and Purpose of Business	18	16
2	Forms of Business Organisations	24	
3	Public, Private and Global Enterprises	18	14
4	Business Services	18	
5	Emerging Modes of Business	10	10
6	Social Responsibility of Business and Business Ethics	12	
	Total	100	40
Part B	Finance and Trade		
7	Sources of Business Finance	30	20
8	Small Business	16	
9	Internal Trade	30	20
10	International Business	14	
	Total	90	40
	Project Work (One)	30	20

Part A: Foundation of Business

Concept includes meaning and features

Unit 1: Evolution and Fundamentals of Business

Content	After going through this unit, the student/ learner would be able to:
History of Trade and Commerce in India: Indigenous Banking System, Rise of Intermediaries, Transport, Trading Communities: Merchant Corporations, Major Trade Centres, Major Imports and Exports, Position of Indian Sub-Continent in the World Economy.	<ul style="list-style-type: none"> To acquaint the History of Trade and Commerce in India
Business – meaning and characteristics	<ul style="list-style-type: none"> Understand the meaning of business with special reference to economic and non-economic activities. Discuss the characteristics of business.
Business, profession and employment-Concept	<ul style="list-style-type: none"> Understand the concept of business, profession and employment. Differentiate between business, profession and employment.


PRINCIPAL
 St. Peter's Sr. Sec. School
 Kesth, Jaswant Nagar, Etawah

Business Studies
CLASS–XII (2022-23)

Theory: 80 Marks
Project: 20 Marks

3 Hours

Units		Periods	Marks
Part A	Principles and Functions of Management		
1.	Nature and Significance of Management	12	16
2	Principles of Management	14	
3	Business Environment	12	
4	Planning	14	14
5	Organising	15	
6	Staffing	16	20
7	Directing	15	
8	Controlling	12	
	Total	110	50
Part B	Business Finance and Marketing		
9	Financial Management	20	15
10	Financial Markets	18	
11	Marketing Management	30	15
12	Consumer Protection	12	
	Total	80	30
Part C	Project Work (One)	30	20

Part A: Principles and Functions of Management

Unit 1: Nature and Significance of Management

Concept	After going through this unit, the student/ learner would be able to:
Management - concept, objectives, and importance	<ul style="list-style-type: none"> Understand the concept of management. Explain the meaning of 'Effectiveness and Efficiency. Discuss the objectives of management. Describe the importance of management.
Management as Science, Art and Profession	<ul style="list-style-type: none"> Examine the nature of management as a science, art and profession.
Levels of Management	<ul style="list-style-type: none"> Understand the role of top, middle and lower levels of management
Management functions-planning, organizing, staffing, directing and controlling	<ul style="list-style-type: none"> Explain the functions of management
Coordination- concept and importance	<ul style="list-style-type: none"> Discuss the concept and


PRINCIPAL
 St. Peter's Sr. Sec. School
 Kesth, Jaswant Nagar

ECONOMICS (030)
CLASS – XI (2022-23)

Theory: 80 Marks

Project: 20 Marks

3 Hours

Units		Marks	Periods
Part A	Statistics for Economics		
	Introduction	15	10
	Collection, Organisation and Presentation of Data		30
	Statistical Tools and Interpretation	25	50
		40	
Part B	Introductory Microeconomics		
	Introduction	04	10
	Consumer's Equilibrium and Demand	15	40
	Producer Behaviour and Supply	15	35
	Forms of Market and Price Determination under perfect competition with simple applications	06	25
		40	
			200
Part C	Project Work	20	20

Part A: Statistics for Economics

In this course, the learners are expected to acquire skills in collection, organisation and presentation of quantitative and qualitative information pertaining to various simple economic aspects systematically. It also intends to provide some basic statistical tools to analyse, and interpret any economic information and draw appropriate inferences. In this process, the learners are also expected to understand the behaviour of various economic data.

Unit 1: Introduction

10 Periods

What is Economics?

Meaning, scope, functions and importance of statistics in Economics

Unit 2: Collection, Organisation and Presentation of data

30 Periods

Collection of data - sources of data - primary and secondary; how basic data is collected with concepts of Sampling; methods of collecting data; some important sources of secondary data: Census of India and National Sample Survey Organisation.

Organisation of Data: Meaning and types of variables; Frequency Distribution.

ECONOMICS
CLASS - XII (2022-23)

Theory: 80 Marks
Project: 20 Marks

3 Hours

Units	Marks	Periods
Part A		
Introductory Macroeconomics		
National Income and Related Aggregates	10	30
Money and Banking	06	15
Determination of Income and Employment	12	30
Government Budget and the Economy	06	17
Balance of Payments	06	18
	40	
Part B		
Indian Economic Development		
Development Experience (1947-90) and Economic Reforms since 1991	12	28
Current Challenges facing Indian Economy	20	50
Development Experience of India – A Comparison with Neighbours	08	12
Theory Paper (40+40 = 80 Marks)	40	
		200
Part C		
Project Work	20	20

Part A: Introductory Macroeconomics

Unit 1: National Income and Related Aggregates

30 Periods

What is Macroeconomics?

Basic concepts in macroeconomics: consumption goods, capital goods, final goods, intermediate goods; stocks and flows; gross investment and depreciation.

Circular flow of income (two sector model); Methods of calculating National Income - Value Added or Product method, Expenditure method, Income method.

Aggregates related to National Income:

Gross National Product (GNP), Net National Product (NNP), Gross Domestic Product (GDP) and Net Domestic Product (NDP) - at market price, at factor cost; Real and Nominal GDP.


GDP and Welfare

PHYSICS (Code No. 042)
COURSE STRUCTURE
Class XI – 2022-23 (Theory)

Time: 3 hrs.

Max Marks: 70

		No. of Periods	Marks
Unit-I	Physical World and Measurement	08	23
	Chapter-2: Units and Measurements		
Unit-II	Kinematics	24	
	Chapter-3: Motion in a Straight Line		
	Chapter-4: Motion in a Plane		
Unit-III	Laws of Motion	14	
	Chapter-5: Laws of Motion		
Unit-IV	Work, Energy and Power	14	
	Chapter-6: Work, Energy and Power		
Unit-V	Motion of System of Particles and Rigid Body	18	
	Chapter-7: System of Particles and Rotational Motion		
Unit-VI	Gravitation	12	
	Chapter-8: Gravitation		
Unit-VII	Properties of Bulk Matter	24	20
	Chapter-9: Mechanical Properties of Solids		
	Chapter-10: Mechanical Properties of Fluids		
	Chapter-11: Thermal Properties of Matter		
Unit-VIII	Thermodynamics	12	
	Chapter-12: Thermodynamics		
Unit-IX	Behaviour of Perfect Gases and Kinetic Theory of Gases	08	
	Chapter-13: Kinetic Theory		
Unit-X	Oscillations and Waves	26	
	Chapter-14: Oscillations		
	Chapter-15: Waves		
Total		160	70

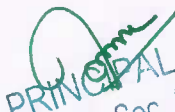

PRINCIPAL
 St. Peter's Sr. Sec. School
 Kesth, Jaswant Nagar, Etawah

CLASS XII (2022-23)**PHYSICS (THEORY)**

Time: 3 hrs.

Max Marks: 70

		No. of Periods	Marks
Unit-I	Electrostatics		
	Chapter-1: Electric Charges and Fields	26	16
	Chapter-2: Electrostatic Potential and Capacitance		
Unit-II	Current Electricity		
	Chapter-3: Current Electricity	18	
Unit-III	Magnetic Effects of Current and Magnetism		
	Chapter-4: Moving Charges and Magnetism	25	17
	Chapter-5: Magnetism and Matter		
Unit-IV	Electromagnetic Induction and Alternating Currents		
	Chapter-6: Electromagnetic Induction	24	
	Chapter-7: Alternating Current		
Unit-V	Electromagnetic Waves		
	Chapter-8: Electromagnetic Waves	04	
Unit-VI	Optics		
	Chapter-9: Ray Optics and Optical Instruments	30	18
	Chapter-10: Wave Optics		
Unit-VII	Dual Nature of Radiation and Matter		
	Chapter-11: Dual Nature of Radiation and Matter	8	12
Unit-VIII	Atoms and Nuclei		
	Chapter-12: Atoms	15	
	Chapter-13: Nuclei		
Unit-IX	Electronic Devices		
	Chapter-14: Semiconductor Electronics: Materials, Devices and Simple Circuits	10	7
Total		160	70


PRINCIPAL
St. Peter's Sr. Sec. School
Kesth, Jaswant Nagar, Etawah

PHYSICAL EDUCATION (048)

Class XI (2022–23)

Theory

Max. Marks 70

Unit I Changing Trends & Career in Physical Education

- Concept, Aims & Objectives of Physical Education
- Changing Trends in Sports- playing surface, wearable gears and sports equipment, technological advancements
- Career Options in Physical Education
- Khelo-India and Fit-India Program

Unit II Olympism

- Ancient and Modern Olympics
- Olympism – Concept and Olympics Values (Excellence, Friendship & Respect)
- Olympics - Symbols, Motto, Flag, Oath, and Anthem
- Olympic Movement Structure - IOC, NOC, IFS, Other members

Unit III Yoga

- Meaning & Importance of Yoga
- Introduction to Ashtanga Yoga
- Introduction to Yogic Kriyas (Shat Karma)

Unit IV Physical Education & Sports for CWSN (Children with Special Needs - Divyang)

- Concept of Disability and Disorder
- Types of Disability, its causes & nature (Intellectual disability, Physical disability)
- Aim & Objective of Adaptive Physical Education
- Role of various professionals for children with special needs (Counsellor, Occupational Therapist, Physiotherapist, Physical Education Teacher, Speech Therapist & Special Educator)

Unit V Physical Fitness, Health and Wellness


- Meaning and Importance of Wellness, Health and Physical Fitness
- Components/Dimensions of Wellness, Health and Physical Fitness
- Traditional Sports & Regional Games for promoting wellness

Unit VI Test, Measurement & Evaluation

- Concept of Test, Measurement & Evaluation in Physical Education & sports.
- Classification of Test in Physical Education and Sports.
- Test administration guidelines in physical education and sports

Unit VII Fundamentals of Anatomy, Physiology in Sports

- Definition and Importance of Anatomy and Physiology in exercise and sports
- Functions of Skeletal system, classification of bone and types of joints.
- Function and Structure of Circulatory system and heart.
- Function and Structure of Respiratory system.


PRINCIPAL
St. Peter's Sr. Sec. School
Kesth, Jaswant Nagar, Etawa

PHYSICAL EDUCATION (048)

Class XII (2022–23)

Theory

Max. Marks 70

Unit I Management of Sporting Events

- Functions of Sports Events Management (Planning, Organising, Staffing, Directing & Controlling)
- Various Committees & their Responsibilities (pre; during & post)
- Fixtures and its Procedures – Knock-Out (Bye & Seeding) & League (Staircase & Cyclic)

Unit II Children & Women in Sports

- Common Postural Deformities - Knock Knee; Bow Legs; Flat Foot; Round Shoulders; Lordosis, Kyphosis, and Scoliosis and their corrective measures
- Special consideration (Menarche & Menstrual Dysfunction)
- Female Athletes Triad (Osteoporosis, Amenorrhea, Eating Disorders)

Unit III Yoga as Preventive measure for Lifestyle Disease

- Obesity: Procedure, Benefits & Contraindications for Tadasana, Katichakrasana, Pavanmuktasana, Matsayasana, Halasana, Pachimottansana, Ardha – Matsyendrasana, Dhanurasana, Ushtrasana, Suryabedhan pranayama.
- Diabetes: Procedure, Benefits & Contraindications for Katichakrasana, Pavanmuktasana, Bhujangasana, Shalabhasana, Dhanurasana, Supta-vajarasana, Paschimottanasana, Ardha-Mastendrasana, Mandukasana, Gomukasana, Yogmudra, Ushtrasana, Kapalabhati.
- Asthma: Procedure, Benefits & Contraindications for Tadasana, Urdhwahastottansana, UttanMandukasana, Bhujangasana, Dhanurasana, Ushtrasana, Vakrasana, Kapalabhati, Gomukhasana Matsyaasana, Anuloma-Viloma.
- Hypertension: Procedure, Benefits & Contraindications for Tadasana, Katichakrasana, Uttanpadasana, Ardha Halasana, Sarala Matyasana, Gomukhasana, UttanMandukasana, Vakrasana, Bhujangasana, Makarasana, Shavasana, Nadi-shodhanapranayam, Sitlipranayam.

Unit IV Physical Education & Sports for CWSN (Children with Special Needs - Divyang)

- Organizations promoting Disability Sports (Special Olympics; Paralympics; Deaflympics)
- Advantages of Physical Activities for children with special needs.
- Strategies to make Physical Activities assessable for children with special needs.

Unit V Sports & Nutrition

- Concept of balance diet and nutrition
- Macro and Micro Nutrients: Food sources & functions
- Nutritive & Non-Nutritive Components of Diet

Unit VI Test & Measurement in Sports

- Fitness Test – SAI Khelo India Fitness Test in school:
 - Age group 5-8 yrs/ class 1-3: BMI, Flamingo Balance Test, Plate Tapping Test
 - Age group 9-18yrs/ class 4-12: BMI, 50mt Speed test, 600mt Run/Walk, Sit & Reach flexibility test, Strength Test (Abdominal Partial Curl Up, Push-Ups for boys, Modified Push-Ups for girls).
- Computing Basal Metabolic Rate (BMR)

PRINCIPAL
St. Peter's Sr. Sec. School
Kesth, Jaswant Nagar, Et.

Mathematics (041)

COURSE STRUCTURE

CLASS XI (2022-23)

One Paper

Total Period–240 [35 Minutes each]

Three Hours

Max Marks: 80

No.	Units	No. of Periods	Marks
I.	Sets and Functions	60	23
II.	Algebra	50	25
III.	Coordinate Geometry	50	12
IV.	Calculus	40	08
V.	Statistics and Probability	40	12
	Total	240	80
	Internal Assessment		20

*No chapter/unit-wise weightage. Care to be taken to cover all the chapters.

Unit-I: Sets and Functions

1. Sets

(20) Periods

Sets and their representations, Empty set, Finite and Infinite sets, Equal sets, Subsets, Subsets of a set of real numbers especially intervals (with notations). Universal set. Venn diagrams. Union and Intersection of sets. Difference of sets. Complement of a set. Properties of Complement.

2. Relations & Functions

(20) Periods

Ordered pairs. Cartesian product of sets. Number of elements in the Cartesian product of two finite sets. Cartesian product of the set of reals with itself (upto $R \times R \times R$). Definition of relation, pictorial diagrams, domain, co-domain and range of a relation. Function as a special type of relation. Pictorial representation of a function, domain, co-domain and range of a function. Real valued functions, domain and range of these functions, constant, identity, polynomial, rational, modulus, signum, exponential, logarithmic and greatest integer functions, with their graphs. Sum, difference, product and quotients of functions.

3. Trigonometric Functions

(20) Periods

Positive and negative angles. Measuring angles in radians and in degrees and conversion from one measure to another. Definition of trigonometric functions with the help of unit circle.

PRINCIPAL
St. Peter's Sr. Sec. School
Kesth, Jaswant Nagar, Etawah

CLASS-XII
(2022 23)

One Paper

Max Marks: 80

No.	Units	No. of Periods	Marks
I.	Relations and Functions	30	08
II.	Algebra	50	10
III.	Calculus	80	35
IV.	Vectors and Three - Dimensional Geometry	30	14
V.	Linear Programming	20	05
VI.	Probability	30	08
	Total	240	80
	Internal Assessment		20

Unit-I: Relations and Functions

1. Relations and Functions

15 Periods

Types of relations: reflexive, symmetric, transitive and equivalence relations. One to one and onto functions.

2. Inverse Trigonometric Functions

15 Periods

Definition, range, domain, principal value branch. Graphs of inverse trigonometric functions.

Unit-II: Algebra


1. Matrices

25 Periods

Concept, notation, order, equality, types of matrices, zero and identity matrix, transpose of a matrix, symmetric and skew symmetric matrices. Operation on matrices: Addition and multiplication and multiplication with a scalar. Simple properties of addition, multiplication and scalar multiplication. Non-commutativity of multiplication of matrices and existence of non-zero matrices whose product is the zero matrix (restrict to square matrices of order 2). Invertible matrices and proof of the uniqueness of inverse, if it exists; (Here all matrices will have real entries).

2. Determinants

25 Periods


PRINCIPAL
St. Peter's Sr. Sec. School
Kesth, Jaswant Nagar, Etawah

Computer Science

CLASS-XI

Code No. 083

2022-23

1. Learning Outcomes

Student should be able to

- develop basic computational thinking
- explain and use data types
- appreciate the notion of algorithm
- develop a basic understanding of computer systems - architecture, operating system and cloud computing
- explain cyber ethics, cyber safety and cybercrime
- Understand the value of technology in societies along with consideration of gender and disability issues

2. Distribution of Marks

Unit No.	Unit Name	Marks	Periods	
			Theory	Practical
I	Computer Systems and Organisation	10	10	10
II	Computational Thinking and Programming - 1	45	80	60
III	Society, Law and Ethics	15	20	---
	Total	70	110	70

3. Unit wise Syllabus

Unit I: Computer Systems and Organisation

- Basic Computer Organisation: Introduction to computer system, hardware, software, input device, output device, CPU, memory (primary, cache and secondary), units of memory (Bit, Byte, KB, MB, GB, TB, PB)
- Types of software: system software (operating systems, system utilities, device drivers), programming tools and language translators (assembler, compiler & interpreter), application software
- Operating system (OS): functions of operating system, OS user interface
- Boolean logic: NOT, AND, OR, NAND, NOR, XOR, truth table, De Morgan's laws and logic circuits
- Number system: Binary, Octal, Decimal and Hexadecimal number system; conversion between number systems.
- Encoding schemes: ASCII, ISCII and UNICODE (UTF8, UTF32)

PRINCIPAL
St. Peter's Sr. Sec. School
Jaswant Nagar, Etawah

Computer Science
CLASS-XII
Code No. 083
2022-23

1. Prerequisites

Computer Science- Class XI

2. Learning Outcomes

Student should be able to

- a) apply the concept of function.
- b) explain and use the concept of file handling.
- c) use basic data structure: Stacks
- d) explain basics of computer networks.
- e) use Database concepts, SQL along with connectivity between Python and SQL.


3. Distribution of Marks:

Unit No.	Unit Name	Marks	Periods	
			Theory	Practical
I	Computational Thinking and Programming - 2	40	70	50
II	Computer Networks	10	15	---
III	Database Management	20	25	20
	Total	70	110	70

4. Unit wise Syllabus

Unit I: Computational Thinking and Programming – 2

- Revision of Python topics covered in Class XI.
- Functions: types of function (built-in functions, functions defined in module, user defined functions), creating user defined function, arguments and parameters, default parameters, positional parameters, function returning value(s), flow of execution, scope of a variable (global scope, local scope)
- Introduction to files, types of files (Text file, Binary file, CSV file), relative and absolute paths
- Text file: opening a text file, text file open modes (r, r+, w, w+, a, a+), closing a text file, opening a file using with clause, writing/appending data to a text file using write() and writelines(), reading from a text file using read(), readline() and readlines(), seek and tell methods, manipulation of data in a text file


PRINCIPAL
St. Peter's Sr. Sec. School
Kesth, Jaswant Nagar, Etawah

Chemistry (043)

CLASS-XI (THEORY) (2022-23)

Time:3Hours

Total Marks70

S.NO	UNIT	PERIODS	MARKS
1	Some Basic Concepts of Chemistry	18	7
2	Structure of Atom	20	9
3	Classification of Elements and Periodicity in Properties	12	6
4	Chemical Bonding and Molecular Structure	20	7
5	Chemical Thermodynamics	23	9
6	Equilibrium	20	7
7	Redox Reactions	9	4
8	Organic Chemistry: Some basic Principles and Techniques	20	11
9	Hydrocarbons	18	10
	TOTAL	160	70

Unit I: Some Basic Concepts of Chemistry

18 Periods

General Introduction: Importance and scope of Chemistry. Nature of matter, laws of chemical combination, Dalton's atomic theory: concept of elements, atoms and molecules. Atomic and molecular masses, mole concept and molar mass, percentage composition, empirical and molecular formula, chemical reactions, stoichiometry and calculations based on stoichiometry.

Unit II: Structure of Atom

20 Periods

Discovery of Electron, Proton and Neutron, atomic number, isotopes and isobars. Thomson's model and its limitations. Rutherford's model and its limitations, Bohr's model and its limitations, concept of shells and subshells, dual nature of matter and light, de Broglie's relationship, Heisenberg uncertainty principle, concept of orbitals, quantum numbers, shapes of s, p and d orbitals, rules for filling electrons in orbitals - Aufbau principle, Pauli's exclusion principle and Hund's rule, electronic configuration of atoms, stability of half-filled and completely filled orbitals.

Unit III: Classification of Elements and Periodicity in Properties


12 Periods

Significance of classification, brief history of the development of periodic table, modern periodic law and the present form of periodic table, periodic trends in properties of elements -atomic radii, ionic radii, inert gas radii, ionization enthalpy, electron gain enthalpy, electronegativity, valency. Nomenclature of elements with atomic number greater than 100.

Unit IV: Chemical Bonding and Molecular Structure

20 Periods

Valence electrons, ionic bond, covalent bond, bond parameters, Lewis's structure, polar character of covalent bond, covalent character of ionic bond, valence bond theory, resonance, geometry of covalent molecules, VSEPR theory, concept of hybridization,


PRINCIPAL
St. Peter's Sr. Sec. School
Kesth, Jaswant Nagar, Etawah

CLASS XII (2022-23) (THEORY)**Time: 3 Hours****70 Marks**

S.No.	Title	No. of Periods	Marks
1	Solutions	15	7
2	Electrochemistry	18	9
3	Chemical Kinetics	15	7
4	d -and f -Block Elements	18	7
5	Coordination Compounds	18	7
6	Haloalkanes and Haloarenes	15	6
7	Alcohols, Phenols and Ethers	14	6
8	Aldehydes, Ketones and Carboxylic Acids	15	8
9	Amines	14	6
10	Biomolecules	18	7
	Total	160	70

Unit II: Solutions**15 Periods**

Types of solutions, expression of concentration of solutions of solids in liquids, solubility of gases in liquids, solid solutions, Raoult's law, colligative properties - relative lowering of vapour pressure, elevation of boiling point, depression of freezing point, osmotic pressure, determination of molecular masses using colligative properties, abnormal molecular mass, Van't Hoff factor.

Unit III: Electrochemistry**18 Periods**

Redox reactions, EMF of a cell, standard electrode potential, Nernst equation and its application to chemical cells, Relation between Gibbs energy change and EMF of a cell, conductance in electrolytic solutions, specific and molar conductivity, variations of conductivity with concentration, Kohlrausch's Law, electrolysis and law of electrolysis (elementary idea), dry cell-electrolytic cells and Galvanic cells, lead accumulator, fuel cells, corrosion.

Unit IV: Chemical Kinetics**15 Periods**

Rate of a reaction (Average and instantaneous), factors affecting rate of reaction: concentration, temperature, catalyst; order and molecularity of a reaction, rate law and specific rate constant, integrated rate equations and half-life (only for zero and first order reactions), concept of collision theory (elementary idea, no mathematical treatment), activation energy, Arrhenius equation.

Unit VIII: d and f Block Elements**18 Periods**

General introduction, electronic configuration, occurrence and characteristics of transition metals, general trends in properties of the first-row transition metals – metallic character, ionization enthalpy, oxidation states, ionic radii, colour, catalytic property, magnetic

PRINCIPAL
 St. Peter's Sr. Sec. School
 15th, Jaswant Nagar, Etawah

BIOLOGY (Code No. 044)
Classes XI & XII (2022-23)

The present curriculum provides the students with updated concepts along with an extended exposure to contemporary areas of the subject. The curriculum also aims at emphasizing the underlying principles that are common to animals, plants and microorganisms as well as highlighting the relationship of Biology with other areas of knowledge. The format allows a simple, clear, sequential flow of concepts. It relates the study of biology to real life through the developments in use of technology. It links the discoveries and innovations in biology to everyday life such as environment, industry, health and agriculture. The updated curriculum also focuses on understanding and application of scientific principles, while ensuring that ample opportunities and scope for learning and appreciating basic concepts continue to be available within its framework. The prescribed syllabus is expected to:

- promote understanding of basic principles of Biology
- encourage learning of emerging knowledge and its relevance to individual and society
- promote rational/scientific attitude towards issues related to population, environment and development
- enhance awareness about environmental issues, problems and their appropriate solutions
- create awareness amongst the learners about diversity in the living organisms and developing respect for other living beings
- appreciate that the most complex biological phenomena are built on essentially simple processes

It is expected that the students would get an exposure to various branches of Biology in the curriculum in a more contextual and systematic manner as they study its various units.

BIOLOGY (Code No. 044)
COURSE STRUCTURE
CLASS XI (2022 -23) (THEORY)

Time: 03 Hours

Max. Marks: 70

Unit	Title	Marks
I	Diversity of Living Organisms	15
II	Structural Organization in Plants and Animals	10
III	Cell: Structure and Function	15
IV	Plant Physiology	12
V	Human Physiology	18
	Total	70

Biology (044)

CLASS XII (2022-23) (THEORY)

Time: 03 Hours

Max. Marks: 70

Unit	Title	Marks
VI	Reproduction	16
VII	Genetics and Evolution	20
VIII	Biology and Human Welfare	12
IX	Biotechnology and its Applications	12
X	Ecology and Environment	10
	Total	70

Unit-VI Reproduction

Chapter-2: Sexual Reproduction in Flowering Plants

Flower structure; development of male and female gametophytes; pollination - types, agencies and examples; out breeding devices; pollen-pistil interaction; double fertilization; post fertilization events - development of endosperm and embryo, development of seed and formation of fruit; special modes- apomixis, parthenocarpy, polyembryony; Significance of seed dispersal and fruit formation.

Chapter-3: Human Reproduction

Male and female reproductive systems; microscopic anatomy of testis and ovary; gametogenesis -spermatogenesis and oogenesis; menstrual cycle; fertilisation, embryo development upto blastocyst formation, implantation; pregnancy and placenta formation (elementary idea); parturition (elementary idea); lactation (elementary idea).

Chapter-4: Reproductive Health

Need for reproductive health and prevention of Sexually Transmitted Diseases (STDs); birth control - need and methods, contraception and medical termination of pregnancy (MTP); amniocentesis; infertility and assisted reproductive technologies - IVF, ZIFT, GIFT (elementary idea for general awareness).

Unit-VII Genetics and Evolution

Chapter-5: Principles of Inheritance and Variation

Heredity and variation: Mendelian inheritance; deviations from Mendelism – incomplete dominance, co-dominance, multiple alleles and inheritance of blood groups, pleiotropy; elementary idea of polygenic inheritance; chromosome theory of inheritance; chromosomes and genes; Sex determination - in humans, birds and honey bee; linkage and crossing over; sex linked inheritance - haemophilia, colour blindness; Mendelian disorders in humans - thalassemia; chromosomal disorders in humans; Down's syndrome, Turner's and Klinefelter's syndromes.

Chapter-6: Molecular Basis of Inheritance

Search for genetic material and DNA as genetic material; Structure of DNA and RNA; DNA packaging; DNA replication; Central Dogma; transcription, genetic code, translation; gene