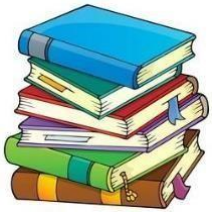
AIR FORCE GOLDEN JUBILEE INSTITUTE
SYLLABUS 2024-25
CLASS – XI



SCIENCE

ENGLISH

TERM I (APRIL – SEPTEMBER)

PERIODIC TEST – I

Reading Comprehension : (Descriptive & Case based).

Literature – Hornbill : The Portrait of a Lady, We're Not Afraid to Die…if We Can All Be Together.

Poems : A Photograph, The Laburnum Top.

Snapshots : The Summer of the Beautiful White Horse, The Address.

Creative Writing Skills : Speech, Poster, Classified Advertisements.

Grammar : Tenses, Clauses (Integrated Grammar).

MID TERM (EXAM)

Reading Comprehension : (Descriptive & Case based), Note-Making and Summary.

Literature – Hornbill : The Portrait of a Lady, We're Not Afraid to Die... If We Can All Be Together, Discovering Tut : the Saga Continues.

Poem : A Photograph, Laburnum Top, The Voice of the Rain.

Snapshots : The Summer of the Beautiful White Horse, The Address, Mother's Day.

Creative Writing Skills : Classified Advertisements, Poster, Speech, Debate.

Grammar : Tenses, Clauses (Integrated Grammar).

TERM II (OCTOBER - MARCH)

PERIODIC TEST – II

Reading Comprehension : (Descriptive & Case based), Note-Making and Summary.

Literature – Hornbill : Discovering Tut : the Saga Continues, The Adventure.

Poem : The Voice of the Rain, Childhood.

Snapshots : Birth, Mother's Day.

Creative Writing Skills : Classified Advertisements, Poster, Debate, Speech.

Grammar :Tenses, Clauses (Transformation of sentences / Reordering of Sentences, Gap filling).

ANNUAL EXAM

Reading Comprehension : Two Passages (Descriptive & Case based), Note-Making and Summary.

Literature – Hornbill : The Portrait of a Lady, We're Not Afraid to Die... If We Can All Be Together, Discovering Tut : the Saga Continues, The Adventure, Silk Road.

Poem : A Photograph, The Laburnum Top, The Voice of the Rain, Childhood, Father to Son.

Snapshots : The Summer of the Beautiful White Horse, The Address, Mother's Day, Birth, The Tale of Melon City.

Creative Writing Skills : Poster, Classified Advertisements, Debate, Speech.

Grammar : Tenses, Clauses (Transformation of sentences / Reordering of Sentences, Gap filling).

PHYSICS

TERM I (APRIL- SEPTEMBER)

PERIODIC TEST – I

Chapter-1: Units and measurements
Chapter-2: Motion in a straight line

MID TERM (EXAM)

Chapter-1: Units and measurements
Chapter-2: Motion in a straight line
Chapter-3: Motion in a plane
Chapter-4: Laws of Motion
Chapter-5: Work, Energy and Power
Chapter-6: System of Particles and Rotational Motion

TERM II (OCTOBER- MARCH)

PERIODIC TEST – II

Chapter-7: Gravitation
Chapter-8: Mechanical Properties of Solids
Chapter-9: Mechanical Properties of Fluids

ANNUAL EXAM

Chapter-1: Units and measurements
Chapter-2: Motion in a straight line
Chapter-3: Motion in a plane
Chapter-4: Laws of Motion
Chapter-5: Work, Energy and Power
Chapter-6: System of Particles and Rotational Motion
Chapter-7: Gravitation
Chapter-8: Mechanical Properties of Solids
Chapter-9: Mechanical Properties of Fluids
Chapter-10: Thermal Properties of Matter
Chapter-11 Thermodynamics
Chapter-12: Kinetic Theory
Chapter-13: Oscillations
Chapter-14: Waves

CHEMISTRY

TERM I (APRIL- SEPTEMBER)

PERIODIC TEST – I

UNIT-1 SOME BASIC CONCEPT OF CHEMISTRY
UNIT -2 STRUCTURE OF ATOM (2.1 TO 2.4)

MID TERM (EXAM)

UNIT-1 SOME BASIC CONCEPT OF CHEMISTRY
UNIT -2 STRUCTURE OF ATOM
UNIT -3 CLASSIFICATION OF ELEMENTS AND PERIODICITY IN PROPERTIES
UNIT -4 CHEMICAL BONDING AND MOLECULAR STRUCTURE
UNIT-7 REDO0X REACTIONS

TERM II (OCTOBER- MARCH)

PERIODIC TEST – II

UNIT-5 THERMODYNAMICS
UNIT-6 EQUILIBRIUM

ANNUAL EXAM

UNIT-1 SOME BASIC CONCEPT OF CHEMISTRY
UNIT -2 STRUCTURE OF ATOM
UNIT -3 CLASSIFICATION OF ELEMENTS AND PERIODICITY IN PROPERTIES
UNIT -4 CHEMICAL BONDING AND MOLECULAR STRUCTURE
UNIT-5 THERMODYNAMICS
UNIT-6 EQUILIBRIUM
UNIT-7 REDO0X REACTIONS
UNIT-8 ORGANIC CHEMISTRY- SOME BASIC PRINCIPLES AND TECHNIQUES
UNIT-9 HYDROCARBONS

MATHEMATICS

TERM I (APRIL- SEPTEMBER)

PERIODIC TEST – I

Chapter 1: Sets

Chapter 2: Relations & Functions

Chapter 4: Complex Numbers & Quadratic Equations

MID TERM (EXAM)

Chapter 1: Sets
Chapter 2: Relations & Functions
Chapter 3: Trigonometric Functions
Chapter 4: Complex Numbers & Quadratic Equations
Chapter 5: Linear Inequalities
Chapter 6: Permutations & Combinations

TERM II (OCTOBER- MARCH)

PERIODIC TEST – II

Chapter 7: Binomial Theorem
Chapter 8: Sequence & Series
Chapter 9: Straight Lines

ANNUAL EXAM

Chapter 1: Sets
Chapter 2: Relations & Functions
Chapter 3: Trigonometric Functions

Chapter 4 : Complex Numbers & Quadratic Equations
Chapter 5 : Linear Inequalities
Chapter 6 : Permutations & Combinations
Chapter 7 : Binomial Theorem
Chapter 8 : Sequence & Series
Chapter 9 : Straight Line
Chapter 10: Conic Section
Chapter 11: Introduction to Three Dimensional Geometry
Chapter 12: Limits & Derivative
Chapter 13: Statistics
Chapter 14: Probability

BIOLOGY

TERM I (APRIL- SEPTEMBER)

UNIT I: DIVERSITY IN THE LIVING WORLD

CH 1: The Living World

CH 2: Biological Classification

CH 3: Plant Kingdom

CH 4: Animal Kingdom

UNIT 11: STRUCTURAL ORGANIZATION IN PLANTS & ANIMALS

CH 5: Morphology of Flowering Plants

CH 6: Anatomy of Flowering Plants

CH 7: Structural Organization in Animals

UNIT 111: CELL STRUCTURE & FUNCTION

CH 8: Cell, The unit of life

CH 9: Biomolecules

CH 10: Cell cycle & Cell division

PERIODIC TEST – I

UNIT I

CH 1: The living world

CH 2: Biological classification

CH 3: Plant Kingdom

MID TERM (EXAM)

CHAPTER 1 TO CHAPTER 10

TERM II (OCTOBER- MARCH)

UNIT IV: (PLANT PHYSIOLOGY)

CH 11: Photosynthesis in Higher Plants

CH 12: Respiration in Plants

CH 13: Plant Growth & Development

UNIT V: (HUMAN PHYSIOLOGY)

CH 14: Breathing & Exchange of Gases

CH 15: Body fluids & circulation

CH 16: Excretory products & their elimination

CH 17: Locomotion & Movement

CH 18: Neural Control & Coordination

CH 19: Chemical Coordination and Integration

PERIODIC TEST – II

CH 13: Plant Growth & Development

CH 14: Breathing & Exchange of Gases

ANNUAL EXAM

Complete syllabus

COMPUTER SCIENCE

TERM I (APRIL- SEPTEMBER)

Unit 1: Computer Systems and Organization

- Basic Computer Organization: Introduction to computer system, hardware, software, input/output devices, CPU, Memory (Primary, Secondary, and Cache)
- Units of memory – bit, byte, KB, MB, GB,TB, PB
- Types of Software
    - System Software – operating system – functions and user interfaces, utilities, device drivers
    - Language Translators – assembler, compiler, interpreter
    - Application Software
- Boolean Logic –
    - Logic Gates - AND, OR, NOT, NAND, NOR, XOR
    - De- Morgan's Laws
    - Truth Tables and Logic Circuits
- Number System : Binary, Octal, Decimal, and Hexadecimal number systems with conversions
- Encoding Schemes – ASCII. ISCII, and Unicode (UTF8, UTF32)

Unit 2: Computational Thinking and Programming

- Introduction to Problem-Solving – Steps for Problem-Solving , algorithms, flowcharts, pseudocodes
- Basics of Python programming –
    - Execution Modes: Interactive and Script Mode
    - Python Character Set

    - Python Tokens – Keyword, identifier, literals, operators, punctuators
    - Variables
    - Comments
- Data Types
    - Number (integer, floating point, complex)
    - Boolean
    - Sequence (strings, lists, tuples)
    - None
    - Mapping (Dictionary)
    - Mutable and Immutable data types
- Operators – arithmetic, relational, logical, assignment, augmented assignment, membership, identity, precedence of operators
- Expressions, statements, type conversion(implicit & explicit), input/output statements
- Errors - syntax, logical, runtime
- Flow of control
    - Introduction and indentation
    - Conditional statements – if, if-else, if-elif-else
    - range()
    - Looping statements – while, for
    - Jump Statements – break, continue, pass

PERIODIC TEST – I

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MID TERM (EXAM)

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    - Jump Statements – break, continue, pass

TERM II (OCTOBER- MARCH)

Unit 2: Computational Thinking and Programming

- Strings
  - Introduction
  - String operations – concatenation, repetition, membership, slicing
  - Traversing a string using loops
  - Built-in functions – len(), capitalize(), title(), lower(), upper(), count(), find(), index(), endswith(), startswith(), isalnum(), isalpha(), isdigit(), islower(), isupper(), isspace(),lstrip(), rstrip(), strip(),replace(), join(), partition(), split()
- Lists
  - Introduction, indexing
  - List operations – concatenation, repetition, membership, slicing
  - Traversing a list using loops
  - Built-in functions – len(), list(), append(), extend(), insert(), count(), index(), remove(), pop(), reverse(), sort(),sorted(), min(), max(), sum();
  - nested lists

- Tuples
  - Introduction, indexing
  - Tuple operations – concatenation, repetition, membership, slicing
  - Traversing a string using loops
  - Built-in functions – len(), tuple(), count(),index(), sorted(), min(), max(), sum(); tuple assignment
  - Nested tuple

- Dictionary
  - Introduction – key value pairs
  - assigning items using keys
  - adding and modifying an element in a dictionary
  - Built-in functions –len(), dict(), keys(), values(), items(), get(), update(),del, clear(), fromkeys(), copy(), pop(), popitem(), setdefault(), max(), min(),sorted()

- Introduction to Python Modules
  - import statement and from statement
  - math module - pi, e, sqrt(), ceil(), floor(), pow(),fabs(), sin(), cos(), tan()
  - random module - random(), randint(), randrange()
  - statistics module - mean(), median(), mode()

Unit 3: Society, Law, and Ethics

- Digital Footprints
- Netiquettes
- Data Protection
  - IPR – copyright, patent, trademark
  - Violation of IPR – Plagiarism, copyright infringement, trademark infringement
  - Open Source software and licensing (Creative Commons, GPL and Apache)
- Cyber Crime: definition, hacking, eavesdropping, phishing and fraud emails, ransomware, cyber trolls, cyber bullying

- Cyber safety: safely browsing the web, identity protection, confidentiality
- Malware: viruses, trojans, adware
- E-waste management: proper disposal of used electronic gadgets.
- Information Technology Act (IT Act)
- Technology and society: Gender and disability issues while teaching and using computers

PERIODIC TEST – II

Unit 2: Computational Thinking and Programming

- Flow of control
  - Introduction and indentation
  - Conditional statements – if, if-else, if-elif-else
  - range()
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  - Jump Statements – break, continue, pass
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ANNUAL EXAM

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ECONOMICS

TERM I (APRIL - SEPTEMBER)

PERIODIC TEST – I

Micro Economics:

Chapter 1 : Introduction
Chapter 2 : Consumer Equilibrium (upto Utility Analysis)

Statistics :

Chapter 1 : Meaning ,definition,functions importance of statistics in economics

MID TERM (EXAM)

Micro Economics:

Chapter 1 : Introduction
Chapter 2 : Consumer Equilibrium
Chapter 3 : Demand
Chapter 4 : Elasticity of Demand

Statistics :

Chapter 1 : Meaning ,definition,functions importance of statistics in economics
Chapter 2 : Collection,Organisation ,and Presentation of Data
Chapter 3 : Measures of Central tendencies- Mean

TERM II (OCTOBER - MARCH)

PERIODIC TEST – II

Micro Economics:

Chapter 5 : Production Function
Chapter 6 : Cost

Statistics :

Measures of central tendencies - Median and Mode

ANNUAL EXAM

Micro Economics:

Chapter 1 : Introduction
Chapter 2 : Consumer Equilibrium
Chapter 3 : Demand
Chapter 4 : Elasticity of Demand
Chapter 5 : Production Function
Chapter 6 : Cost
Chapter 7 : Revenue
Chapter 8 : Producer’s Equilibrium
Chapter 9 : Supply
Chapter 10 : Main Market Forms
Chapter 11 : Price Determination with Simple Application

Statistics :

As per CBSE Complete syllabus

PSYCHOLOGY

TERM I (APRIL- SEPTEMBER)

PERIODIC TEST – I

Chapter-1: What is Psychology?
Chapter-2: Methods of Enquiry in Psychology

MID TERM (EXAM)

Chapter-1: What is Psychology?
Chapter-2: Methods of Enquiry in Psychology
Chapter-4: Human Development
Vhapter-5: Sensory, Attentional and Perceptual Processes
Chapter-7: Human Memory

TERM II (OCTOBER- MARCH)

PERIODIC TEST – II

Chapter-6: Learning
Chapter-8: Thinking

ANNUAL EXAM

Chapter-1: What is Psychology?
Chapter-2: Methods of Enquiry in Psychology
Chapter-4: Human Development
Vhapter-5: Sensory, Attentional and Perceptual Processes
Chapter-6: Learning
Chapter-7: Human Memory
Chapter-8: Thinking
Chapter-9: Motivation and emotion

PHYSICAL EDUCATION

TERM I (APRIL- SEPTEMBER)

PERIODIC TEST – I

Chapter-1 :- Changing trends and career in Physical Education
Chapter-3 :- Yoga

MID TERM (EXAM)

Chapter-1 :- Changing trends and career in Physical Education
Chapter-2 :- Olympic value Education
Chapter-3 :- Yoga
Chapter-7 :- Fundamentals of Anatomy and Physiology in sports
Chapter- 10 :- Training and Doping in sports

TERM II (OCTOBER- MARCH)

PERIODIC TEST – II

Chapter- 9 :- Psychology and sports
Chapter- 5:- Physical Fitness and wellness

ANNUAL EXAM

Chapter- 1 to 10