

ಪಠ್ಯಕ್ರಮ ಮತ್ತು ಪ್ರಶ್ನೆಗಳ ಸ್ವರೂಪ
SYLLABUS AND TYPES OF QUESTIONS

ಭಾಗ-1. ಕೊಟ್ಟಿರುವ ಒಂದು ಸರಳ ಗದ್ಯಭಾಗವನ್ನು ಓದಿ, ಅದಕ್ಕೆ ಸಂಬಂಧಿಸಿದಂತೆ ನೀಡಿರುವ ಪ್ರಶ್ನೆಗಳಿಗೆ ಉತ್ತರಿಸುವುದು. (Read the passage given and answer the following questions)

ಭಾಗ-2 ವ್ಯಾಪಕಾರಿಕ ಕನ್ನಡ (General Kannada)

ಎ) ವಿರುದ್ಧ ಪದಗಳು (Opposite words), ಬಿ) ವಚನಗಳ ಬದಲಾವಣೆ (number change), ಸಿ) ಲಿಂಗ ಬದಲಾವಣೆ (change the Gender), ಡಿ) ಬಿಟ್ಟ ಸ್ಥಳಗಳನ್ನು ತುಂಬುವುದು. (Fill up the blanks), ಇ) ಅಂಕಗಳನ್ನು ಅಕ್ಷರದಲ್ಲಿ ಬರೆಯುವುದು. (numerical to words), ಎಫ್) ಸಮಾನಾರ್ಥಕ ಪದಗಳನ್ನು ಬರೆಯುವುದು. (Words with same meaning), ಜಿ) ಪ್ರಾಸಬದ್ಧ ಶಬ್ದಗಳನ್ನು ಬರೆಯುವುದು. (Rhyming words), ಹೆಚ್) ಹೊಂದಿಸಿ ಬರೆಯಿರಿ (Match the following), ಐ) ಚಿತ್ರವನ್ನು ಹೆಸರಿಸಿ. (Name the picture), ಜೆ) ಪದಗಳನ್ನು ಮರುಜೋಡಣೆ ಮಾಡಿ ವಾಕ್ಯ ರಚಿಸಿ (Re-arrange the words to form sentence)

ಭಾಗ-1 ಮಾದರಿ ಪ್ರಶ್ನೆ

ಈ ಕೆಳಗೆ ಕೊಟ್ಟಿರುವ ಗದ್ಯ ಭಾಗವನ್ನು ಓದಿ, ಪ್ರಶ್ನೆಗಳಿಗೆ ಉತ್ತರಿಸಿ
ನಾವೆಲ್ಲರೂ ಒಂದು ದಿನ ಶಾಲಾ ಪ್ರವಾಸಕ್ಕೆ ಹೊರಟೆವು. ನಮ್ಮ ಬಸ್ಸು ಸುಂದರ ಮಲೆನಾಡನ್ನು ಪ್ರವೇಶಿಸಿತು. ಪಶ್ಚಿಮ ಘಟ್ಟಗಳ ಸಾಲುಗಳನ್ನು ಗಮನಿಸಿ ಎಂದು ಗುರುಗಳು ಸೂಚನೆ ಕೊಟ್ಟರು. ಇವುಗಳನ್ನು ಸಹ್ಯಾದ್ರಿ ಬೆಟ್ಟಗಳೆಂದು ಕರೆಯುತ್ತಾರೆ ಎಂದರು ಗುರುಗಳು. ಜೋಗದ ಜಲಪಾತವನ್ನು ನೋಡಿ ನಮಗೆಲ್ಲಾ ಆನಂದ ಹಾಗೂ ಆಶ್ಚರ್ಯವಾಯಿತು. ಎತ್ತರದಿಂದ ಧುಮುಕುವ ನೀರನ್ನು ಜಲಪಾತ ಎನ್ನುವರು. ಇಂತಹ ಹಲವು ಜಲಪಾತಗಳು ನಮ್ಮ ರಾಜ್ಯದಲ್ಲಿ ಇವೆ ಎಂದು ನಮಗೆ ಮಾಹಿತಿಯನ್ನು ಕೊಟ್ಟರು.

ಪ್ರಶ್ನೆಗಳು :

1. ಬಸ್ಸು ಎಲ್ಲಿ ಪ್ರವೇಶಿಸಿತು?
2. ಪಶ್ಚಿಮ ಘಟ್ಟಗಳ ಸಾಲನ್ನು ಏನೆಂದು ಕರೆಯುತ್ತಾರೆ?
3. ಜಲಪಾತ ಎಂದರೇನು?
4. ಜಲಪಾತದ ಹೆಸರೇನು ?
5. ಗದ್ಯಭಾಗಕ್ಕೆ ಒಂದು ಸೂಕ್ತವಾದ ತಲೆಬರಹವನ್ನು ನೀಡಿ.

ಭಾಗ-2 ರ ಮಾದರಿ ಪ್ರಶ್ನೆಗಳು

ಎ) ವಿರುದ್ಧ ಪದಗಳನ್ನು ಬರೆಯಿರಿ

- 1) ಸರಿ
- 2) ಮೇಲೆ

ಬಿ) ವಚನ ಬದಲಾಯಿಸಿ

- 1) ಪುಸ್ತಕ
- 2) ಮರಗಳು

ಸಿ) ಲಿಂಗ ಬದಲಾಯಿಸಿ

- 1) ಅಣ್ಣ
- 2) ಸಿಂಹ

ಡಿ) ಬಿಟ್ಟ ಸ್ಥಳಗಳನ್ನು ತುಂಬಿರಿ

- 1) ಇಂದು ಸೋಮವಾರ, ನಾಳೆವಾರ
- 2) ಸಾಮಾನ್ಯವಾಗಿ ಕಾಗೆಯ ಬಣ್ಣ

.ಇರುತ್ತದೆ.

ಇ) ಅಂಕಗಳನ್ನು ಅಕ್ಷರದಲ್ಲಿ ಬರೆಯಿರಿ

- 1) 12
- 2) 98

ಎಫ್) ಸಮಾನಾರ್ಥಕ ಪದಗಳನ್ನು ಬರೆಯಿರಿ

- 1) ಗಜ
- 2) ಆಕಾಶ

ಜಿ) ಪ್ರಾಸಬದ್ಧ ಶಬ್ದಗಳನ್ನು ಬರೆಯಿರಿ

- 1) ವರ್ಷ
- 2) ಶಾಲೆ

ಹೆಚ್) ಹೊಂದಿಸಿ ಬರೆಯಿರಿ

ಎ ಬಿ

ಹಸು ಗರಿ

ಹಕ್ಕಿ ಹೂವು

ಕಮಲ ಪ್ರಾಣಿ

ಐ) ಚಿತ್ರವನ್ನು ಹೆಸರಿಸಿ

1)  2) 

ಜೆ) ಪದಗಳನ್ನು ಮರುಜೋಡಿಸಿ ವಾಕ್ಯ ರಚಿಸಿ

1) ಹೋದನು / ಕಾಡಿಗೆ / ರಾಮನು 2) ಗಡಿಯಾರವು / ತೋರಿಸುತ್ತದೆ / ಸಮಯವನ್ನು

CHAPTER – 4
SYLLABUS FOR COMMON ENTRANCE EXAMINATION
FIRST PAPER
SUBJECT – MENTAL ABILITY

Test will be framed on the following ten sub areas.

Analogy, Classification test, Blood relation test, Series completion Test. Direction source test, Alphabet test, Abstract reasoning Test, Logic test, Verification test, Coding and Decoding test
The Test item shall include at least five of the above areas.

SUBJECT – TEACHING APTITUDE

Test will be framed on the following sub areas.

Education roll perception, Communication ability, Approach towards children, Managing the children, Dealing with individual difference of children, Any other relevant area.

SUBJECT – GENERAL KNOWLEDGE

Areas listed :

1. Famous Books and Authors
2. Important Inventions & Discoveries
1. Basic science – Scientific Phenomena
4. Hygiene and Physiology (Human)
5. Chronology of Events in World History
6. Glimpses of Indian History
7. Geographical terms (basic)
8. Sports – International & National figures
9. Awards, Honours and Prizes
10. Indian culture – Land & people – festivals.
- Physical geography – Population – Literacy – Natural regions – Natural Resources – Food crops – Non – Food crops – Major Industries – Projects – Public undertakings – Indian Art – Artists of recognition – Classical Awards for various achievements – National Policy on Education
- Constitution of India – Major items – Union Govt. – and State Govt. – Cabinets – Indian leaders of International & National Recognition – (Who is who – India)
11. Current International affairs – India's Foreign relations
12. Current National affairs.

SUBJECT – VALUE EDUCATION

Course Content

- 1) Meaning of values – Types of values, Intrinsic – Extrinsic (Instrumental) and Lower – Higher Human values (Truth – Right conduct, Peace-Love- and Non-violence) and constitutional value (Democracy, Socialism, Secularism, National Integration, Equality) common core values recommended by NPE 1986, like India's Common cultural Heritage, Egalitarianism, Democracy, Socialism, Equality of sexes, protection of environment, removal of Social barriers, observance of small family norm and Scientific temper.
- 2) Methods of including values Direct – Indirect and Incidental approaches – role assignments, settings examples and external imposition.
- 3) Value process during adolescence
- 4) Value crisis and remedial measures.

SYLLABUS FOR COMMON ENTRANCE EXAMINATION -SECOND PAPER

ವಿಷಯ: ಕನ್ನಡ

ಪಠ್ಯಕ್ರಮ:

ಘಟಕ1-ಕನ್ನಡ ಸಾಹಿತ್ಯ ಚರಿತ್ರೆ

ಹಳಗನ್ನಡ ಕಾಲ, ನಡುಗನ್ನಡ ಕಾಲ, ಹೊಸಗನ್ನಡ ಕಾಲ- ಕವಿಗಳು, ಕೃತಿಗಳು

ಘಟಕ2- ಕಾವ್ಯ ಮೀಮಾಂಸೆ ಮತ್ತು ಛಂದಸ್ಸು

ಘಟಕ3-ಕನ್ನಡ ಭಾಷೆ ಮತ್ತು ವ್ಯಾಕರಣ

SUBJECT – ENGLISH

Components of the test:

Unit 1 Poetry, Unit 2 Drama and Fiction, Unit 3 (a) Literary Criticism and Movements. (b) The use of language

SYLLABUS :

UNIT 1 POETRY

Candidates should familiarize themselves with the following poems:

1. Canonization John done
2. On His blindness John Milton
3. On Shakespeare - do-
4. Tintem Abbey William
5. Ode on a Grecian Um John Keats
6. Dover Beach Mathew Arnold
7. Byzantium W.B.Yeats
8. Salling to . Byzantium -do-
9. The Hollow Men T.S. Eliot
10. Love Song of J. Affred Purfrock T.S. Eliot
11. Mending wall Robert Frost
12. Stopping by woods Robert Frost
13. Small Scale Reflections on a Great House- A.K. Ramanujan
14. Enterprise Nissim Ezekiel

UNIT 2 DRAMA AND FICTION

Drama (4 Marks)

Fiction (6 Marks)

1. William Shakespeare 1.
- Jane Austen, 2. Charles Dickens
2. Henrik Ibsen
3. Emily Bronte 4. Thomas Hardy
3. George Bernard Shaw 5. Joseph Conrad, 6. E.M. Forster
4. T.S. Eliot
7. Ernest Hemingway 8. George Orwell
5. Girish Kamad 9.
- R.K. Narayan 10. Anita Desai.

(Only knowledge of the works of these writers will be tested and not knowledge of individual works)

UNIT 3 A) LITERARY CRITICISM AND MOVEMENTS

1. Aristotle's definition of Tragedy and the Three Unities
2. Classicism and romanticism
3. Coleridge's Fancy and imagination
4. Realism and Naturalism
5. Arnold's Touchstone Theory
6. Eliot's objective Correlative
- (Reference: M.H. Abrams: A Glossary of Literary Terms)
7. Metaphysical Poetry (Donne, Herbert, Vaughan etc)
8. Neo-classical writing (Dryden, Pope, Johnson etc)
9. Romantic Poetry (Wordsworth, Coleridge etc)
10. Symbolist poetry (Yeats, Eliot, Pound etc)

11. British poetry of the 1930 (Auden, Spender, Mac Neice etc)
- B) The use of language
 1. Misuse of words (caused on account of phonetic similarity e.g. adopt/adapt, bear/bare)
 2. Formation of words (by adding correct prefixes and suffixes)
 3. Identification of grammatically correct sentence structures
 4. Selection of sentence connectors(Prepositions, conjunctions, linking phrases)
 5. Comprehension and Interpretation of a Sentence to assess Reading skills

SUBJECT- HISTORY

SECTION-A

INDIAN HISTORY:(UPTO 1950 A.D)

1. Sources. 2. The Harrapan Civilization (Indus Valley)
3. The Aryan Culture – Political, Social, Economic and religious features
4. The sixth Century B.C – Jainism and Buddhism 5. The Mauryan Age – Chandragupta Maurya – Ashoka – Polity and Culture 6.The Kushans – Kanishka 7.The age of the Guptas – Samudra Gupta – Chandragupta-ii ,cultural contributions 8. The Vardhanas of Thaneswar-Harshavardhana 9. The Rajputs – Society and culture 10.South India- Cultural Contribution of the Shatavahanas – The pallavas- The Cholas 11.The Arab invasion of Sindh- The Turkish invasions 12. The Delhi Sultanate- the early Sultans – The Khiljis – The Tughlaqs- Polity, Economy and culture 13.The Bhakti movement, its characteristics - Chief Exponents – impact 14.The Mughals –Babar, Shershah and his administration, Akbar, Shahjahan, Aurangzeb-administration, Socio- economic conditions, Literature and art. 15.The Marathas-Shivaji- the Peshwas 16.The coming of the Europeans – The Portuguese in India – The Anglo- French rivalry in the Deccan 17.The rise and expansion of British power in India 18. Resistance to British power – Anglo- Mysore Wars, Anglo- Maratha Wars – Ranjit Singh and Anglo- Sikh Wars 19.The movement 1857 20.The impact of British rule (1757 to 1857) – Land Revenue – Administration, Social and Educational Reforms 21.Socio- Religious movements of the 19th Century 22.Rise and Growth of Nationalism – Indian National movement – Indian Republic

SECTION-B

HISTORY OF KARNATAKA

1. Source 2. The age of the Empire – The Chalukyas of Badami – The Rashtrakutas, the Chalukyas of Kalyana – The Hoysalas of Dwarasamudra – their cultural contribution
- 3.Socio – religious reformers – Shankara, Ramanuja, Madhwa, Basaveswara –
2. Purandaradasa – Kanakadasa 4. The Vijayanagara Empire – Devaraya II – Krishnadevaraya – Administration, Social and Economic conditions – Literature and Art – the battle of Rakkasa Tangadi 5. The Bahamanis – Society and culture
6. Mysore under the Wodeyar – The early Wodeyars, Chikkadevaraja Wodeyar-Hyderali and Tippu sultan- The Commissioners rule – Later Wodeyars – Krishnaraja Wodeyar III – Krishnaraja Wodeyar IV – The Dewans 7. Freedom movement in Karnataka 8.Unification of Karnataka

SECTION-C

World History from 1776 to 1960 A.D

1. The American War of Independence, 2.The French Revolution
- 3.Napoleon Bonaparte-Rise, Reforms and Fall 4.The Era of Reaction- The congress of Vienna – Mettemich 5. The unification of Italy 6.The Unification of Germany- The German Empire 7. The Eastern Question 8. The Industrial Revolution
- 9 The Civil War in USA – Abraham Lincoln 10.The Rise of Socialism – Kari Marx
11. The First World War, The causes – The treaty of Versailles – The League of Nations
12. The Russian Revolution – Lenin – Stalin 13.The Rise of dictatorships – Hitler – Mussolini
14. The Second World War – causes – The U.N.O 15. Modern Asia from 1900 to 1960 Communist China – Mao Tse – Tung-Japan-Allied Occupation-National struggle in Indo – China – Indonesia- Iran – Reza Shah Pahlavi- Turkey- Mustafa Kemal Pasha The Arab Nationalism – Israel- 16.Post –War Europe –Cold War

SUBJECT – GEOGRAPHY

PART-A

- I. Origin of the earth – a) Nebular Hypothesis b) Big- Bang theory
- II. Movements of the Earth – rotation and revolution
- III. Rocks – a) Igneous b) Sedimentary c) Metamorphic
- IV. Weathering of rocks - a) Physical b) Chemical

- V. Earth Quakes and volcanoes
- VI. Agents of Denudation – a) River b) Glacier c) Underground Water d) Wind
- VII. composition of the atmosphere
- VIII. Atmospheric Temperature - Horizontal and vertical distribution
- IX. Atmospheric pressure and pressure belts
- X. Winds – Planetary Winds, periodic winds and variable winds
- XI. Atmospheric Humidity and precipitation's
- XII. Distribution of salinity and temperature in the ocean Water
- XIII. Ocean currents – Atlantic and Pacific
- XIV. Ocean deposits – Coral reefs and Islands

PART – B

- I. Asia – Location, Physiography, Drainage System, Climate and Natural Vegetation.
- II. Man and Environment. III. Human life and Occupation a) Equatorial b) Mediterranean c) Polar regions. IV. Primitive life: a) Bush man b) Khirghis c) Eskimos
- V. Physiographic divisions of India :a) Himalalya b) Peninsular India c) Northern Plan
- VI. Climate of India. VII. Drainage and Natural vegetation of India. VIII. Multi purpose projects – Bhakranangal, Damodar and Thungabhadra
- IX. Agriculture- production and Distribution of Rice, Cotton, Sugarcane and Coffee in India X. Mineral Resources of India:- Production and Distribution of Iron Ore and Manganese
- XI. Power resources in India:- Coal, Petroleum and Electricity
- XII. Location and Distribution of Industry in India:- Iron and steel, Cotton Textiles and paper
- XIII. Transportation in India Railways, Road Ways and Water Ways
- XIV. Population in India : Growth, Distribution, Density and Problems
- XV. Resources : Concept and Types XVI. Major agricultural regions of the world and agricultural types:- Intensive, Extensive, Commercial and Mixed
- XVII. Fishing- Types and Major fishing grounds of the world
- XVIII. Location of Industries – Webar's Theory
- XIX. world Trade Routes – Atlantic and Pacific
- XX. World's population:- Growth, Distribution, Density and problems

PART-C

- I. Scales – Meaning and types II. Representation of Relief features
 - a) Contours b) Hachures c) Spot heights III. Latitudes and longitudes:-
 - a) Local and Standard time b) Greenwich Time c) International date line
- IV. Meteorological instruments:- Thermometers, Barometers, Rainguage and Wind vane
- V. Definition and classification of Map projection- simple Cylindrical, Conical with one Standard and two standard parallels and Zenithal (equi-distant and equal-area)).
- VI. Conventional- Sinusoidal and Mollweide's projection
- VII. Basic Statistics – Mean, Median, Mode and Index number
- VIII. Distribution maps – Isopleths, Choropleths and dots and Tints
- IX. Surveying-Chain, Plain Table and prismatic
- X. Cartographic representation of Geographical data graphs, bars and Block Pile
- XI. Interpretation of Indian Topographical and Weather maps

SUBJECT – ECONOMICS

NOTE:- QUESTIONS WILL BE SO FRAMED AS TO TEST THE CONCEPTUAL CLARITY OF THE CANDIDATES

1. Five fundamental economic questions/problems-production possibility curves Micro and macro economics.
2. Theory of consumer behaviour: Marshallian utility analysis and Hicksian in difference curve analysis- Demand and supply: Meaning extension and contraction and increase and decrease in demand and supply – Law of demand and supply- concept of elasticity of demand and supply
3. Theory of production: concept of production function – Law of variable proportions – Returns to scale-Difference between firm and industry- short run and long run cost curves- Revenue curves
4. Theory of product Pricing: Price and output determination under perfect competition, monopoly and monopolistic competition- Features of oligopoly and kinked demand curve.

5. Concept of national income:- Gross domestic product, Gross national product, net national product, National income, personal income and Disposable income – Methods of estimation and difficulties in measurement.
6. Say's Law of Markets- keynesian employment theory- Effective demand consumption and investment functions- Multiplier-phases of trade cycle.
7. Functions of money- Measures of money supply(M1,M2,M3)- Quantity theory of money: Fisher's equation of exchange and Cambridge equation- meaning of inflation and Deflation- Functions of Commercial Banks and Central Bank.
8. Difference between internal trade and international trade- Heckscher- Ohlin theory of factor endowments – Terms of Trade: Gross and net barter terms of trade and income terms of trade-Definition and difference between fixed and flexible exchange rates- Purchasing power parity theory- Difference between devaluation and depreciation- objectives and functions of W.T.O. I.M.F. and I.B.R.D.
9. Difference between private and Public goods- Meaning of tax- Difference between proportional, progressive and regressive tax- Wagner's law of public expenditure- objectives of fiscal policy- concept of fiscal deficit.
10. Distinction between Economic growth and Economic development – India as a developing economy- objectives of India's five year plans- some issues in Indian economy – Land reforms, population, poverty, unemployment and price situation Concept of economic liberalisation and globalisation.

SUBJECT: SOCIOLOGY

Section A: General Sociology

1. Definition, Nature, Scope and importance of Sociology
2. Historical Development of Sociology, Brief introduction to Comte, Spencer
Durkhiem, Marx Weber
3. Scientific Status of Sociology- Stages of Scientific research, Tools of data collection: interview, Questionnaire, Observation, case study, Experiment.
4. Basic concepts: Society, Community, Institution, Association, Social structure, Groups, Role and Status Social Norms.
5. Culture and Socialization-Meaning of culture, Elements in culture, meaning of Socialization, stages and Agencies of Socialization.
6. Social Stratification- Meaning-characteristics and Types of Social Stratification, Social Mobility and its types
7. Social Control- Meaning, Means and Agencies of Social Control
8. Social Change- Concept of change, progress and Evolution- Factors of change

Section-B: Indian Society

1. Social structure of Indian Society- Varna and Caste, Religious and Linguistic Minorities, Scheduled Castes, Scheduled Tribes and other Backward Classes, Constitutional safeguards.
2. Indian Social Institutions- Family, marriage, Education, Economy, Polity Nature and Characteristics of Indian villages.
3. Changing stages of Women in India
4. Social change in India- Sanskritization, Westernization, Modernization, Democratic Decentralization
5. Indian Social Problems: population problem, poverty, Illiteracy, Unemployment, Indebtedness, Bonded Labour, Slums and Housing, Crime and Juvenile Dellinquency, Beggary Alcoholism and Drug Abuse, prostitution, Child labour, Violence against Women.
6. Special problems of Education of Scheduled Castes, Scheduled Tribes and Women.

SUBJECT: POLITICAL SCIENCE

UNIT-I

1. Political Science – Its meaning, scope, nature and importance. Relations of Political Science with other Social Sciences – History, Sociology and Economics.
2. State:- Meaning and its elements – Historical Theory and Social Contract Theory- Distinction between State and Nation.
3. Sovereignty – Meaning, Chief Characteristics – Types of Sovereignty – Legal, Political and popular sovereignty – Monism and Pluralism.

4. Law – meaning and kinds of law
5. Rights Liberty and Equality- meaning their importance and relevance
6. Contemporary main Political ideologies – Democracy, Liberalism, Socialism, Scientific Socialism and Gandhism.

UNIT-II

7. Modern Governments:- importance and their Chief functions- Types of Modern Democratic Governments- Parliamentary, Presidential, Federal and Unitary Govts – their main characteristics, merits and defects – Distinctive features of the communist Govt.
8. Legislature:- Functions and powers in modern democratic countries – reasons for their declining role in recent years in Britain and India
9. Executive :- Functions and role in democratic countries- reasons for its increasing importance (Ex: USA Britain and India).
10. Judiciary – organisation, powers and its role in USA and India.
11. Political Parties and pressure Groups – Their importance and role in Britain USA, India and France.
12. Indian Constitution:- Its outstanding features – Fundamental Rights, Directive Principles of State Policy. Fundamental duties, the role of the President, the Prime Minister and the State Governor – Procedure for amending the Indian Constitution- Indian Electoral System and the Election Commissioner of India.

UNIT-III

13. Public Administration – Meaning, Scope and importance
14. Principles of organisation
15. Line, Staff and Auxiliary Agencies
16. Modern Public Service:- Its Salient features and role – Recruitment, Training and promotion.
17. Budget:- Importance, its preparation and enhancement
18. Departments and Public Co-operations
19. Corruption:- Reasons for corruption in Public Administration- ombudsman – Lok Pal and Lokayukta.
20. Control over Public Administration – Popular control, legislative control and Judicial control.

UNIT-IV

21. International Relations: - Its meaning and its growth as an academic discipline
22. National power:- its significance – Elements of national power
23. Foreign Policy – Its meaning and importance – Factors that influence foreign policy – Role of the Ministry of External Affairs in foreign policy – making
24. Diplomacy:- Role and Functions of diplomats
25. Regional Alliances: N.A.T.O. S.A.A.R.C and A.S.E.A.N.
26. Disarmament: - Importance and relevance – Major attempts at disarmament – SALT-1, SALT-2, Nuclear Non proliferation Treaty (NPTO, START-1, START-2, AND C.T.B.T)
27. International organizations – League of Nations, its objectives and main organs – the United Nations – its objectives, main organs and its specialised Agencies

SUBJECT –PHYSICS

Mechanics, Properties of matter, Heat and Thermodynamics

Waves, Sound, Light, Optics, Electricity and Magnetism

Electronics and modern physics

Theory of active and passive networks and devices, filters, power supply. Digital electronics.

Atomic Spectroscopy, Atomic structure, charge, mass and e/m.

Molecular spectra, Lasers and masers. X-rays and crystal structure. Free electronic theory, semiconductors-Band theory. Magnetic materials.

Quantum mechanics:- Wave mechanics, matter waves, Eigen functions, Schrodinger wave function. Special theory of relativity, Lorentz contraction, time dilation, Doppler effect, Ultimate speed. Aberration, variation of mass. Properties of nucleus, detectors, accelerators, nuclear

decays, Nuclear models, Fission and Fusion, Nuclear reactions-binding energy, Cosmic rays, fundamental particles.

SUBJECT –CHEMISTRY

I. **INORGANIC CHEMISTRY** : Atomic structure, periodic table, chemical bonding, metallurgy, d-block elements, f- block elements, co-ordination chemistry, industrial chemistry, analytical chemistry

II **PHYSICAL CHEMISTRY**: Gases, Colloids, Surface Chemistry, Thermodynamics, Nuclear Chemistry, Electro Chemistry, Indicators.

III **ORGANIC CHEMISTRY**: Alkanes, Alkenes and Alkynes – IUPAC nomenclature, Isomerism, Functional groups ,Aromaticity, Vitamins, Hormones, Alkaloids, Carbohydrates

SUBJECT – BOTANY

Protista, Viruses, Bacteria, Phycology, Mycology, Bryophytes, Hepaticae, Anthocerotae, Musci, Pteridophytes, Gymnosperms, Plant Anatomy, Tissues, Embryology, Ecology, Plant succession, Plant communities, Phytogeography, Taxonomy of Angiosperms, Families, Economic botany, Plant propagation, Cytology, Chromosomes, Cell division, Polyploidy, Genetics, Evolution, Plant physiology, Enzymes, Xerox synthesis, Respiration, Protein synthesis, Growth, Xerox periodism, Plant Biotechnology

SUBJECT – ZOOLOGY - NON – CHORDATA

PHYLUM : Protozoa, Porifera, Cnidaria, Acnidaria, Platyhelminthes, Aschelminthes, Annelida, Arthropoda, Mollusca, Echinodermata

CHORDATA

Characteristic features of chordata. Outline classification and Identifying features of Prochordata (Urochordata, Hemichordata and ephalchordata) and vertebrata salient features of Agnatha with examples. Pisces, Amphibia, Reptilla, Aves, Mammalia

CELL BIOLOGY : Cell and its Organelles, Mitosis and Meiosis, Fertilization, Parthenogenesis, Sex Determination, Sex determination in Man, Genetics

BIOCHEMISTRY AND PHYSIOLOGY: Carbohydrates, Proteins, Lipids, Vitamins, Enzymes, Physiology, Histology, Environmental Biology, Terrestrial Ecology,

SUBJECT : MATHEMATICS

I **ALGEBRA** :Matrices, Groups, Vectors, Series

II **CALCULUS** : Differential Calculus & Integral Calculus

III **DIFFERENTIAL EQUATIONS** IV. **GEOMETRY** V. **COMPLEX ANALYSIS**