

**SYLLABUS AND MODEL QUESTIONS 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.

TYPE : ANALOGY TEST

1. A Z B Y : G T H S :: L O M N : ?
 (1) RQIJ (2) RISH (3) RUST (4) RSUT
 Ans (2)
2. 6:37 :: ? : 82
 (1) 6 (2) 9 (3) 8 (4) 7
 Ans (2)

TYPE : CLASSIFICATION

1. Which one is different from the rest of the three?
 (1) 21,28 (2) 35, 42 (3) 7, 77 (4) 7, 17
 Ans (4)
2. Which one is different from the rest of the three ?
 (1) UOAZ (2) EIOY (3) IAEO (4) AUIL
 Ans (3)

TYPE : SERIES COMPLETION TEST

1. 1, 8, 22, 44 -----
 (1) 120 (2) 81 (3) 74 (4) 114
 Ans (4)
2. 0, 2, 10, 30 -----
 (1) 68 (2) 30 (3) 90 (4) 150
 Ans (1)

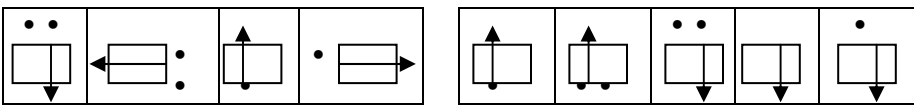
TYPE : CODING AND DECODING

1. If CUP can be written as PHC, then ZIP can be written as :
 (1) MJC (2) MVC (3) AJC (4) AVC
 Ans (2)
2. If B = 2, and BAT = 23 then RAT = ?
 (1) 17 (2) 30 (3) 38 (4) 39
 Ans (4)

TYPE : ABSTRACT REASONING

Problem figure

Answer figure

1. 
 Ans (4)

2.

?	??	??	???
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????	???	???	??	????
1	2	3	4	5

Ans (5)

TYPE : VERIFICATION TEST

1. A number whose fifth part increased by 5 equals to its fourth part diminished by 5. Then the number is
 (1) 100 (2) 400 (3) 200 (4) 30
Ans (3)

DIRECTION SOURCE TEST

1. Arun facing in east walks 1 Km, turns right, walks 1½ Km, turns left and walks one kilometre. Which direction is he facing now?
 (a) North East (b) East (c) West (d) South
Ans(b)
2. Seema facing South, walks one Kilometre and turns south-east, walks one kilometre and turns north-east, walks two kilometre and turns left. Which direction is she facing now?
 (a) North (b) South (c) East (d) West
Ans(d)

BLOOD RELATION TEST

1. A is son of B, but B is not father of A, who is B?
 (a) Father (b) Mother (c) Uncle (d) Aunt
Ans(b)
2. Kumar is the brother of the son of Raju's son. What is the relationship between Kumar & Raju?
 a) Brother b) Nephew c) Grand son d) Cousin
Ans(c)

LOGIC TEST

Direction: In each of these questions, a statement is followed by two conclusions a) and b). You have to assume everything in the statement to be true and consider both the conclusion together and then decide which of the two given conclusions logically follow beyond a reasonable doubt from the information given in the statement.

Mark Answer:

A : if only conclusion (a) follows
 B : if only conclusion (b) follows
 C : if either (a) or (b) follows
 D : if both (a) and (b) follow

1. Statement :
 Democracy is but election by the incompetent many, for appointment of the corrupt few.
 Conclusion :
 a) Democracy aggravates corruption b) Election lead to appointment
2. Statement : A B C D E : The present education system needs thorough overhauling.
 a) Overhauling results in improvement
 b) The present education system is out dated A B C D E

ALPHABET TEST

Odd man out :- In this type of question, groups of the letters are made according to a definite pattern and one of the five does not follow the pattern is odd one.

1. a) MNO b) NOP c) PQR d) RQP
Ans(d)

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.

Test items :

1. Nation building depends more on
 - 1) The kind of new industries established
 - 2) The amount of finances available from world organisation
 - 3) The quality of education provided to the citizens
 - 4) The number of experts advising the policy makers

Ans(3)

2. Best thing to do in teaching is
 - (1) Ask questions
 - (2) Do not ask questions
 - (3) Question back
 - (4) Answer all questions

Ans(1)

3. To make a student more sociable
 - (1) Give him a chance to perform as a leader
 - (2) Talk to him about effective leadership
 - (3) Select friends for him to become sociable
 - (4) Ask parents to train him at home

Ans(1)

SUBJECT –GENERAL KNOWLEDGE

Areas listed :

1. Famous Books and Authors
2. Important Inventions & Discoveries
3. 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.

1. "Das Capital" was written by
 - (a) Lenin
 - (b) Stalin
 - (c) Marx
 - (d) Roy
2. Pencillin was discovered by
 - (a) Joseph Lister
 - (b) Edward Jenner
 - (c) Louis Pasture
 - (d) A. Fleming
3. Shooting Stars are scientifically known as
 - (a) Comets
 - (b) Meteorites
 - (c) Asteroids
 - (d) Satellites
4. The boiling of water basically involve
 - (a) Conduction
 - (b) Radiation
 - (c) Evaporation
 - (d) Convection

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.

Reference:

- 1) Sarvodaya movement and our Secularism, Socialism and Democracy:
BY: K.S. Narayanaswamy, Published by the Author in 1999
- 2) Education in Human Values- By: S.R. Rohidekar, Published by Govt. of Karnataka in 1987.
- 3) Ph.D. Thesis at H.P. University, Shimla 171005 –By: Prof. Shanta A. Diwakar, in 1995.
- 4) A study of Ethics of Bertrand Russell – By: D.D. Bandiste
- 5) Programme of Action – By : National Education Policy 1986, M.H.R.C. 1988
- 6) Values and Education- Edited by: C.S. Sheshadri, N.C.E.R.T.
- 7) Education in Emerging Indian Society. By: Mohanthy.
- 8) Theory and Principals of Education –
By: J.C. Aggarwal, Vikas Publication House Pvt. Ltd. New Delhi, 1997.
- 9) Moral Education –
By : K. RamaRao, Ramakrishna Institute of moral and Spiritual Education, Mysore, 1986.
- 10) Trends in Education – By: B.R. Satija, Anmol Publications Pvt. Ltd. New Delhi, 1996.
- 11) Philosophical and sociological Foundation of Education.
By: S.K. Murthy, Prakash Brothers, Ludiana 1985.

1. Values are

- (a) Caught (b) Taught
(c) Caught as well as Taught (d) Neither Caught nor Taught
(c)
2. Environmental protection is basically the responsibility of the
(a) Government (b) Voluntary Organisation (c) Society (d) Individual
(d)
3. The fundamental principle of national integration is
(a) Increasing prejudice (b) Upholding social conflict
(c) Valuing differences and diversities (d)insisting on rigid uniformity
(c)
4. Human values can be learnt from
(a) lecture (b) Text books (c) Practice (d) Preaching.
(c)

SYLLABUS AND MODEL QUESTIONS FOR COMMON ENTRANCE EXAMINATION

2005

SECOND PAPER

ವಿಷಯ: ಕನ್ನಡ

ಪಠ್ಯಕ್ರಮ:

ಘಟಕ 1-ಕನ್ನಡ ಸಾಹಿತ್ಯ ಚರಿತ್ರೆ

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

ಘಟಕ2- ಕಾವ್ಯ ಮೀಮಾಂಸೆ ಮತ್ತು ಛಂದಸ್ಸು

ಘಟಕ3-ಕನ್ನಡ ಭಾಷೆ ಮತ್ತು ವ್ಯಾಕರಣ

ಆಧಾರ ಗ್ರಂಥಗಳು:

ಕನ್ನಡ ಸಾಹಿತ್ಯ ಚರಿತ್ರೆ : ರಂ.ಶ್ರೀ. ಮುಗಳಿ

ಕನ್ನಡ ಸಾಹಿತ್ಯ ಚರಿತ್ರೆ : ತ.ಸು.ಶಾಮರಾವ್

ಬಂಡಾಯ - ದಲಿತ ಸಾಹಿತ್ಯ : ಪುರುಷೋತ್ತಮ ಬಿಳಿಮಲೆ

ಯುಗಧರ್ಮ ಹಾಗೂ ಸಾಹಿತ್ಯ ದರ್ಶನ: ಕೀರ್ತಿನಾಥ ಕುರ್ತಕೋಟಿ

ಸಾಮಾನ್ಯನಿಗೆ ಸಾಹಿತ್ಯ ಚರಿತ್ರೆ : ಬೆಂಗಳೂರು ವಿಶ್ವವಿದ್ಯಾಲಯ ಒಂದರಿಂದ ಹತ್ತು ಸಂಪುಟಗಳು

ಕನ್ನಡ ವಿಷಯ ವಿಶ್ವಕೋಶ : ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾಲಯ

ಭಾರತೀಯ ಕಾವ್ಯ ಮೀಮಾಂಸೆ : ತೀ.ನಂ.ಶ್ರೀಕಂಠಯ್ಯ

ಕನ್ನಡ ಕೈಪಿಡಿ : ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾಲಯ

ಅಲಂಕಾರ ಶಾಸ್ತ್ರ : ಬಿ.ಕೆ. ಶಿವರಾಮಯ್ಯ

ಕನ್ನಡ ಛಂದೋವಿಕಾಸ : ಡಿ.ಎನ್. ಕರ್ಕಿ

ಛಂದೋ ಮಿತ್ರ : ಅ.ರಾ. ಮಿತ್ರ

ಶಬ್ದಮಣಿ ದರ್ಪಣ : ಡಿ.ಎಲ್. ನರಸಿಂಹಾಚಾರ್

ಕನ್ನಡ ಮಧ್ಯಮ ವ್ಯಾಕರಣ: ತೀ.ನಂ.ಶ್ರೀಕಂಠಯ್ಯ

ಕನ್ನಡ ಭಾಷಾ ಸ್ವರೂಪ : ರಾಜೇಶ್ವರಿ ಮಹೇಶ್ವರಯ್ಯ

ಕನ್ನಡ ವ್ಯಾಕರಣ, ಛಂದಸ್ಸು ಮತ್ತು ವ್ಯವಹಾರ : ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತು

ಮಾದರಿ ಪ್ರಶ್ನೆಗಳು

1. ಶಿವಕೋಟ್ಯಾಚಾರ್ಯರ 'ವಡ್ಡಾರಾಧನೆ' ಎಂಬ ಕೃತಿ
(ಎ) ಚಂಪೂಕೃತಿ (ಬಿ) ಗದ್ಯಕೃತಿ (ಸಿ) ಒಂದುನಾಟಕ (ಡಿ) ಒಂದು ಶಾಸನ (ಬಿ)
2. "ಪುರದ ಪುಣ್ಯಂ ಪುರುಷ ರೂಪಿಂ ಪೋಗುತಿದೆ" ಇದು ಈ ಅಲಂಕಾರ
(ಎ) ಉಪಮಾ (ಬಿ)ರೂಪಕ (ಸಿ) ಉತ್ಪ್ರೇಕ್ಷೆ (ಡಿ) ದೃಷ್ಟಾಂತ (ಬಿ)
3. ಕೆಳಗಿನಲ್ಲಿರುವ ಕನ್ನಡ ಪದ
(ಎ) ತಾಲ್ಲೂಕ್ (ಬಿ) ಕಛೇರಿ (ಸಿ) ಹೋಟೆಲ್ (ಡಿ) ಮನೆ (ಡಿ)

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 Wordsworth
5. Ode on a Grecian Um John Keats
6. Dover Beach Mathew Arnold

- | | |
|---|----------------|
| 7. Byzantium | W.B. Yeats |
| 8. Sailing 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)

1. William Shakespeare
2. Henrik Ibsen
3. George Bernard Shaw
4. T.S. Eliot
5. Girish Kamad

Fiction (6 Marks)

1. Jane Austen, 2. Charles Dickens
3. Emily Bronte 4. Thomas Hardy
5. Joseph Conrad, 6. E.M. Forster
7. Ernest Hemingway 8. George Orwell
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

1. "Tintem Abbey" was written in the :

- a) Elizabethan Age b) Romantic Age c) Neo-Classical Age d) Victorian Age (b)

2. "Beauty is truth, truth is beauty" that is all Ye know on earth, and all ye need to know"

These lines occur in:

- a) Mending Wall b) Dover Beach c) Ode on a Grecian Um d) The Hollow Men

(c)

3. Which of the following Shakespearean heroes was unable to act appropriately in a crisis?

- a) Othello b) Hamlet c) Lear d) Macbeth

(b)

4. Romanticism emphasizes

- a) Classicism b) Individualism c) Puritanism d) Scepticism

(b)

5. "This road is under repair therefore we have to take a different....."

This Sentence can be completed with the word

- a) Root b) Rout c) Rot d) Route
(d)

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 –
5. 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

INDIAN HISTORY (Upto 1950 A.D)

1. In the administration of Shivaji, Sari Naubat was charge of
1) Revenue 2) Army 3) Foreign Affairs 4) Finance
2. During the National movement the following events occurred
(1) The Jallianwala Bagh Tragedy
(2) The commencement of Non-cooperation movement
(3) The Simon Commission
(4) The Chauri Chaura incident
Their chronological sequence is:
(1) 3 1 2 3 (2) 1 2 4 3 (3) 4 3 1 2 (4) 2 4 3 1

History of Karnataka

1. Which one of the following pairs is not correctly matched?
1) Rangacharlu – The Mysore Representative Assembly
2) Seshadri iyer – The Mysore Civil Service Examinations
3) Visweshwaraiah – the Brindavan Gardens
4) Mirza Ismail – Irwin Canal
2. Abdur Razaak visited Vijayanagara during the reign of
1) Devaraya I 2) Devaraya II 3) Krishnadevaraya 4) Achyutaraya

World History from 1776 to 1960 A.D

1. The Warsaw pact was signed in the year
1) 1949 2) 1951 3) 1954 4) 1955
2. Match list I with list II and select the correct answer from the code given below the lists.

LIST I HISTORICAL EVENTS

LIST II COUNTRY

- | | |
|---------------------------|--------------|
| A. Legion of Honour | 1. China |
| B. The Dreikaiserbund | 2. France |
| C. The Guided Democracy | 3. Germany |
| D. The Great Leap forward | 4. Indonesia |
| | 5. Japan |

Code:- (1) A B C D (2) A B C D (3) A B C D (4) A B C D
1 4 3 5 3 2 1 4 5 1 2 3 2 3 4 1

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) Himalaya b) Peninsular India c) Northern Plan
 VI. Climate of India VII. Drainage and Natural vegetation of India VIII. Multi purpose projects – Bhakra-Nangal, Damodar and Tungabhadra
 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 – Weber'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, Rain gauge 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

Each question has four alternative responses, write the number of the correct response in the space provided:-

1. The agricultural density of population is represented by
 - 1) Total population /Total area
 - 2) Total population /Total cultivated area
 - 3) Total population engaged in agriculture/Total cultivated area
 - 4) Total cultivator/ Net area sown
2. The greatest concentration of China's coal deposits is in
 - 1) Hopei 2) Shantung 3) Shanshi and Shensi 4) Szechuan

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 indifference 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.

Model Questions: Multiple choice/objective type

1. The concept M1 supply of money does not include

1) Currency	2) Demand Deposits
3) Other Deposits with the R.B.I	4) Savings deposits with the post office

Ans(4)
2. Who formulated purchasing power parity theory?

1) Milton Friedman	2) Manmohansingh
3) Gustav Cassel	4) Amartya Sen

Ans(3)

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 Delinquency, Beggary Alcoholism and Drug Abuse, prostitution, Child labour, Violence against Women.
6. Special problems of Education of Scheduled Castes, Scheduled Tribes and Women.
1. Who among the following coined the term Sociology?
1) Saint Simon 2) Auguste Comte 3) Herbert Spencer 4) Emile Durkhiem Ans(2)
2. Caste is form of
1)Social change 2)Social Mobility 3)Social Stratification 4)Social Control Ans(3)

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

1. Under the Indian Constitution, Right to Equality is:
1) Political Right 2) Social Right 3) Fundamental Right 4) Legal Right

Ans(3)

2. The Doctrine of popular sovereignty is advocated by:
1) Hobbes 2) John Locke 3) Austin 4) Rousseau

Ans(4)

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.

1. Which of the following is true in respect of a body in Uniform Circular Motion?

- 1) Its Velocity is constant
- 2) Its Acceleration is constant
- 3) Its Acceleration is variable
- 4) The force acting on it is constant

Ans(3)

2. The minimum energy required to free the electron from the ground state of the Hydrogen atom is:

- 1) 0.85 eV
- 2) 1.51 eV
- 3) 3.40 eV
- 4) 13.6 eV

Ans(4)

SUBJECT –CHEMISTRY

1. 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

1. Which of the following has the smallest bond length?

- 1) O_2^+
- 2) O_2^-
- 3) O_2^{2-}
- 4) O_2

Ans:(1)

2. Enthalpy is defined as:

1) H=E-PV 2)H=P+E+V 3)H=E+PV 4) H=E-TS

Ans: (3)

3. Alkyl halides on treatment with aqueous KOH give:

1) Acids 2) Alcohols 3)Alkenes 4) Aldehydes

Ans: (2)

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, Photosynthesis, Respiration, Protein synthesis, Growth, Photoperiodism, Plant Biotechnology

1. Peeling of bark, indefinite number of stamens and inferior ovary are the characteristics of the family :

1) Myrtaceae 2) Umbelliferae 3) rubiaceae 4) Tiliaceae

Ans(1)

2. the naked cell is nothing but :

1) An isolated cell 2) A free cell
3) A cell seen with naked eye 4) Cell without cell wall

Ans(4)

3 The Virus is a :

1) Living entity 2) Eukaryote
3) Nonliving nucleoprotein 4) Living organism

Ans(3)

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,

1. Genetic crossing over in Meiosis occurs during

1. Diplotene 2) Metaphase –1 3)Pachytene 4)Leptotene

2. Deficiency of Vitamin A causes

1. Scurvy 2) Beri Beri 3) Cretinism 4) Night blindness

3. Fishes that feed in sea water and breed in fresh water

1)Protodormous 2) Catadromous 3) Anadromous 4) None of the above

SUBJECT : MATHEMATICS

I ALGEBRA

Matrices, Groups, Vectors, Series

II CALCULUS

Differential Calculus & Integral Calculus

III DIFFERENTIAL EQUATIONS

IV. GEOMETRY

V COMPLEX ANALYSIS

1. The number π is

- 1) $22/7$ 2) a rational number 3) Irrational number 4) None of the above

Ans.

3

2. The characteristic roots of

$$\begin{vmatrix} 3 & 0 & 0 \\ 1 & \sqrt{2} & 0 \\ 2 & 3 & 4 \end{vmatrix} \text{ are}$$

- 1) $3, \sqrt{2}$, 4 (2) 3, 1, 2 (3) 2, 3, 4 (4) None of the above

Ans.

1

3. The Value of $\int_{-1}^1 e^x dx$ is equal to

- 1) e 2) $\frac{e}{1-e^2}$ 3) e^2 4) $\frac{e^2-1}{e}$

Ans.

4