

# SYLLABUS FOR THE REVISED PRELIMINARY CIVIL SERVICES EXAMINATION OF JHARKHAND

The Preliminary Examination shall consist of two compulsory Papers, namely, **General Studies-I of 200 marks** and **General Studies-II of 200 marks**. The question papers shall be multiple choices, objective type. The question papers will be set both in Hindi and English.

## General Studies-I

**Total Marks: 200**

**Time: 2 hours**

The paper will consist of 100 objective type questions, each of 2 marks, drawn from the subjects listed below. Candidates will have to answer all the questions.

**(A) History of India:**

**15 Questions**

1. Ancient India (5 questions)
2. Medieval India (5 questions)
3. Modern India (5 questions)

**(B) Geography of India:**

**10 Questions**

1. General Geography (3 questions)
2. Physical Geography (3 questions)
3. Economical Geography (2 questions)
4. Social & Demographic Geography (2 questions)

**(C) Indian Polity and Governance:**

**10 Questions**

1. Constitution of India (4 questions)
2. Public Administration and Good Governance (4 questions)
3. Decentralization: Panchayats & Municipalities (2 questions)

**(D) Economic and Sustainable Development**

**10 Questions**

1. Basic features of Indian Economy (4 questions)
2. Sustainable Development and Economic issues (4 questions)
3. Economic Reforms and Globalization (2 question)

**(E) Science & Technology:**

**15 Questions**

1. General Science (6 questions)
2. Agriculture & Technology Development (6 questions)
3. Information & Communication Technology (3 questions)

**(F) Jharkhand Specific Questions (General Awareness of its History Society, Culture & Heritage):**

**10 Questions**

**(G) National & International Current Events:**

**15 Questions**

**(H) General Questions of Miscellaneous nature, not requiring subject specialization, such as:**

**15 Questions**

1. Human Rights
2. Environmental Protection, Bio-diversity & Climate Change
3. Urbanization
4. Sports
5. Disaster Management
6. Poverty and Un-employment
7. Awards
8. United Nations and other International Agencies

## Paper -2

(100 Question /200 Marks)

Time: 2 Hours

<b>A) History of Jharkhand</b>	<b>8 Questions</b>	<b>8x2=16</b>
1. Munda Administration	-(1 question)	
2. Naagvanshi Administration	-(1 question)	
3. Padha Panchayat administration	-(1 question)	
4. Manjhi Pargana Administration	-(1 question)	
5. Munda Manki Administration	-(1 question)	
6. Dhoklo Administration	-(1 question)	
7. Community Panchayat Administration	-(2 question)	
<b>B) Jharkhand Movement:</b>	<b>7 Questions</b>	<b>7x2=14</b>
1. Sadan of Jharkhand	-(1question)	
2. Tribes of Jharkhand	-(1question)	
3. Freedom Fighters of Jharkhand	-(1question)	
4. Significance of Jharkhand	-(2question)	
5. Jharkhand Movement and state Organizations	-(2question)	
<b>C) Specific Identities of Jharkhand</b>	<b>5 Questions</b>	<b>5x2=10</b>
1. Social Scenario	-(1question)	
2. Cultural Scenario	-(1question)	
3. Political Scenario	-(1question)	
4. Economic Scenario	-(1question)	
5. Religious Specific Identities	-(1question)	
<b>D) Folklore/Folk Literature, Dance Musical instruments Tourist Places, Tribal Culture of Jharkhand</b>	<b>5 Questions</b>	<b>5x2=10</b>
1. Folklore/Folk Literature	-(1question)	
2. Traditional Arts and Folk Dances	-(1question)	
3. Folk Music and Instruments	-(1question)	
4. Tourist Places- Natural Archaeological , Religious and modern Places	-(1question)	
5. Scheduled Castes and Tribes and their specialties	-(1question)	
<b>E) Literature and Authors of Jharkhand</b>	<b>(5 Questions)</b>	<b>5x2=10</b>
<b>F) Important Educational Institutions of Jharkhand</b>	<b>(3 Questions)</b>	<b>3x2=6</b>
<b>G) Sports of Jharkhand</b>	<b>(5 Questions)</b>	<b>5x2=10</b>
<b>H) Jharkhand Land Related Laws/Acts</b>	<b>(12 questions)</b>	<b>12x2=24</b>
1. Chhota Nagpur Tenancy (C.N.T)	(5 Questions)	
2. Santhal Paragna Tenancy (S.P.T)	(5 Questions)	
3. Other State wise Acts	(2Questions)	
<b>I) History of Economic Development in 1947, Geography of Jharkhand Forests, Rivers, Hills and Mountains, Mines and Minerals</b>	<b>(10 Questions)</b>	<b>10x2=20</b>
<b>J) Industrial Policies of Jharkhand, Displacement and Rehabilitation and other Policies</b>	<b>(6 Questions)</b>	<b>6x2=12</b>
<b>K) Important Industries Their Name, Place and Industrial Development</b>	<b>(5 Questions)</b>	<b>5x2=10</b>
<b>L) Important Schemes and Sub schemes</b>	<b>(5 Questions)</b>	<b>5x2=10</b>
<b>M) Forest Management and Wild Life Animal Protection</b>	<b>(5 Questions)</b>	<b>5x2=10</b>
<b>N) Climatic Facts, Climate change, Mitigation and Adaptation of Jharkhand</b>	<b>(7 Questions)</b>	<b>7x2=14</b>
<b>O) Disaster Management in Jharkhand</b>	<b>(5 Questions)</b>	<b>5x2=10</b>
<b>P) Trivia and Current Affairs of Jharkhand</b>	<b>(7Questions)</b>	<b>7x2=14</b>

## SYLLABUS FOR THE MAIN EXAMINATION OF THE JHARKHAND CIVIL SERVICES

The Main Examination shall consist of six compulsory papers, common to all candidates two of these papers namely Paper-I Hindi and English -100marks and Paper-II Regional Language & Literature -150marks, shall be language based and the remaining four papers each of 200 marks, Shall be subject based. The language based Papers shall be (i) A composite paper of General Hindi & General English and (ii) A Language & Literature Paper of certain selected languages of which every candidate will have to opt for one. The subject based papers shall be (i) Social Science (History & Geography), (ii) Indian Constitution, Polity, Public Administration & Good Governance, (iii) Indian Economy, Globalization & Sustainable Development and (iv) General Science, Environment & Technology Development

The detailed syllabi of all the above six papers shall be as follows.

### Paper-1

#### General Hindi and General English

**Total Marks: 100**

**Time: 3 hours**

The General Hindi and General English paper shall be a composite paper consisting of two segments, namely, (i) Hindi, and (ii) English. Both the segments shall be of equal weight age i.e. each of 50 marks. The purpose of the paper is to test the working knowledge of the candidates in the above two languages. As such, the questions to be asked in both the segments of this paper shall be of matric standard only and shall be confined to the following areas:

**(A) General Hindi**

1. निबंध (400 शब्दों का)
2. व्याकरण
3. वाक्य विन्यास
4. संक्षेपण

**50 Marks**

(15 Marks)

(15 Marks)

(10 Marks)

(10 Marks)

**(B) General English**

1. Essay (400)
2. Grammar
3. Comprehension
4. Precis

**(50 Marks)**

(15 marks)

(15 marks)

(10 marks)

(10 marks)

It will be only qualifying paper in which out of 100 (combined both Hindi & English) every candidate will have to secure only 30 marks. Thus inclusion of 50 marks General English component will not adversely impact the chances of students from Hindi/ Regional Language background

## Paper-II

### Language and Literature

**Total Marks: 150**

**Time: 3 hours**

The candidates have the choice to opt for one of the following languages. And literature:

1. Bangali Language and Literature
2. English Language and Literature
3. Hindi Language and Literature
4. Ho Language and Literature
5. Khadia Language and Literature
6. Khortha Language and Literature
7. Kurmali Language and Literature
8. Kurukh Language and Literature
9. Mundari Language and Literature
10. Nagpuri Language and Literature
11. Oriyya Language and Literature
12. Panchpargania Language and Literature
13. Sanskrit Language and Literature
14. Santhali Language and Literature
15. Urdu Language and Literature

This paper will be set for a maximum of 150 marks and marks obtained in this paper shall be counted for preparation of the Gradation-list of the main Examination.

The detailed syllabi of the above 15 languages and literatures shall be as follows:

#### (ii) English Language and Literature

**Full Marks: 150**

**Time: 3 Hours**

#### Part-I

#### 1. History of English Language:

- i. Indo-European Family of Language
- ii. Teutonic Verbal System, Teutonic Accent
- iii. The First Sound Shifting or Grimm's Law
- iv. Old English ( Dialects of Old Modern English; Characteristics of old English, Old English Vocabulary)
- v. Middle English(Dialects of Modern English; Characteristics of Middle English; Rise of Standard English)

#### 2. The Definition of Poetry : Its characteristics, purpose, forms of poetry—lyric, sonnet, ode, balled, free verse, blank verse, rhymed verse, poetic terms – alliteration, resonance, rhyme scheme, meter – its types.

#### 3. Comprehension (A passage containing approximately 1000 words to be set):

#### 4. Grammar

- i. Noun, Verb, Adjective, Adverb, Article, Preposition, Subject- Verb, Agreement, Narration, Voice, Transformation, Clause.
- ii. Single- word substitution
- iii. Correction of errors
- iv. Pairs of words
- v. Idioms and Phrases

## Part-II

### English Literature:

5. History of English Literature (British, American, Colonial and Post-Colonial Writing) From the 14<sup>th</sup> century up to the 21<sup>st</sup> century:

Poetry, Drama, Prose, Novel, Criticism, Biography, Autobiography, Short-Stories ( General Introduction of eminent poets, dramatists, novelists, prose-writers, short-story writers, autobiographers, biographers, popular writers)

### 6. Fiction and Drama (Critical Study and Explanation):

1. Kanthapura : Raja Rao
2. A passage to India : E.M Forster
3. Macbeth : William Shakespeare
4. Arms and the Man : G.B. Shaw

### 7. Poetry (Critical Study and Explanation):

1. The Quality of Mercy : William Shakespeare
2. The Little Black Boy: William Blake
3. The Solitary Reaper : William Wordsworth
4. Mutability : P.B. Shelley
5. I think Continually of Those who were Truly Great
6. Heaven of freedom : Rabindranath Tagore
7. A Soul's Prayer : Sarojni Naidu

### 8. Prose (Critical Study and Explanation)

1. On Habits : A.G. Gardiner
2. Playing the English Gentlemen : Mahatama Gandhi
3. India Again : E.M. Forster
4. Of Studies : Francis Bacon
5. Mr. Know All: Somerset Maugham
6. The Homecoming : Rabindranath Tagore
7. The Cherry Tree : Ruskin Bond

### 3. Essay: On any socio-economic or current topic

1x15=15 marks

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**Paper-III**

**Social Sciences (History and Geography)**

**Total Marks: 200**

**Time: 3 hours**

The question –paper of Social Sciences shall have two distinct sections, one of History and the other one of Geography each of 100 marks. The candidates will be required to answer one Compulsory and two optional questions from each i.e. Six Questions in all. The compulsory question of each section, covering the entire syllabus of the concerned section, shall have ten objective type questions, each of two marks (10x2=20 marks). In addition, there shall be four optional questions in each section of History and Geography. Since there are four distinct sub-sections, both in History and Geography. One question will be drawn from each sub-section as to make a total of four optional questions in each of the two distinct sections of History and Geography; of which candidates will be required to answer only two questions; each of 40 marks. The optional question shall be answered in the traditional, descriptive style, requiring long-answers.

**Section (A) - History: 100 marks**

**(a) Ancient Period:**

1. The Indus Valley Civilization: Origin, antiquity, extent, authorship and main feature.
2. Origin of the Aryans.
3. Antiquity and stratification of the Vedic literature, Society, economy and religion during Early (Rig-Vedic) Period.
4. The Lichchavis and their republican constitution.
5. The Rise of the Magadhan Empire.
6. The Mauryas : Extent of empire, Kalinga war and its impact; Asoka's Dhamma, Foreign Policy, Development of Art and architecture during the Mauryan Period.
7. The Kushanas : Kanishka : Extent of empire, His religious Policy; Development of Art, Architecture and letters during the Kushana period.
8. The Guptas : Extent of empire; development of Language and literature, art & architecture during the Gupta period
9. Harsha-Vardhan : The last great Hindu ruler of Northern India, cultural achievements during his period.
10. The Cholas : maritime activities in South-east Asian countries, Chola administration, art & architecture.
11. Cultural Achievements of the Pallavas.

**(b) Medieval Period:**

12. The Arab invasion of India.
13. The Ghaznavid Invasion of India.
14. The Delhi Sultanate: Market and Military Reforms of Allauddin Khilji, Utopian policies of Muhammad-bin-Tughlaq.
15. The Mongol invasion of India.
16. Religious Movements : (a) Sufism, (b) Bhakti Movement,
17. Dawn of a New-Islamic Culture: Indo-Islamic architecture, Development of Urdu and Hindi Languages.
18. The Mughals : First Battle of Panipat, Achievements of Sher Shah Suri, Consolidation of Mughal empire; Establishment of Jagirdari and Mansabdari systems under Akbar, Akbar's Religious and Rajput policies, Aurangzeb's Religious and Rajput policies, Mughal Architecture and Painting, Economic Condition during Mughal Period.
19. The Rise of the Marathas: Achievements of Shivaji, Northward expansion of the Marathas and their downfall.

### (c) Modern Period:

20. Beginning of European settlements: formation and growth of East India Company, Consolidation of British power in India: Battles of Plassey and Buxar, Control over Mysore, Subsidiary Alliance, Doctrine of Lapse, and Doctrine of Escheat.
21. Resistance to Colonial Rule; Peasant; Tribal and Cultural Renaissance; Revolt of 1857.
22. Social Reforms Movements in Hindu Community: Brahma Samaj, Arya Samaj, Ram Krishna Mission, Prarthana Smaj and Theosophical Society of India.
23. Social Reforms Movements in Muslim Community: Wahabi Movement & Aligarh Movement.
24. Struggle for raising women's Status: Abolition of Sati System, Widow Marriage Act, Consent Bill, and Stress on Female Education.
25. Land Revenue Administration under the British rule: Permanent Settlement, Ryotwari & Mahalwari Systems.
26. Rise of Nationalism in India in the 19<sup>th</sup> century: Formation of Indian National Congress: Moderates and Extremists, Swadeshi Movement, Home Rule League Movement, Khilafat Movement.
27. Mahatma Gandhi and Mass Politics: Non-Co-operation Movement, Civil Disobedience Movement, Quit India Movement.
28. The partition of India and its consequences.
29. India after independence: Integration of Princely states in Indian Union, Linguistic Reorganization of States; Non-aligned policy under Nehru and Indira Gandhi, Liberation of Bangladesh.

### (d) History of Jharkhand

30. Adi-dharma i.e. Sarana cult of Jharkhand Tribals;
31. Concept of Sadan and emergence of Nagpuri Language;
32. Tribal Revolts in Jharkhand and Nationalist struggle;
33. Birsa Movement
34. Tana Bhagat Movement, and
35. Freedom Movement in Jharkhand.

## Section (B)- Geography : 100 Marks

### (a) Physical Geography (General Principles):

1. Origin and Evolution of earth, interior of earth, Wegner's Continental Drift Theory, Plate tectonics, Volcanoes. Earthquakes and Tsunamis.
2. Major Types of rocks and their characteristics, evolution and characteristics of landforms in the Fluvial, Glacial, Arid and Karst regions.
3. Geomorphic processes: Weathering, mass wasting, erosion and deposition, soil formation', Landscape cycles, ideas of Davis and Penck.
4. Composition, Structure and Stratification of the atmosphere.
5. Insolation, heat budget of the earth .
6. Horizontal and vertical distribution of temperature, inversion of temperature
7. Air masses and fronts, Tropical and temperate cyclones .
8. Evaporation and Condensation: dew, frost, fog , mist and cloud , rainfall types.

9. Classification of climates, (Koppen and Thornthwaite) Greenhouse effect, global warming and climatic changes.
10. Hydrological cycle, distribution of temperature and salinities in the oceans and seas, waves, tides and currents, ocean floor relief features.

### **(b) Physical and Human Geography of India:**

11. Structure, relief and physiographic divisions, Drainage systems: Himalayan and the Peninsular.
12. Indian monsoon, mechanism, onset and retreat, climatic types (Koppen and Trewartha). Green Revolution and its impact on major crops of India Food scarcity.
13. Natural Vegetation –Forest types and distribution, wild life, conservation, biosphere reserves.
14. Major types of Soils. (ICAR Classification) and their distribution; Soils Degradation and conservation.
15. Natural Hazards: Floods Droughts, Cyclones, Landslides.
16. Population growth, distribution and density.
17. Age: Sex, Ratio, rural-urban composition.
18. Population, environment and development.
19. Types of Settlements: rural and urban, Urban morphology, functional classification of urban settlements: Problems of human settlement in India.

### **(c) Natural Resources of India: Development and Utilization**

20. Land Resources: General land use, agricultural land use, geographical condition and distribution of major crops, like, rice, wheat, cotton, jute, sugarcane, rubber, tea and coffee.
21. Water Resources: Availability and utilization for industrial and other purposes, irrigation, scarcity of water, methods of conservation-rain water harvesting and watershed management, ground water management,
22. Minerals and Energy Resources: Distribution and Utility of (a) metallic minerals (iron ore, copper, bauxite, manganese) (b) non-metallic and conventional minerals ( coal, petroleum and natural gas), (c) hydro electricity and non conventional sources of energy ( Solar, Wind, bio-gas), (d) energy sources, their distribution and conservation.
23. Development of Industries: Types of industries, factors of industrial location, distribution and changing pattern of selected industries (iron and steel, cotton textile, sugar and petrochemicals), Weber's theory of industrial location-its relevance in the modern world.
24. Transport, Communication and international Trade: (a) Roads, Railway and water Ways. (b) Bases of International trade, changing pattern of India's foreign trade. (c) Geography of Jharkhand and Utilization of its Resources :

### **(d) Geography of Jharkhand and Utilization of its Resources**

25. Geological history, landforms, drainage, climate, soil types and forests, agriculture and irrigation, Damodar & Suberna rekha valley projects, mineral resources of Jharkhand, their extraction and utilization.
26. Population: Growth, distribution, density, Tribal population and their distribution, Problems of Tribes and Tribe development plans, their customs rituals, festivals etc.
27. Industrial and urban development, Major industries-Iron, steel and Cement, Cottage industries.
28. Pattern of urban settlement and Pollution Problems.



**Paper-IV**

**Indian Constitution & Polity, Public  
Administration & Good Governance**

**Total Marks : 200**

**Time : 3 hours**

The question –paper of the Indian Constitution, Polity and Public Administration shall consist of two distinct sections i.e. one on Indian Constitution and polity, and the other one on public Administration & Good Governance, each of 100 marks. The candidates will be required to Answer one compulsory and two optional Questions from each section. The compulsory question of each section, covering the entire syllabus of the concerned section, shall have ten objective type of questions, each of two marks (10x2=20). In addition, there shall be four optional questions in each section, of which candidates will be required to answer only two questions, each of 40 marks. The optional questions shall be answered in the traditional, descriptive Form; requiring long answers.

**Section (A)- Indian Constitution and Polity**

1. Preamble of the Indian Constitution (Secular, Democratic and socialist)- Philosophy behind it.
2. Salient features of the Indian Constitution. Concept of Public Interest Litigation; Basic structure of the Indian Constitution.
3. Fundamental Rights & Duties.
4. Directive Principles of State Policy.
5. Union Government:
  - (a) Union Executive: Powers and Functioning of President, Vice President, Prime Minister and the Council of Ministers : Functioning under a Coalition Government.
  - (b) Union Legislature : Lok Sabha and Rajya Sabha : Organization and Functions ; Law making process; Parliamentary Committees; Parliament's Control over Executive; Privileges and immunities of Parliament and its Members.
  - (c) Union Judiciary: The Supreme Court : its role and powers, Principles of Natural Justice & Rule of Law, Judicial Review and Judicial Activism;
6. State Government:
  - (a) State Executive: Powers and functions of Governor, Chief Minister and the Council Ministers.
  - (B) State Legislature: organization, Powers and functions, with special reference to Jharkhand.
  - (c) State judiciary: high Court: Organization, Powers & functions, Subordinate Judiciary.
  - (d) Panchayat & Municipalities: constitution, Powers Functions and responsibilities with special reference to 73<sup>rd</sup> and 74<sup>th</sup> Constitutional amendments.
7. Centre-State Relationship: Administrative, Legislative and Financial.
8. Provision relating to administration of scheduled Areas and scheduled Tribal Areas.
9. Special provision relating to reservation of seats for S.C. and S.T. in Legislature, Services etc.
10. Emergency Provisions of the Constitution.
11. Comptroller & Auditor-General of India (CAG).
12. Election Commission of India.
13. Political Parties and Pressure Groups.

## Section (B)- Public Administration & Good Governance

14. Public Administration: Introduction, meaning scope and significance.
15. Public and Private Administration.
16. Union Administration: Central Secretariat, Cabinet Secretariat, Prime Minister's office, Planning Commission, Finance Commission.
17. State Administration: State Secretariat, Chief Secretary, Chief Minister's Office.
18. District Administration: origin and development of the office the District Magistrate and Collector: Changing Role of the District Collector; Impact of the Separation of Judiciary on District Administration.
19. Personnel Administration: Recruitment of Civil Services: Union Public Service Commission and the State Public Service Commission; Training of Civil Servants; Leadership and its qualities, Employee's Morale and Productivity.
20. Delegation, Centralization and decentralization of authority.
21. Bureaucracy: Origin, its merits and demerits; Role of Bureaucracy in policy formulation and its implementation. Nexus between Bureaucracy and political Executive; Generalist versus Specialist.
22. Development Administration.
23. Disaster Management: Causes, Meaning and Classification of Disaster; Mitigation: Immediate and long- term measures.
24. Good Governance: Meaning and concept of Good and Responsive Governance; Main features of Good Governance: Accountability Transparency, Honesty and Quick Delivery; Role of Civil Society and Peoples Participation in Good Governance. Grievance Redresal Mechanism : Lokpal, Lokayukta, Central Vigilance Commissioner; Citizen's Charter : Object, machinery and Measures provided in (i) Right to service Act; (ii) Right to information Act ;(iii) Right to Education Act (iv) The Consumer Protection Act; (v) Domestic Violence Against Women (Prevention ) Act; (vi) Old age Act.
25. Human Rights : Concept and Meaning : Universal Declaration of Human Rights, National Human Rights Commission; State Human Rights Commission; Human Rights and Social Issues; human Rights and Terrorism.

### Paper-V

## Indian Economy, Globalization and Sustainable Development

**Total Marks: 200**

**Time: 3 hours**

The question-paper on Indian Economy, globalization and Sustainable Development shall consist of five sections. Section I Shall be compulsory. This section shall contain twenty objective questions each of 2 marks (20x2=40) marks. The twenty objective questions of this section from shall be drawn from the entire syllabus of the paper; of which 6 questions will be drawn from Group-A,6 from Group- B, 4 from Group C and 4 from Group D of the syllabus. Section II, III,& V of the question paper shall have two optional questions each; drawn respectively from Group-A,B,C & D of the syllabus, of which the candidates will be required to answer one question from each group carrying 40 marks each and 4 optional questions, each carrying 40 marks. The optional questions shall be answered in the traditional, descriptive form; requiring long answers.

### **Group (A) – Basic features of Indian Economy**

1. **National Income:** elementary concepts of national income and methods of its calculation e.g. GDP, GNP, NDP, NNP, GSDP, NSDP, DDP at constant and current prices, at factor cost etc.
2. **Inflation:** Concept Control of Inflation: monetary, fiscal and direct measures.
3. **Demographic features:** Work force composition. Demographic dividend with special reference to census of 2011, national Population Policy.
4. **Agriculture and Rural Economy :** Importance of agriculture in national economy; agricultural growth in India production & productivity; causes of low productivity and measures taken by government to improve agricultural production; Green Revolution, Ever Green Revolution and Rainbow revolution; WTO and agriculture, Marketing and pricing of agricultural inputs and outputs.
5. **Industrial Economy:** Policy initiative & Charges.
6. **Public Finance: Nature,** importance and scope of **Public** finance; public Revenue-Principles and types of taxation; direct, indirect, progressive and proportional, concept of VAT.
7. **Public Expenditure:** Theories of public expenditure; causes of growth of public expenditure and its impact on economy; internal and external borrowings.
8. **Budget:** Principles of budgeting; types of budgeting Performance-based. Zero-based; FRMD.
9. **Fiscal Policy:** Concept and role of fiscal policy in achieving employment, stability and economic development.
10. Centre-State fiscal relationship, role of Finance Commission; Financial aspects of 73<sup>rd</sup> and 74<sup>th</sup> Constitutional amendments.
11. Structure of Indian monetary and banking system in India.
12. (a) Composition and direction of India's trade; Balance of payment problem.

### **Group (B)- Sustainable Development, Economic Issues and Indian Development Strategy**

13. Meaning and Measurement of Economic development; Characteristics of under Development.
14. Indicators of development: HDI, GDI, GEM, India's HDI progress.
15. Role of Foreign capital & technology in growth of economy.
16. Sustainable development: concept and indicators of sustainable development. Economic, social and environmental Sustainability, concept of Green GDP, Strategy and policy of sustainable development in India.
17. Meaning of inclusive growth and development policy and strategy during 11<sup>th</sup> and 12<sup>th</sup> five year plans.
18. Development status and issues pertaining to socially and economically marginalized sections, like STs, SCs, religious minorities, backward castes and women, schemes launched for their development by Central/State Governments, including TSP, SCSP and minorities.
19. Poverty and Un-employment; Measurements and trends, identification of BPL families, HPI, Multi-Dimensional, Indian Poverty Index.
20. Food and Nutritional Security: Trends in Food production and consumption in India; Problem of Food Security: Problems and issues of storage; procurement, distribution, import and export; Government policies, Schemes and programmes such as, PDS, ICDS and Mid-day Meal etc.
21. Governmental Policies for food and nutritional security.
22. Planning strategy: Objectives and strategy of Indian Five year Plans, Functions and Role of NDC, Planning Commission.
23. Decentralized Planning: Meaning and importance PRIS, and decentralized planning; major initiatives in India.

### **Group (C) Economic Reforms, Nature and Impact on Indian Economy**

24. New economic Reforms- Liberalization, Privatization and Globalization, rationale and need for reforms, international financial institutions IMF, World Bank, WTO, their role and impact on Indian economy.

25. Financial and Banking sector reforms, economic reforms and rural banking impact on rural credit: sources and problems of rural credit, institutional credit, SHG, micro finance, NABARD, RRBs, Scheduled Commercial Banks, rural co-operatives. Financial inclusion.
26. Globalization of Indian economy: its positive and negative impacts on different sectors, issues of FDI and FII in India.
27. Agricultural sector reforms and its impact on growth issues of subsidies and public investment on agriculture reforms and agrarian crisis.
28. Industrial development and Economic reforms in India Major changes in industrial policy, its impact on industrial growth and problems of SMEs,; role of Public Sector enterprises in India's Industrialization in post reforms period, Disinvestment and Privatization of Public enterprises.

#### **Group (D) - economy of Jharkhand: features, issues, Challenges and Strategies**

29. Economic growth and structure of Jharkhand's economy, Sectoral composition, growth in SDP and per capital NSDP in last decade, Agricultural and industrial growth in Jharkhand.
30. Demographic features of Jharkhand : Population growth sex ratio, density, literacy, composition of work force, rural- urban composition etc. with special reference to Census of 2001 and 2011, inter district variations.
31. Status of poverty, unemployment, food security, malnutrition, issues of agricultural and rural development, major programs and schemes; poverty alleviation programmes; PURA, Bharat Nirman, MGNREGA, PMGSY,SGSY, IAY, NRLM etc. Food security schemes.
32. Land, Forest and environment issues in Jharkhand : land reforms and agrarian relations, tribal land alienation, development induced displacement of people; its impacts and policy initiatives; Forest issues and implementation of FRA, Environmental degradation and State policy to deal with to,
33. Five year plans in Jharkhand strategy and achievement in X<sup>th</sup> and XI<sup>th</sup> plan, TSP and SCSP, Public finance trends in Jharkhand, Industrial policy in Jharkhand and industrial development.

### **Paper-VI**

#### **General Science, Environment & Technology Development**

**Total Marks: 200**

**Time: 3 hours**

The question paper of General Science, Environment & Technology Development shall have six sections. Section-1, shall have 20 objective types of questions, each of 2 marks (20x2=40 marks). Questions for this section will be drawn at the rate of four questions from each of the five Groups of the syllabus. Sections II, III,IV, V and VI of the question paper shall have two optional questions each, drawn respectively from Group A,B,C D and E of the syllabus; of which candidates will be required to answer only one questions from each groups, each question carrying 32 marks. Optional questions shall be answered in the traditional manner, requiring descriptive answers, not exceeding 500 to 600 words. Thus, altogether candidates will be required to answer one objective type compulsory question ( 40 marks ) and five descriptive type optional questions ( 5x32= 160 marks).

#### **Group A – Physical Science**

- I. System of Unity : MKS, CGS and SI
- II. Definition of speed, velocity, gravity, mass, weight, force, impact, work, power and energy.
- III. Solar system, relative position of Earth with respect to Sun and other planets, movement of earth and moon in solar system, Lunar and solar eclipses.



- IV. Concept and nature of sound, Wave length and frequency, Infrasonic and Ultrasonic Sounds, Sources of infrasonic sound in nature. Ultrasonic sound characteristics and some applications.

#### **Group B – Life Science**

1. The living world, Cell-Structure and its functions, Diversity of organism.
2. Bio molecules : Structure and function of carbohydrates, proteins and fats, Vitamins and deficiency diseases, Enzymes, Hormones- Plant hormones and growth regulation, Animal hormones and their functions.
3. Cell reproduction: Cell cycle, Mitosis and Meiosis.
4. Medallion Inheritance: Monohybrid and Dihybrid cross, sex linked Inheritance, sex Determination, DNA Structure & Function, DNA Replication, Protein synthesis, Gene Regulation, Molecular basis of differentiation.
5. Theories of Evolution of Life on earth, including Human Evolution.

#### **Group C – Agriculture Science**

1. Different agro – climatic zones of Jharkhand, rain fall pattern and known biotic stresses in each zone.
2. Rain fed agriculture, Conventional food and horticultural crops of the state, Need for diversification of crops for food as well as nutritional security in the wake of climate change; Rain water harvesting and its role in improving agriculture output in Jharkhand; Fish farming.
3. Soil fertility status of Jharkhand – application of vermin compost and Farm yard manure (FYM) for improving soil health, nitrogen fixing bacteria, their applications and concept of organic farming.
4. Concept of Agro-forestry. Waste land and means to reclaim them.
5. Government Schemes for the benefit of the farmers of the state.

#### **Group D – Environmental Science**

Concept of Ecosystem, Structure and Function of Ecosystem, Natural resources – Renewable and Nonrenewable resources, Environmental Conservation-in situ and ex situ conservation, Pollution – Air , Water , Sound and Soil Solid Waste management, Biodiversity : Concept, hotspots, threats to Biodiversity; Global Environmental Issues: Climate Change, Global warming, ozone layer depletion, Acid rain, Desertification, Environmental Laws – The Environment (Protection) Act, The Air (Prevention & Control of Population) Act, The Water (Prevention & Control of Pollution) Act, Forest Conservation Act.

#### **Group E – Science & Technology Development**

National Policy on Science and Technology: Energy demand of the country; Conventional and Non-Conventional Sources of energy; Nuclear Energy: its merits and demerits; Trends in Nuclear Policy, NPT and CTBT. Space Technology –Indian Space programmers ; Application of Satellites for different purposes, Indian missile programmers, Remote sensing : GIS and its application in weather forecasting ,disaster warning, mapping of water, soil, and mineral resources etc, Use of Biotechnology in agriculture, animal breeding, pharmaceuticals, food technology and environmental conservation : Possible adverse effects of biotechnological interventions; information technology: Computers and its application in data processing, data programmers, Cybercrime and cyber laws. National Health Policy: national Parogrammes for Prevention and control of Malaria leprosy, T.B Cancer, Aids, Blindness etc.