

राज्य सेवा (पूर्व) परीक्षा
State Services (Preliminary) Examination

SCHEME OF EXAMINATION

Paper No.	Marks	Duration	Standard	Medium	Nature of Paper
Paper I (Compulsory)	200	Two hours	Degree	Marathi & English	Objective Type
Paper II (Qualifying)	200	Two hours	Topic No.(1) to (5) Degree level Topic No.(6) class X level Topic No. (7) class X/XII level		

टीप - सामान्य अध्ययन पेपर क्रमांक २ (CSAT) हा अर्हताकारी (Qualifying) असून अर्हताप्राप्त करण्यासाठी किमान ३३% गुण मिळविणे आवश्यक राहिल. या पेपरमध्ये किमान ३३% गुण प्राप्त करणाऱ्या उमेदवारांची पेपर क्रमांक १ मधील गुणांच्या आधारे राज्यसेवा मुख्य परीक्षेसाठी गुणवत्ता यादी तयार करण्यात येईल.

नकारात्मक गुणदान - पेपर क्रमांक १ करीता व पेपर क्रमांक २ मधील “Decision making & Problem Solving” चे प्रश्न वगळून उर्वरित प्रश्नांकरिता नकारात्मक गुणदान लागू राहिल.

१) प्रत्येक चुकीच्या उत्तराकरीता २५% किंवा १/४ एवढे गुण एकूण गुणांमधून वजा/ कमी करण्यात येतील.

२) एखाद्या प्रश्नाची एकापेक्षा अधिक उत्तरे दिली असल्यास अशा प्रश्नाचे उत्तर चुकीचे समजण्यात येऊन त्या प्रश्नाच्या उत्तराकरीता २५% किंवा १/४ एवढे गुण एकूण गुणांमधून वजा/कमी करण्यात येतील.

३) वरीलप्रमाणे कार्यपध्दतीचा अवलंब करताना एकूण अंतिम गुणांची बेरीज अपूर्णाकात आली तरीही ती अपूर्णाकातच राहिल व पुढील कार्यवाही त्याच्या आधारे करण्यात येईल.

४) एखाद्या प्रश्नाचे उत्तर अनुत्तरित असेल तर, अशा प्रकरणी नकारात्मक गुणांची पध्दत लागू असणार नाही.

SYLLABUS

Paper I - (200 marks)	
(1)	Current events of state, national and international importance.
(2)	History of India (with special reference to Maharashtra) and Indian National Movement.
(3)	Maharashtra, India and World Geography - Physical, Social, Economic Geography of Maharashtra, India and the World.
(4)	Maharashtra and India - Polity and Governance - Constitution, Political System, Panchayati Raj, Urban Governance, Public Policy, Rights issues, etc.
(5)	Economic and Social Development - Sustainable Development, Poverty, Inclusion, Demographics, Social Sector initiatives, etc.
(6)	General issues on Environmental Ecology, Bio-diversity and Climate Change - that do not require subject specialisation.
(7)	General Science.

Paper II - (200 marks)	
(1)	Comprehension
(2)	Interpersonal skills including communication skills.
(3)	Logical reasoning and analytical ability.
(4)	Decision - making and problem - solving.
(5)	General mental ability.
(6)	Basic numeracy (numbers and their relations, orders of magnitude, etc.) (Class X level), Data interpretation (Charts, graphs, tables, data sufficiency etc.- Class X level)
(7)	Marathi and English Language Comprehension skills (Class X/XII level)

- **Note 1** : Questions relating to Marathi and English Language Comprehension skill of Class X/XII level (last item in the Syllabus of Paper II) will be tested through passages from Marathi and English language without providing cross translation thereof in the question paper.
- **Note 2** : The questions will be of multiple choice, objective type.
- **Note 3** : It is mandatory for the candidate to appear in both the Papers of State Services (Prelim) Examination for the purpose of evaluation. Therefore a candidate will be disqualified in case he / she does not appear in both the papers of State Services (Prelim) Examination.

दिनांक -१७/०५/२०२२

अवर सचिव
महाराष्ट्र लोकसेवा आयोग

राज्य सेवा (मुख्य) परीक्षा -२०२० पासून

State Service (Main) Examination — from -2020

सूचना -१. सन २०२० च्या राज्य सेवा (मुख्य) परीक्षेपासून सामान्य अध्ययन I, II, III, IV या चार विषयांच्या प्रश्नपत्रिकांचे अभ्यासक्रम सुधारित करण्यात आले असून पेपर क्र. १ व पेपर क्र. २ (मराठी व इंग्रजी) विषयांच्या प्रश्नपत्रिकांच्या अभ्यासक्रमात कोणताही बदल करण्यात करण्यात आलेला नाही. तसेच परीक्षा योजनेत बदल करण्यात आलेला नाही.

२. प्रत्येक चुकीच्या उत्तराकरीता २५% किंवा १/४ एवढे गुण एकुण गुणांमधून कमी करण्यात येतील

३. प्रस्तूत पदाची परीक्षा योजना व अभ्यासक्रम खालील प्रमाणे राहिल.

-: परीक्षा योजना :-

परीक्षेचे टप्पे :- लेखी परीक्षा -८०० गुण
प्रश्नपत्रिकांची संख्या : - सहा (अनिवार्य)

मुलाखत -१०० गुण

पेपर क्र. व संकेतांक	विषय	गुण	प्रश्न संख्या	दर्जा	माध्यम	कालावधी	प्रश्नपत्रिकेचे स्वरूप
१ (अनिवार्य) (संकेतांक ०४२)	मराठी	५०	--	उच्च माध्यमिक शालांत परीक्षा	मराठी	तीन तास	पारंपरिक/ वर्णनात्मक
	इंग्रजी	५०	--	उच्च माध्यमिक शालांत परीक्षा	इंग्रजी		
पेपर क्र.१ मधील दोन्ही विषयांसाठी एकच संयुक्त प्रश्नपत्रिका राहिल. मात्र दोन्ही भागांसाठी दोन स्वतंत्र उत्तरपुस्तिका राहतील.							
२ (अनिवार्य) (संकेतांक ०४३)	मराठी	५०	--	पदवी	मराठी	एक तास	वस्तुनिष्ठ बहुपर्यायी
	इंग्रजी	५०	--	पदवी	इंग्रजी		
पेपर क्र. २ मधील दोन्ही विषयांसाठी एकच संयुक्त प्रश्नपुस्तिका व उत्तरपत्रिका राहिल.							
३ (अनिवार्य) (संकेतांक ०३१)	सामान्य अध्ययन (पेपर-१)	१५०	१५०	पदवी	मराठी व इंग्रजी	दोन तास	वस्तुनिष्ठ बहुपर्यायी
४ (अनिवार्य) (संकेतांक ०३२)	सामान्य अध्ययन (पेपर-२)	१५०	१५०	पदवी	मराठी व इंग्रजी	दोन तास	वस्तुनिष्ठ बहुपर्यायी
५ (अनिवार्य) (संकेतांक ०३३)	सामान्य अध्ययन (पेपर-३)	१५०	१५०	पदवी	मराठी व इंग्रजी	दोन तास	वस्तुनिष्ठ बहुपर्यायी
६ (अनिवार्य) (संकेतांक ०३४)	सामान्य अध्ययन (पेपर-४)	१५०	१५०	पदवी	मराठी व इंग्रजी	दोन तास	वस्तुनिष्ठ बहुपर्यायी

-: अभ्यासक्रम :-

पेपर क्रमांक-१ मराठी व इंग्रजी (पारंपरिक / वर्णनात्मक)	
क्रमांक	विषय
१	भाग-१ मराठी (एकूण -५० गुण)
	निबंध लेखन – दोनपैकी एका विषयावर सुमारे ४०० शब्द
	भाषांतर- इंग्रजी उताऱ्याचे मराठीत भाषांतर, सुमारे अर्धे पान/२ परिच्छेद
	सारांश लेखन
२	भाग-२ इंग्रजी (एकूण -५० गुण)
	1) Essay writing- An essay on one out of the two given topics/subject (About 400 words)
	2) Translation – Marathi paragraph to be translated into English, approximately 1/2Page/ paragraphs
	3) Precis writing
पेपर क्रमांक-२ मराठी व इंग्रजी (वस्तुनिष्ठ / बहुपर्यायी)	
क्रमांक	विषय
१	मराठी (एकूण -५० गुण)
	व्याकरण – म्हणी, वाकप्रचार, समानार्थी/विरुद्धार्थी शब्द, शुध्दलेखन/विरामचिन्हे, इत्यादी
	आकलन- उताऱ्याखालील प्रश्नांची उत्तरे लिहिणे.
२	English (एकूण -५० गुण)
	Grammar – Idioms, Phrases, Synonyms/ Antonyms, Correct formation of words and sentences, Punctuation, etc.
	Comprehension

For GS-I see next page

GENERAL STUDIES –I
HISTORY AND GEOGRAPHY

Standard: Degree.

Nature of Paper: Objective Type.

Total Marks : 150

Duration : 2 Hours

Note:

- (1) The Nature and standard of questions in the paper will be such that a well-educated person will be able to answer without any specialised study and its intention is to test candidate's general awareness of a variety of subjects.
- (2) It is expected from the candidates to study the latest and recent developments and happenings pertaining to the topics/sub topics mentioned below.

1. HISTORY :

- 1.1 Establishment of the British Rule in India:** Arrival of the British East India Company, Wars against major Indian powers, Policy of subsidiary alliance, Doctrine of Lapse, Structure of British Raj upto 1857.
- 1.2 History of Modern India:** Introduction of modern education - Press, Railway, Post and Telegraph, Industries, Land reforms and Socio-religious reforms and their impact on society.
- 1.3 Renaissance Era :**
 - 1.3.1 Social and Cultural Changes** - Contacts with Christian Missionaries, Role of English education and the press, Official- social reform measures (1828 to 1857).
Socio-religious reform movements: Brahmo Samaj, Prarthana Samaj, Satyashodhak Samaj, Arya Samaj, Ramkrishna mission and Theosophical Society.
 - 1.3.2** Reform movements among the Sikhs and the Muslims, Depressed Classes Mission, Non-Brahmin movement and Justice Party.
- 1.4 Indian Economy under Colonial Rule:**
The Mercantile phase, The Drain of the Wealth- The Drain Theory of Dadabhai Naoroji, de-industrialization- Decline of Indian Handicrafts, Commercialization of Indian Agriculture.
Rise of Modern Industry – Role of Indian mercantile communities, Entry of British Finance Capital in India, Tilak's Swaraj Fund and contribution of G. K. Gokhale.
- 1.5 Emergence and growth of Indian Nationalism:**
Social background, formation of National Associations, Role of Press and Education in social awakening in pre-independent India, Revolt of 1857, foundation of Indian National Congress, the moderate phase, growth of extremism, Partition of Bengal, Home Rule Movement,
Role of important personalities- Surendranath Banerjee, Firozshah Mehta, Dadabhai Naoroji, A. O. Hume, Bipinchandra Pal, Lala Lajpat Rai, Annie Besant, Aurobindo Ghosh, Bal Gangadhar Tilak, Mahatma Gandhi, Pandit Jawaharlal Nehru & Others.
- 1.6 Famous movements against British Government: -**
 - 1.6.1-** Peasant uprisings, Tribal uprising - Mutinies of – Raghaji Bhangre, Umaji Naik, etc. and Adivasi Movements.
 - 1.6.2-** Revolutionary Movements: Revolts in Maharashtra-Vasudeo Phadke, Abhinav Bharat, Revolutionary Movements in Bengal & Punjab, Revolutionary movements of Indians in America, England, Azad Hind Sena.
 - 1.6.3-** Communist (Leftist) Movement: The Communists and the Indian freedom struggle, Congress Socialist Party, Trade Union Movement.
- 1.7 National movement in Gandhian Era and Dr. B.R. Ambedkar's approach to the problem of untouchability:**
Gandhiji's leadership and ideology of resistance, Gandhian mass movements, Non- cooperation movement, Civil Disobedience movement, Faizpur Congress session of 1936, Individual Satyagraha, Quit India Movement, Gandhiji and removal of untouchability.
Dr. B. R. Ambedkar's approach to problem of untouchability, Movements for Annihilation of Caste - Dr. Ambedkar's approach, Gandhiji's approach, Other Efforts; Unionist Party and Krishak Praja Party, Women's participation in the National movement.
States' Peoples' movements.
- 1.8 Constitutional Development under British Government:**
The Indian Council Act-1861, The Indian Council Act-1892, The Indian Council Act-1909 (Morley-Minto reforms), The Government of India Act 1919 (Mont-Ford reforms), The Government of India Act 1935.
- 1.9 Growth of Communalism and the Partition of India:** Muslim politics and Freedom movement (Sir Syed Ahmed Khan and Aligarh movement, Muslim League and Ali Brothers, Iqbal, Jinnah), Politics of Hindu Mahasabha.
- 1.10 Toward the Transfer of Power:** The August Offer 1940, The Cripps Mission 1942, The Wavell Plan 1945, The Cabinet Mission Plan 1946, The Mountbatten Plan 1947, The Indian Independence Act 1947
- 1.11 India after Independence:** Consequences of Partition, Integration of Princely states, Linguistic reorganization of states, Sanyukta Maharashtra movement – Involvement of major political parties and personalities *involved* therein, Relations with neighbouring countries, India's role in International Politics : Non- alignment policy- Nehru, Lal Bahadur Shastri, Indira Gandhi; Progress in Agriculture, Industry, Education, Science and Technology, Emergence of Indira Gandhi's Leadership, Liberation of Bangladesh, Coalition Governments in States, Students' unrest, Jayaprakash Narayan and Emergency. Terrorism in Kashmir, Panjab and Assam, Naxalism and Maoism, Environmental Movement, Women's Movement and Ethnic Movement.

- 1.12 Selected Social Reformers of Maharashtra-** Their ideology and work: Gopal Ganesh Agarkar, Mahatma Phule, Justice M. G. Ranade, Prabodhankar Thakare, Maharshi Karve, Rajarshi Shahu Maharaj, Maharshi Vitthal Shinde, Dr. Babasaheb Ambedkar, Lokmanya Tilak, Sarvajanic Kaka Ganesh Vasudeo Joshi, Pandita Ramabai, Dadoba Pandurang Tarkhadkar, Dr. Panjabrao Deshmukh, Lokhitwadi Gopal Hari Deshmukh, Justice K. T. Telang, Dr. Bhau Daji Lad, Acharya Balshastrri Jambhekar, Jagannath Shankarsheth, Gopal Krishna Gokhale, Kalkarte Shivram Mahadeo Paranjape, Vishnushastri Chiplunkar, D. K. Karve, R. D. Karve, Vinoba Bhave, Vinayak D. Sawarkar, Annabhau Sathe, Krantiveer Nana Patil, Lahuji Salve, Karmaveer Bhaurao Patil, Vishnubuva Brahmachari, Senapati Bapat, Rashtrasant Tukadoji Maharaj, Baba Amte, Sant Gadge Baba.
- 1.13 Cultural Heritage of Maharashtra (Ancient to Modern):** Kanheri, Elephanta, Ajanta, Ellora caves, Lonar lake, Forts, etc. **Performing Arts** - Dance, Drama, Films, Music, Folk Arts - Lavani, Tamasha, Povada, Bharud, and other folk dances, Visual Arts -Architecture, Painting and Sculpture. Festivals. Impact of Literature and Saint literature on socio-psychological development of Maharashtra: Bhakti, Dalit, Urban and Rural Literature.

2. GEOGRAPHY – (With Special Reference to Maharashtra) :

2.1 Geomorphology:

Interior of the Earth. Composition and physical conditions. Endogenic and Exogenic Forces, Rocks and Minerals. Controlling factors on Evolution of the Landforms. Concept of the Geomorphic cycles. Landforms associated with Fluvial, Desert, Glacial and Coastal Regions. Evolution and Geomorphology of the Indian Sub-Continent. Major Physiographic Divisions of the India. Physiography and the geomorphic features of the Maharashtra State. Natural Landscapes in Maharashtra- Hills, Ridges, Table lands, Spot holes. Water falls. Hot springs and Beaches.

2.2 Climatology:

Atmosphere- Composition and structure, Extent, Elements of weather and climate. Solar Radiation and Heat Balance on the Earth surface. **Temperature-** Vertical and Horizontal distribution of temperature on the Earth surface. **Air pressure-** Winds, Planetary and Local winds. Monsoons in Maharashtra. Distribution of Rainfall, Droughts, Floods and its problems.

2.3 Human Geography :

School of thoughts in Human Geography. Determinism and Possibilism, Stop and Go Determinism, Different approaches to achieve Development.

Human settlements- Rural Urban settlements- site, situation, Types, size, spacing and Morphology. Major Problems of Rural and Urban Settlements. Rural-Urban Fringe, Urbanisation : Process of Urbanisation, sphere of urban influence, Regional imbalances.

2.4 Economic Geography (Special Reference to Maharashtra) :

- **Economic Activities-** Farming –Crops and cropping patterns in Maharashtra.
- High Yield Varieties (HYV). Modern Techniques in Agriculture. Organic farming sustainable agriculture. Govt. policies about agriculture.
- **Fishing** – Fishing in Inland water and Arabian sea. Problems of the fisherman, modernization in fishing.
- **Minerals and Fuels** – Major minerals and fuels in Maharashtra. Reservoirs and Exploitations of minerals. Problem of mining in Maharashtra.
- **Transportation** -Types of transportation and its development in Maharashtra. Economic Development. Measures of economic development. Sustainable Development. Globalization.
- **Tourism** – Types of Tourism, Cultural Heritage (Caves, Forts and Historical Monuments)
- **Knowledge Based Economic Activities** – Electronic Industry. I.T. Parks in Maharashtra State specially in Pune city- Silicon valley of India. CTBT. Role of R and D. Institutes in Maharashtra State.

2.5 Population Geography (Special Reference to Maharashtra):

Sources of population data. Growth, Density and Distribution of the population in Maharashtra. Population Structure and characteristics. Components of population change- Fertility, Mortality and Migration. Levels and Trends of-fertility, mortality and migration in Maharashtra. Population Growth and Economic Development, Population policies.

2.6 Environmental Geography (Special Reference to Maharashtra)

Ecosystem – Components: Biotic and Abiotic. The flow of Energy, Energy Pyramid. Nutrient cycling. Food chain and Food web. Environmental degradation and conservation. Global Ecological Imbalances. Reduction in Biodiversity. Threats of biodiversity, Man-Wild Life conflicts. Depletion of forests. Global warming- Green House Effects- The Role of CO, CO₂, CH₄, CFC's , Nitrogen- oxides (NO). Acid Rains. Heat Islands in Maharashtra. Environmental Laws and Environmental Impact Assessment (EIA). Kyoto Protocol and Carbon Credits.

2.7 Geography and Aero- Space Technology :

The Term of Aero (sky) and space. GIS, GPS and Remote Sensing. The Era of Space Technology in relation to – Defence, Banking, Internet, Telecommunication. Planning in Transportation. (Railways, Roads, Navy and Air transportation.)

Health and Education.

Mission Shakti in India. Anti Sattelite Mission. Sattelites Space Assets. The Role of ISRO and DRDO in the Research and Development of space Technology. The Management of Space Garbage, Prevention of Arm Race in Space. Geo-Strategic position of India.

2.8 a. Fundamental of Remote sensing :

- Basic concept of remote sensing
- Data and information
- Remote sensing data collection
- Remote sensing advantages and limitation
- Remote sensing process
- Electro-magnetic Spectrum.
- Energy interactions with atmosphere and with earth surface features (soil, water, vegetation)
- Indian Satellites and Sensors characteristics
- Map Resolution
- Image and False color composite
- Elements of visual interpretation and digital data.
- Passive and active microwave remote sensing
- Multispectral remote sensing and its applications

b. Aerial Photographs :

- Types and uses of aerial photographs
- Types of cameras and their applications
- Error determination and spatial resolution
- Aerial photography interpretation and map scales
- Overlapping stereo photography

c. GIS and its applications :

- Introduction to Geographical Information Systems (GIS)
- Components of GIS
- Geospatial data – spatial and attribute data
- Coordinate systems
- Map Projections and types
- Raster data and models
- Vector data and models
- GIS task – input manipulations, management, query analysis and visualization
- Land use land cover change analysis
- Digital elevation model (DEM)
- Triangulated irregular network data models (TIN)
- Applications of GIS to solve the societal needs in natural resource management and disaster management

3. AGRICULTURE

3.1 : Agroecology:

- Concept of an ecosystem, structure and function
- Energy flow in ecosystem
- Types and characteristics of ecosystem
- Biodiversity, its sustainable management and conservation , conservation agriculture
- Role of an individual in conservation of natural resources
- Social issues and environment related to crop production
- Carbon credit : concept, exchange of carbon credits, carbon sequestration, importance, meaning and ways
- Environmental ethics : Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents , holocaust and their impact on agriculture, animal husbandry and fisheries, contingent crop planning.

3.2 Soils :

- Soil as a natural body, pedological and edaphological concept of soil
- Soil genesis : soil forming rocks and minerals
- Process and factors of soil formation
- Physical, chemical and biological properties of soil
- Soil profile and components of soil
- Soil as a source of plant nutrients, essential and beneficial plant nutrients and their role, forms of plant nutrients in soil
- Soil organic matter - sources, composition, properties, factors affecting SOM, its importance and influence of SOM on soil properties
- Soil organisms - macro and micro-organisms, their beneficial and harmful effects on soil and plant
- Soil pollution: sources of soil pollution, behaviour of pesticides and inorganic contaminants, prevention and mitigation of soil pollution
- Problem soils and their reclamation
- Remote sensing and GIS in diagnosis and management of problem soils
- Soil erosion, types and soil erosion control measures
- Organic farming

- Nano technology, precision farming
- 3.3 Water Management :** Hydrological cycle –
- Rainfed and dryland Agriculture
 - Water conservation techniques
 - Drought and crop mitigation
 - Runoff and water harvesting
 - Concept, objectives, principles, components of watershed management and factors affecting watershed management
 - Irrigation water quality, water pollution and effect of industrial effluents, Drainage of water logged soils,
 - Criteria for scheduling irrigation, water use efficiency and irrigation efficiencies,
 - Inter-linking of rivers,
 - Irrigation and water requirement of crops,
 - Irrigation systems and fertigation

For GS-II see next page

GENERAL STUDIES –II
INDIAN CONSTITUTION AND INDIAN POLITICS
(WITH SPECIAL REFERENCE TO MAHARASHTRA) AND LAW

Standard: Degree.

Nature of Paper: Objective Type.

Total Marks : 150

Duration : 2 Hours

Note:

- (1) **The Nature and standard of questions in the paper will be such that a well-educated person will be able to answer without any specialised study and its intention is to test candidate's general awareness of a variety of subjects.**
 - (2) **It is expected from the candidates to study the latest and recent developments and happenings pertaining to the topics/sub topics mentioned below.**
-

1. The Constitution of India:

- Making of the Constitution
- Salient Features of the Constitution
- Philosophy of the Constitution (Secular, Democratic, Socialist)
- Fundamental Rights
- Abolition of Right to Property as a FR
- Inclusion of RTE as a fundamental right
- Directive Principles of State Policy,
 - Relationship between Fundamental Rights and Directive Principles of State Policy
 - Right to work (MGNREGA),
 - Right to Information
- Fundamental Duties
- Independent Judiciary
- Amendment Procedure and Major Amendments to the Constitution
- Judicial Review and the Doctrine of Basic Features (Keshavanand Bharati, Maneka versus State of Madras, Minerva Mills case)
- Structure and Functions of Major Commissions and Boards
 - Election Commission of India
 - Union and State Public Service Commissions
 - National Women's Commission
 - National Human Rights Commission
 - National Minorities Commissions
 - National S.C. Commissions
 - National S.T. Commissions
 - River Water Dispute Settlements Board
 - Central Information Commission

2. a) Indian Federalism

- Distribution of legislative powers: Union List, State List, Concurrent List, Residuary Powers
- Article 370 (now removed), Article 371 and asymmetrical federalism
- Linguistic Re-organisation of states
- Issue of Regional imbalance and the Formation of New States
- Centre - State relations: Administrative, Executive and Financial Relations
- Inter-State relations: Inter-State Councils, Zonal Councils
- Niti Ayog and the changing nature of fiscal federalism
- Sarkaria Commission Recommendations

b) Indian Political System (Structure, Powers and Functions of Governments) Nature of Indian Federation- Union & State – Legislature, Executive & Judiciary, centre-state Relations- Administrative, Executive & financial; Relations, statutory Powers, Allocation of subject

• The Union Executive:

- President,
- Vice President
- Prime Minister and Council of Ministers
- Attorney General of India
- Comptroller and Auditor General of India

• The Union Legislature:

- Parliament
- Speaker and Deputy Speaker
- Parliamentary Committees
- Parliament's control over Executive

- **Judiciary**
 - Organisation of Judiciary: Integrated Judiciary
 - Role, Powers and Functions of the Supreme Court and High Courts, Subordinate Courts- Lokpal, Lokayukt and Lok Nyayalaya
 - Judiciary as a protector of the Constitutional Order and Fundamental Rights
 - Judicial Activism
 - Public Interest Litigation
3. **Evolution of Indian Administration:**
 - a. Pre-British Period
 - b. British Period
 - c. After Independence Period
 4. **State Government and Administration (With Special Reference to Maharashtra) :**
 - a. Formation and Reorganization of Maharashtra State
 - b. Governor, Chief Minister, Council of Ministers
 - c. State Secretariat, Chief Secretary-Functions and Role
 - d. Legislature- Legislative Assembly, Legislative Council- Powers and Function
 5. **Rural and Urban Local Government and Administration:**
Attributes of Local Government
 - **Rural Local Government and Administration**
 - a. Gram Sabha, Gram Panchayat, Panchayat Samiti and Zilla Parishad- Composition, Powers and Functions. Chief Executive Officer (CEO), Block Development Officer (BDO), and Gram Sevak- Functions and Role
 - b. 73rd Constitutional Amendment- Importance and Features
 - c. Rural Development and Panchayati Raj
 - **Urban Local Government and Administration**
 - a. Nagar Panchyat, Municipal Council, Municipal Corporation, and Cantonment Board- Composition, Powers and Functions
Chief Officer and Municipal Commissioner-Functions and Role
 - b. 74th Constitutional Amendment –Main Features
 - c. Urban Development and Urban Local Bodies
 6. **District Administration:**
 - a. Evolution and Development of District Administration in India
 - b. District Collector- Powers and Functions, Changing Role of District Collector, Sub-Divisional Officer, Tahasildar and Talathi- Functions and Role
 - c. Law and Order- Agencies of Law and Order- District Collector, District Police Superintendent and Citizens
 7. **Political Parties and Pressure Groups:**
 - Changing Nature of India’s Party system
 - National Parties & Regional Parties
 - Ideology
 - Organisation
 - Party Funding
 - Electoral performance
 - Social Bases
 - Major Interest Groups in Maharashtra
 8. **The Electoral Process**
 - Main features of Electoral Process
 - Adult Franchise
 - Single member territorial Constituencies
 - Reserved constituencies
 - Election Machinery: Election Commission of India, State Election Commissions
 - General Elections for Lok Sabha & State Assemblies
 - Elections to Local Bodies
 - Issues in conducting Free and Fair Elections
 - Electoral Reforms
 - Issue of Electoral Funding & Expenditure
 - Electronic Voting Machines
 - VVPAT
 9. **Mass Media:**
 - Role and impact of Print and Electronic Media in Policy making, formation of Public opinion and Public education.
 - Press Council of India
 - Code of conduct for Mass Media
 - Issue of Fake News, paid news
 - Portrayal of women in mass media
 - Freedom of speech and expression and limitations there-on

- Emerging Challenges of Social Media
10. **Education System:**
 - Directive Principles of State Policy and Education
 - Educational Problems of Disadvantaged Sections: Scheduled Castes, Scheduled Tribes, Muslims and Women
 - Privatization of education: issues of access to education, merit, quality and social justice
 - Contemporary Challenges in Higher Education today
 - ICT in Education: NMEICT, E-Pathshala, E-PG Pathshala, SWAYAM
 - Sarva Shiksha Abhiyan, Madhyamik Shiksha Abhiyan
 11. **Administrative Law:** Rule of law. Separation of powers, Delegated legislation, Administrative Discretion Administrative Tribunals, Principles of Natural Justice, Vigilance Commission, Lokpal & Lokayukta, Constitutional protection to public servants.
 12. **Maharashtra Land Revenue Code 1966:** Definitions, Classes & kinds of Lands, Use of Lands & procedure of change of use, Assessment of land revenue, Land Records, Provisions for appeal, Revision & Review.
 13. **Some Pertinent Laws:**
 - (1) **Environment Protection Act, 1986 :** Definitions, Object, Machinery and Measures provided therein.
 - (2) **The Right of Children to Free & Compulsory Education Act, 2009:** Definitions, Objects, Rights of Children to education, Duties of Government, Responsibilities of Schools & teachers.
 - (3) **Right to Information Act, 2005:** Definitions, Rights of Applicants, duty of Public Authority, exceptions to the information sought, Appeals, Penalties.
 - (4) **Information Technology Act - 2000 (Cyber Law):** Definitions, Authorities, Electronic governance, offences and penalties.
 - (5) **The Prevention of Corruption Act 1988:** Definitions, Object, Machinery and Measures provided therein.
 - (6) **Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act 1989:** Definitions, Object, Machinery and Measures provided therein.
 - (7) **The Maintenance and Welfare of Parents & Senior Citizens Act 2007:** Definitions, Object, Machinery and Measures provided therein
 - (8) **Protection of Civil Rights Act 1955:** Definitions, Object, Machinery and Measures provided therein.
 - 14 **Social Welfare and Social Legislation:** Constitutional provisions relating to socio-economic justice, Protection to Women under: The Constitution of India & Human Rights, The Protection of Women from Domestic Violence Act 2005, Protection to Child under Constitution and Human Rights, Concept of free legal aid & Public Interest Litigation.
 - 15 **Financial Administration:**
 - a. Budgetary Process- Preparation, Enactment and Execution of Budget
 - b. Control over Public Expenditure- Parliamentary Control, The Finance Ministry Control, Control through Committees- Public Accounts Committee (PAC), Estimate Committee and Committee on Public Undertakings
 - c. Comptroller and Auditor General of India- Functions and Role
 - 16 **Agricultural Administration and Rural Economy:**
 - a. Green Revolution
 - b. White Revolution
 - 17 **Public Services:**
 - a. All India Services, Central Services and State Services - Constitutional Position and Functions
 - b. Recruitment and Training – Types of Recruitment and Training
 - c. Training Institutes:
 - Lal Bahadur Shastri Academy of Administration
 - Sardar Vallabhbhai Patel National Police Academy
 - Yashwantrao Chavan Academy of Development Administration (YASHADA)
 - Indian Institute of Public Administration (IIPA)
 - d. Central Secretariate- Prime Minister Office, Cabinet Secretary-Power, Functions and Role
 - 18 **Constitutional and Statutory Bodies :**
 - a. Constitutional Institutions - State Election Commission and Advocate General.
 - b. Statutory Institutions- Lokpal and Lok Aayukta
 19. **Concepts, Approaches and Theories in Public Administration:**
 - a. Concepts- New Public Management, Civil Society, Decentralization and Delegation and E- Governance.
 - b. Approaches- Behavioral Approach and Systems Approach.
 - c. Theories- Bureaucratic Theory and Human Relations Theory.
 20. **Public Policy:**
 - a. Public Policy–Formulation, Implementation, Evaluation and Analysis
 - b. Public Policies and Globalization
 - c. Public Policy Process in India

For GS-III see next page

GENERAL STUDIES –III
HUMAN RESOURCE DEVELOPMENT (HRD) AND HUMAN RIGHTS :

Standard: Degree.

Total Marks : 150

Nature of Paper: Objective Type.

Duration : 2 Hours

Note:

- (1) **The Nature and standard of questions in the paper will be such that a well-educated person will be able to answer without any specialised study and its intention is to test candidate's general awareness of a variety of subjects.**
- (2) **It is expected from the candidates to study the latest and recent developments and happenings pertaining to the topics/sub topics mentioned below.**

1. HUMAN RESOURCE DEVELOPMENT:

1.1 Human Resource Development in India -

Present Dimensions of Population in India – Quantitative aspect (Size, Growth, Growth Rate, Age, Sex, Rural and Urban population, Birth Rate, Mortality Rate) Qualitative aspect (Education, Healthcare, Human Development Index, Population policy, population explosion, population projection upto 2050, Importance and need of Human Resource Planning in modern society, components and factors involved in planning of Human Resources, Nature, Types and problems of unemployment in India, Trends in employment in India, Demand estimate of skilled manpower in different sectors and areas, government's policy and schemes to reduce unemployment. Institutions engaged in development of human resource and field of education - UGC, AICTE, NCTE, RUSA, ITIs, NCVT, IMC, NCERT, NIEA, IIT, IIM)

1.2 Education: Education as a tool of HR development and social change. Education (Pre-primary to Higher Education) system in India. Problems and issues (Universalisation of education, vocationalisation of education, Quality improvement, Dropout rate etc.) Education for Girls, Socially and Economically underprivileged classes, Handicapped, Minorities, Talent Search etc. Govt. policies, Schemes and programmes for Education. Govt. and Voluntary Agencies involved in promoting, regulating and monitoring Formal, Non-formal and Adult education. E-Learning. Impact of globalisation and privatisation on Indian education. National Knowledge Commission, National Commission for Higher Education and Research, IITs, IIMs, NITs, Right to Education-2009, NEP-2019 as updated

1.3 Vocational Education: As a tool of HR development. Vocational/ Technical Education- Present status, systems and training in India particularly in Maharashtra. Govt. policies, schemes and programs – Problems, issues and efforts to overcome them. Institutes involved in promoting, regulating, accrediting vocational and Technical Education. NSDC (National Skill development Corporation)

- National Skill Development Programme
- Strategies in penetrating vocational education in rural areas
- Industry Institute Partnership (Internships and Apprenticeship)
- Sector wise employment opportunities
- Setting up one's own entrepreneurial unit
- Introducing vocational education at an early age (After Primary education Age group 14+)
- Vocational education in Service sector (Hospitality, Hospitals, Paramedics etc.)
- Vocational education for women empowerment
- Government programs related to vocational education as updated.
- vocational education- National Policy of Education-2019 (NEP 2019)

1.4 Health -

World Health Organisation (WHO) Objective, Structure, Functions and Programmes, Health policy of India, various schemes and programme, health care system in India, Vital Statistics of Health in India, problems and issues related to health care (Malnutrition, Maternal Mortality Ratio, etc.) Janani-Bal Suraksha Yojana, National Rural Health Mission, Pradhanmantri Swasthya Suraksha Yojana (PMSSY)

1.5 Rural Development -

Empowerment of Panchayat Raj System, role of Gram-panchayat in rural development, land reforms and development, Schemes and programmes of agriculture and farmer welfare, role of cooperative institutes in rural development, financial institutes involved in rural development (Self Help Group-(SHG), Micro-finance) rural employment schemes, rural water supply programme and sanitation programme, infrastructure development e.g. energy, transportation, housing and communication in rural area, national rural employment guarantee schemes (NREGS), Mission Antodaya, Gram Swaraj Abhiyan

2. HUMAN RIGHTS:

2.1 Universal Declaration of Human Rights (UDHR 1948)- International human rights standards, its reflection in the Indian Constitution, mechanism to enforce and protect Human Rights in India. Human Rights Movement in India. Problems related to human rights deprivations such as poverty, illiteracy, unemployment, social-cultural-religious practices, violence, corruption, terrorism, exploitation of labour, custodial crimes etc. Need for training and practice of human rights and human dignity in a democratic set up. Globalisation and its impact on different sections of Indian Society. Human Development Index, Infant Mortality Rate, Sex Ratio.

2.2 Child Development :

Problems and issues (Infant mortality, malnutrition, child labour, children education etc.) government policies,

welfare schemes and programmes –Role of international agencies, voluntary organizations, NGOs, community resources. Child labour (Prohibition and Regulation) Act, Protection of Children from Sexual Offence Act, Integrated Child Development Services (ICDS)

2.3 Women Development :

Problems and issues of Women (Gender inequality, violence against women, Sex ratio, Female infanticide, Female foeticide, etc.) Government policy, schemes and programmes for women development, Welfare and Empowerment, Role of international agencies, voluntary organizations and community resources. Accredited Social Health Activist (ASHA),

2.4 Youth development :

Problems and issues (unemployment, unrest, drug addiction etc), Government policy - development schemes and programme, Role of international agencies, voluntary organization and community resources. National Policy on Skill Development and Entrepreneurship, National Youth Policy.

2.5 Tribal development :

Problems and issues (Malnutrition, Integration and development etc) Tribal welfare- government policy, welfare schemes and programmes, Role of international agencies, voluntary organizations and community resources. Forest Rights Act .

2.6 Development for Socially deprived classes - problems and issues (inequality in opportunity etc.) - Government Policy, welfare schemes and development programs - Role of international agencies, Voluntary Organisations and Resource mobilisation and Community participation.

2.7 Welfare for aged People- problems and issues - Government Policy - welfare schemes and programs - Role of international agencies, Voluntary Organisations and Community participation for their development. Utilisation of their services in developmental activities.

2.8 Labour Welfare - problems and issues (working conditions, wages, health and problems related to organised and unorganised sectors) - Government Policy, welfare schemes and programs - Role of international agencies, community and Voluntary Organisations.

2.9 Welfare of disabled persons - problems and issues (inequality in educational and employment opportunity etc.) - Government Policy, welfare schemes and programs - Role of international agencies, Voluntary Organisations in employment and rehabilitation.

2.10 People's Rehabilitations - (People affected by Development projects and Natural Calamities.) – Strategy and programs – Legal Provisions – Consideration of different aspects like economic, cultural, social, psychological etc.

2.11 International and Regional Organisations: United Nations and its specialised agencies – UNCTAD, UNDP, ICJ, ILO, UNICEF, UNESCO, UNCHR/ UNHRC, APEC, ASEAN, OPEC, OAU, SAARC, NAM, Commonwealth of Nations, European Union, SAFTA, NAFTA, BRICS, RCEP

2.12 Consumer Protection Act 2019: Definitions, Objects, Salient features of the existing act- Rights of consumers, Consumer disputes and redressal machinery, Different kinds of Forums- Jurisdiction, Powers, functions, procedures and Appeals.

2.13 Values, Ethics and Norms

Fostering of social norms, Socialisation, values and ethics through formal and informal agencies such as Family, Religion, Education, Media etc.

For GS-IV see next page

GENERAL STUDIES –IV
ECONOMY AND PLANNING, ECONOMICS OF DEVELOPMENT AND AGRICULTURE, SCIENCE AND TECHNOLOGY DEVELOPMENT.

Standard: Degree.

Nature of Paper: Objective Type.

Total Marks : 150

Duration : 2 Hours

Note:

- (1) **The Nature and standard of questions in the paper will be such that a well-educated person will be able to answer without any specialised study and its intention is to test candidate's general awareness of a variety of subjects.**
- (2) **It is expected from the candidates to study the latest and recent developments and happenings pertaining to the topics/sub topics mentioned below.**

1. MACRO-ECONOMICS

- 1.1 Macro Economics:-** National Income concepts- GDP,GNP, GVA, At factor cost, At market price, GDP deflator, Methods of national income accounting, National Income Accounting in India, National Income accounting problems in India, Business cycles, Employment concepts- measures of unemployment.
- 1.2 Growth & Development:**
Indicators of development- Social and Economic Indicators of Development, Inclusive development, sustainable development- development and environment– Green GDP, SDGs.
Factors of economic development: natural resource, infrastructure, technology, capital, population- human capital- theory of demographic transition, Human development index, Gender Gap, gender empowerment measures, Education, health & Nutrition, Governance.
Measurement and estimate of poverty– Poverty line, human poverty index.
Relation between income, poverty and employment- issues of distributional and social justice, social security initiatives in India.
- 1.3 Public Finance:** Role of public finance in market economy (Market failure & Development oriented)- Criteria for public investment. Merit goods and public goods, Sources of revenue- incidence and effect, Types of public expenditure, budget deficits, Fiscal Deficits - Concepts, Control of Deficits, Public debt, Performance Based Budgeting and Zero Based Budgeting, Gender based budgeting.
- 1.4 Money:** Functions of money- base money– high-powered money- quantity theory of money - money multiplier. Monetary and non-monetary theories of inflation - control of inflation: monetary, fiscal and direct measures
- 1.5 International Trade and International Capital:**
International trade as an engine of growth- theories of international trade- Classical & modern theories, Role of foreign capital and technology in growth – multi-national corporations .
International Financing Agencies– IMF, World Bank, IDA & ADB
Regional Trade Agreements – SAARC, ASEAN.
WTO and International Trade & Investments, TRIPs & TRIMs.

2 INDIAN ECONOMY

- 2.1 Indian Economy- Overview:**
Challenges in Indian Economy- Poverty, Unemployment and Regional Imbalances- Eradication measures.
Planning- Types & rationale, Planning Commission, NITI Aayog.
Economic reforms: Background, Liberalisation, Privatisation and Globalisation – (concept, meaning, scope and limitations). Economic Reforms at Central and State Level.
- 2.2 Indian Agriculture & Rural Development:**
Role of agriculture in economic development- interrelationship between agriculture, industry and services sectors, Regional disparities in agricultural growth in India
Types of farming- contract farming - precision farming – corporate farming – organic farming.
Agricultural productivity- Green Revolution and technological change, GM technology, agricultural pricing, Agricultural marketing, agricultural credit & NABARD
Irrigation and water management
Live-stock resource and their productivity–White Revolution, fisheries, poultry, forestry, horticulture and floriculture development in India and Maharashtra.
Farm subsidies- Support prices & institutional measures, Public Distribution System- food security, Implications of GATT agreement in agricultural marketing.
Strategies of rural development, rural infrastructure (social and economic)
- 2.3 Co-operation:** Concept, Meaning, Objectives, new principles of co-operation. Growth and diversification of co-operative movement in India & Maharashtra, Self Help Groups.
State policy and Co-operative sector- Legislation, Supervision, Audit and Aid.
Problems of Co-operatives in Maharashtra. Prospects of Cooperatives in the era of global competition.
- 2.4 Monetary & Financial Sector:** Indian financial system- structure, Role of RBI, Monetary & Credit Policy, Transmission mechanism, Inflation targeting in India, Growth in banking & non- banking financial institutions in India, Money market- developments post-1991, Capital market- developments post-1991, Role of SEBI, Financial sector reforms

2.5 Public Finance and Financial Institutions: Sources of revenue (Central & State), Public Expenditure (Centre and States)- Growth and causes. Public Expenditure Reform - Review of Tax Reforms- VAT, GST. Central & State deficits & deficit financing, Public debt- Growth, Composition and Burden. Problem of States' Indebtedness to Centre.

Finance Commissions in India, Fiscal Reforms in India

2.6 Industry and Services Sector:

Importance and role of industries in economic and social development, Growth Pattern, Structure of Large-scale Industries in India with special reference to Maharashtra.

MSMEs- Growth, problems, prospects & policies, SEZs, SPVs.

Industrial sickness- measures, Industrial exit policy

Industrial policies- pre & post-1991, India & Ease of doing business

Composition and growth of services sector in India.

Indian labour- issues, measures & reforms, Social security measures

2.7 Infrastructure Development:

Types of infrastructure, Growth of infrastructure such as Energy, Water supply and sanitation, Housing, Transport (Road, Ports etc.), Communications (Post and Telegraphs, Telecommunication), Network of Radio, TV, Internet.

Problems related to Infrastructure in India.

Infrastructure financing- challenges & policy alternatives- Public-Private Sector Partnership (PPP). FDI and Infrastructure Development, Privatisation of infrastructure development. Centre and State Government Policies for Infrastructure Development- SPVs.,

Affordable housing, slum rehabilitation

2.8 International Trade & Capital:

Growth, Composition and Direction of India's Foreign Trade. Foreign trade policy – Export Promotion initiatives.

Foreign Capital flows- Composition and Growth- FPI, FDI. E-Commerce, external commercial borrowings. Role of Multinationals.

International Credit Rating institutions & India.

Exchange rate management in India

2.9 Economy of Maharashtra: Salient features of agriculture, industry and service sectors, GoM policies for agriculture, industry and service sectors, drought management in Maharashtra - FDI in Maharashtra, Maharashtra in comparison with rest of India.

2.10 Agriculture:

1. Importance of Agriculture in National Economy – Causes of low productivity – Contribution of Agriculture to the National income and employment. Basic Agricultural inputs, farm size and productivity, Govt. Policies towards doubling farmers income. Other Government policies, schemes and programmes for agriculture production and developments such as land reforms and land utilisation, soil and water conservation, rainfed farming, Irrigation and its methods, Mechanization of Agriculture. General price index, inflation and deflation. GST and agricultural taxation. Present Status and prospects of international trade agreements in Agriculture (WTO etc.) Different Crop Insurance Schemes in India, Role of ICAR, MCAER.

2. Problem of rural indebtedness and Agriculture credit-

- Need, Importance and role of credit in Indian agriculture. Classification, Sources and agencies of agriculture finances like commercial and co-operative banks, NABARD, RRB and others. Loan repayment plans. Kissan Credit Card (KCC) scheme.
- Agriculture pricing – Components and factors of agriculture prices, Government support prices of various agriculture produces. Commission for agriculture cost and prices. (CACP), Government agencies helping in purchase, marketing and storage of agricultural commodities (NAFED, NCDC etc.)
- Agriculture marketing, market and market structure , market integration, types of risk in agricultural marketing, Role of government and its institution in agricultural marketing (APMC, NAFED, NCDC, E Nam etc.)

2.11 Food and Nutrition: Trends in food production and consumption in India, Self-sufficiency in food, Problem of food security, Problems and issues of food spoilage, storage, procurement, distribution, import and export of food. Common nutritional problems in India. Government Policies, schemes, programs such as PDS, Food for work, Mid-day Meal Scheme and other nutritional programs. Green revolution and its impact on food self-sufficiency. Oil for food programme, Nutritional security. National food security Act 2013.

3. SCIENCE AND TECHNOLOGY DEVELOPMENTS

3.1 Energy Science:

Conventional energy sources:- Fossil Fuels and combustion, Thermal, Hydropower (Tidal Power and wave power). Essential Fluid mechanics for energy conversion.

Non Conventional energy sources : Introduction , Principle and process of Solar, Wind, tidal Geothermal, Biomass waste, Bio-gas, Petro plants and other renewal energy sources like biproduct of cane sugar, crops etc. Solar gadgets like solar cooker, water heater, solar dryer etc.

Energy crises in India, Government Policies & Programs for power generation (MNRE, MEDA, IREDA), Thermal and hydroelectric power program, Power distribution and National grid, Off-Grid and ON-Grid-Solar

- PV system. Institutions working in Energy security research and development.
- 3.2 Computer and Information Technology-**
Introduction - Computer hardware, Software, Accessories
Communication- Networking-wired/wireless, Internet, web technology, static/ dynamic web pages, web hosting.
Latest Tools and Technologies- Cloud computing, social networking, blockchain. Internet of Things (IoT), Virtual Reality/ Augmented Reality (VR/AR), messaging, search engine, digital financial services, Artificial Intelligence/ Machine Learning (AI/ML)
Government Initiative - Media Lab Asia, Digital India etc.
Security- Network and Information security, forensic, cyber law.
- 3.3 Space Science and Technology :** Indian space policies and programmes, space missions, ISRO, Introduction , working principle, and applications of Indian Artificial satellites viz. Television, broadcasting, Telecommunication, Weather forecasting, GPS, disaster forecasting, Education.
Satellite launch vehicles, Space debris.
Remote sensing and its applications.- GIS and its applications like engineering and planning, Facilities managements, environmental and natural resources managements, street network, land information system.
- 3.4 BIO- TECHNOLOGY**
- 3.4.1 Introduction**- Nature, Scope, Application of Bio-technology and Nano-technology, Gene cloning, DNA technology.
- 3.4.2 Bio-technology in Agriculture**- Introduction, History, Biopesticides, Biofertilizers, Biofuels, Environmental Cleanup, Bioremediation, Biodiversity conservation.
- 3.4.3 Plant Tissue Culture**- Modern Techniques, Applications, Secondary Metabolites.
- 3.4.4 Immunology**- Immunodiagnostic Techniques, Animal Cell Technology.
- 3.4.5 Application of DNA Technology in Human and Animals**- Transgenic animals. Cloning and Stem Cell Research, Human DNA Profiling, Methods and Principles of Personal Identification, Applied Human Genetics, Paternity Diagnosis, Genetic Counselling, DNA Technology in Disease Medicine, Serogenetics, Cytogenetics, Detection of Cancer and Microbial Infection.
- 3.4.6 Vaccines**- Conventional and Modern Vaccines.
- 3.4.7 Fermentation**- Industrially important fermentation products
- 3.4.8 Bioethics**- Bioethics in Health care, Artificial reproductive Technology, Prenatal diagnosis, Genetics screening, Gene therapy, Transplantation Technology.
- 3.4.9 Biosafety**- Biosecurity, Biosafety levels for specific organisms, DBT Guidelines.
- 3.4.10 Patent**- Introduction of IPR, Patenting, Patent Act- Process and Product Patent.
- 3.5 India's Nuclear Programme :** Introduction, necessity, salient features, Recent Nuclear Policies, Nuclear Tests, Nuclear Thermal power generation- principle, construction, working and environment. Nuclear waste, nuclear accidents etc.
Nuclear power plants in India- Use of nuclear technology like consumer products, food and agriculture, medicines etc.
- 3.6 Disaster Management**- (Special reference to Maharashtra) Definitions, Environmental Stress, Classification of Disaster.
Natural Disaster- Causes, Effects and Mitigation measures. Earthquakes, Tsunamis, Floods, Land Slides, Draughts, Fires, Lightning etc.
Man-made Disaster- Causes, effects and mitigation measures- Desertification, soil erosion. Forest, Farm and Building fires.
Terrorism and Activists- Bomb blasts- Attacks in the urban centres and dense populated areas.
Accidents- Bridge collapse. Structural Audit of various Bridges, Buildings and Irrigation Dams in Maharashtra. Need of establishment of various Authorities for the Structural Audits.
Identification and Distribution of Hazards. Zonation and Risk Analysis. Awareness of Hazards. Pre-hazard conditions. Rescue operations. Reclamation.
