

**GROUP-I SERVICES**

**SUBJECT: GENERAL STUDIES AND MENTAL ABLITY**

**(SCREENING TEST –OBJECTIVE TYPE)**

S.L. No	Existing Syllabus	Proposed Syllabus	Suggestion for		Substantiation on your Suggestions Additions / Deletions
			Additions	Deletions	
	1. Events of National and International importance. 2. Current affairs - International, National and Regional. 3 Contemporary developments in science & Technology and Information Technology. 4. Geography -World, National and regional. 5. History of India Ancient, Medieval, Modern –socio-cultural, Economic and political affairs with special emphasis on Indian National Movement. 6. Indian polity and Governance; Constitutional issues, pubic policy formulation and implementation, Governance Reforms and e-governance initiatives.	1. Events of National and International importance. 2. Current affairs - International, National and Regional. 3 Contemporary developments in science & Technology and Information Technology. 4**. Geography -World, National and Andhra Pradesh. 5. History of India Ancient, Medieval, Modern –socio-cultural, Economic and political affairs with special emphasis on Indian National Movement. 6. Indian polity and Governance; Constitutional issues, pubic policy formulation and implementation, Governance Reforms and e-governance initiatives.			

	<p>7. Economic Reforms in India: Planning and post –liberalization, growth and development, poverty, inclusion, exclusion, sustainable development, social sector reforms.</p> <p>8. Environmental degradation and challenges.</p> <p>9. Disaster Management; Vulnerability profile, prevention and mitigation strategies.</p> <p>10. Logical reasoning, analytical ability and data interpretation.</p>	<p>7**. Economic Growth and Development – Poverty-Unemployment –Planning India-Economic reforms- Post-Liberalization- Sustainable development- Social sector reforms.</p> <p>8. Environmental degradation and challenges.</p> <p>9**. Disaster Management; Vulnerability profile, prevention and mitigation strategies Application of remote sensing and GIS in the assessment of Disaster.</p> <p>10. Logical reasoning, analytical abilityand data interpretation.</p>			
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**GROUP-I**  
**SUBJECT: GENERAL ENGLISH**  
**(X CLASS STANDARD, QUALIFYING FOR INTERVIEW)**

S.L. No	Existing Syllabus	Proposed Syllabus	Suggestion for		Substantiation on your Suggestions Additions / Deletions
			Additions	Deletions	
01	<b><u>GENERAL ENGLISH</u></b> 1. Comprehension 2. Precis-writing 3. Re-arrangement of sentences 4. Correction of sentences 5. Synonyms 6. Antonyms 7. Filling in the blanks 8. Correction of spellings 9. Vocabulary and usage 10. Idioms and phrases 11. Verb tenses 12. Prepositions 13. Active voice and Passive voice 14. Parts of speech	<b><u>GENERAL ENGLISH</u></b> <b><u>SECTION-I</u></b> <b>Reading Comprehension:</b> 1. Reading Comprehension Passage- (followed by Questions) a) Descriptive Passage b) Literary Passage <b><u>SECTION-II</u></b> <b>Functional Grammar:</b> 1. Recognition of Parts of Speech 2. Verb forms-Usage of Tenses 3. Conditional Sentences 4. Identifying and Inter change of Sentences (Simple, Complex and Compound)( Active and Passive voice) 5. Use of Prepositions and Prepositional Phrases 6. Fill in the blanks with Suitable Words 7. Correction of Sentences			

		<p><b><u>SECTION-III</u></b>  <b>Vocabulary Usage</b></p> <ol style="list-style-type: none"> <li>1. Use the given Idioms and Phrases in your own Sentences</li> <li>2. One Word Substitutes –Recognition and Usage</li> <li>3. Synonyms - Recognition and Usage</li> <li>4. Antonyms- Recognition and Usage</li> <li>5. Re-arrangement of Sentences</li> <li>6. Expansion of Proverb/Sayings</li> </ol> <p><b><u>SECTION-IV</u></b>  <b>Composition:</b></p> <ol style="list-style-type: none"> <li>1. Write a Paragraph using the given Words /Phrases</li> <li>2. Dialogue Writing</li> <li>3. Essay Writing on Topics of Social relevance</li> <li>4. Description of a given Picture/Symbols</li> <li>5. Letter Writing (Types of Letters)</li> <li>6. Non- Verbal Communication (Soft Skills and Body Language)</li> </ol>			
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**GROUP-I SERVICES MAIN EXAMINATION**  
**SUBJECT: PAPER-I**  
**GENERAL ESSAY**

S.L. No	Existing Syllabus	Proposed Syllabus	Suggestion for		Substantiation on your Suggestions Additions / Deletions
			Additions	Deletions	
01	<p style="text-align: center;"><b><u>GENERAL ESSAY</u></b></p> <p><b>Candidate should write three Essays one from each section compulsorily. Each section contains three topics. Each Essay carries 50 marks.</b></p> <p>SECTION-I - Crisis management, Social problems, Analysis and solutions.</p> <p>SECTION-II - Current events of national and international importance.</p> <p>SECTION -III - Current events relating to State of Andhra Pradesh.</p>	<p style="text-align: center;"><b><u>GENERAL ESSAY</u></b></p> <p><b>Candidate should write three Essays one from each section compulsorily. Each section contains three topics. Each Essay carries 50 marks.</b></p> <p>SECTION-I - Crisis management, Social, Economic and Health Problems, Analysis and solutions.</p> <p>SECTION-II - Current events of national and international importance.</p> <p>SECTION – III - Current events relating to State of Andhra Pradesh.</p>			

**GROUP-I SERVICES MAIN EXAMINATION**  
**SUBJECT: PAPER-II**

S.L. No	Existing Syllabus	Proposed Syllabus	Suggestion for		Substantiation on your Suggestions Additions / Deletions
			Additions	Deletions	
01	<p style="text-align: center;"><b><u>SECTION-I</u></b></p> <p><b><u>HISTORY AND CULTURAL HERITAGE OF INDIA WITH EMPHASISON 20<sup>TH</sup> CENTURY HISTORY OF INDIA</u></b></p> <p>1) Indus Civilization – Vedic Civilization – Distinction between Indus Civilization and Vedic Civilization – Evolution of Varna, Jathi/caste system – Religious condition – Emergence of Religious Movements (Jainism, Buddhism and other sects) – Rise of Magadha Imperialism – Rise of Mahayana and Development of Art (Gandhara, Mathura and other Schools).</p> <p>2) Advent of Islam and its impact – Influence of Islam on Indian Culture – Religious Movements – Nature and significance of Bhakti Movements – Growth of vernacular languages, literature,</p>	<p style="text-align: center;"><b><u>SECTION-I</u></b></p> <p><b><u>HISTORY AND CULTURAL HERITAGE OF INDIA WITH EMPHASIS ON 20<sup>TH</sup> CENTURY</u></b></p> <p>1) Pre-Historic Cultures in India, Indus Civilization – Vedic Civilization – Distinction between Indus Civilization and Vedic Civilization – Evolution of Varna, Jati /caste system – Religious condition in 6<sup>th</sup> century BCE – Emergence of new Religious Movements- Jainism, Buddhism - sects–Rise of Magadha Imperialism- Ashoka’s Policy of Dhamma, Influx of Foreigners- Society, Economy, – Development of Art (Gandhara, Mathura and other Schools), Gupta empire - Myth of Golden age.</p> <p>2) Delhi sultanate- Advent of Islam and its impact – Influence of Islam on Indian Culture – Religious Movements – Nature</p>			

<p>fine arts, architecture, monuments, Indo-Persian art and architecture - Vijayanagara empire and their contribution to art, literature and culture – socio-economic conditions, administration, fall of Vijayanagar empire – the Great Moghals and their contribution to Indian Fine Art, Architecture and Fine Arts – Rise of Shivaji.</p> <p>3) Stages of colonialism – changes in administrative structure and politics – factors leading for the British supremacy, assistance of Indian Powers and the causes of failures – Civil rebellions – Revolt of 1857 and its impact – Rise of nationalist consciousness and factors for the growth of Indian Nationalism and Freedom Struggle : Three Phases :1885-1905, 1905-1920, 1920-47 and significance of Gandhian Era.</p> <p>4) Rise and growth of Socio-Religious-cultural – anti-caste, Dalit and non-Brahmin, Justice/self-respect movements in modern India – Social reform organisations and role of intellectuals – Raja Ram Mohan Roy - Dayanand Saraswathi - Jyotiba Phule - Narayana Guru - Mahathma Gandhi - Ambedkar and others.</p> <p>5) Nationalist Literature – growth of</p>	<p>and significance of Bhakti Movements – Growth of Vernacular Languages, Literature, Fine arts, Monuments, Indo-Persian Art and Architecture .</p> <p>3) Vijayanagara empire- Administration- Socio- economic conditions and their Contribution to Literature, Culture, Art and Architecture– The Mughals- Administration, Culture efflorescence and their contribution to Art, Architecture and Fine Arts – Rise of Shivaji- Maratha movement.</p> <p>4) Stages of Colonialism – Changes in Administrative Structure and Politics – Factors leading for the British supremacy, assistance of Indian Powers and the causes of failures – Civil rebellions – Revolt of 1857 and its impact, western impact – Christian missionaries, Press, Education its impact- Cultural changes, Rise of Nationalist consciousness and factors for the growth of Indian Nationalism and Freedom Struggle: Three Phases: 1885-1905, 1905-1920, 1920-47 and significance of Gandhian Era.</p> <p>5) Rise and growth of Socio-Religious-Cultural – non-Brahmin, Justice Party/self-Respect Movements in modern India – Social reform Movements and Role of</p>			
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<p>peasant and labour movements – role of leftist parties in anti-feudal and anti-colonial struggles-rise and growth of Women’s movements – origin and growth of communalism – workers and peasant movements –freedom and partition of India; important historical events after independence.</p> <p style="text-align: center;"><b><u>SECTION-II</u></b></p> <p style="text-align: center;"><b><u>SOCIAL AND CULTURAL HISTORY OF ANDHRA PRADESH</u></b></p> <p>1) The Satavahanas and their contribution – social structure – religious conditions – growth of literature and painting – Ikshvakus and their cultural contribution – Growth of Buddhism in Andhra Pradesh – The Eastern Chalukyas of Vengi and their importance – socio-cultural contribution – growth of Telugu language &amp; Literature – education and learning – Religious Sects – growth of art and architecture.</p> <p>2) Socio- Cultural and Religious conditions in Andhra Desha between 1000 AD–1565 AD Growth of Telugu Language</p>	<p>intellectuals – Raja Ram Mohan Roy - Dayanand Saraswathi - Jyotiba Phule - Narayana Guru - Mahathma Gandhi - Ambedkar and others.</p> <p>6) Nationalist Literature – Growth of Peasant and Labour movements – Role of Leftist Parties in Anti-feudal and Anti-colonial struggles-Rise and Growth of Women’s movements – Origin and Growth of Communalism –Freedom and Partition of India; Important historical events after Independence.</p> <p style="text-align: center;"><b><u>SECTION-II</u></b></p> <p style="text-align: center;"><b><u>SOCIAL AND CULTURAL HISTORY OF ANDHRA PRADESH</u></b></p> <p>1) The Satavahanas- Socio, Economic and Religious conditions and their contribution to Literature, Art &amp; Architecture, Ikshvakus and their Cultural contribution- Buddhism in Andhra–Salankayans, Vishnukundies- Revival of Brahmanism, The Eastern Chalukyas of Vengi and their importance – Socio-Cultural contribution– Religious Sects- Telugu language, Literature and learning– Art and Architecture.</p> <p>2) Socio- Cultural and Religious conditions in Andhradesa between 1000 to</p>			
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	<p>and Literature – Nannaya- Molla etc., fine arts and architecture – Monuments – Significance – Contribution of Qutubshahis to Telugu language and Literature –Art- Architecture- Monuments.</p> <p><b>3)</b> Modern Andhra - Socio-cultural awakening in Andhra – Brahma Samaj, Arya Samaj, Theosophical society – Adi-Andhra, Movements and role of Veereshalingam and others – Non-Brahmin, Adi- Andhra /Dalit and Justice/self – respect movements – Gurram Joshuva – Boyi Bheemanna – Sri Sri and others – Growth of Nationalist Movement in Andhra and the Andhra Leaders during the Freedom Struggle – Role of socialists – communists – anti-zamindari-kisan movements.</p> <p><b>4)</b> Asafjahi Dynasty – socio-cultural awakening in Telangana -Adi-Hindu Movement – Nizam Rashtra Janasangham – Andhra Mahasabha – Andhra Saaraswata Parishat – The role of Hyderabad State Congress and Vandemataram Movement.</p> <p><b>5)</b> Telangana People’s Armed Struggle – Ittehadul-Muslimeen – Razakars-anti-Nizam Struggles and end of Nizam’s Rule and integration of Hyderabad State in Indian</p>	<p>1565 A.D - Growth of Telugu Language and Literature( Kavitraya- Asthadiggajas)- Fine-Arts, Art &amp; Architecture– Monuments– Significance, Contribution of Qutubshahis to Andhra History and Culture.</p> <p><b>3)</b> European Trade establishments in Andhra- Andhra under the Company Administration-Socio-Cultural awakening - Theosophical society and role of Veeresalingam and others– Non-Brahmin, and Justice party/self – Respect movements – Gurram Jashuva – Boyi Bheemanna – Sri Sri and others – Growth of Nationalist Movement in Andhra and the Andhra Leaders during the Freedom Struggle– Role of Socialists– Communists–Anti-Zamindari-kisan movements.</p> <p><b>4)</b> Asafjahi dynasty – Socio- Cultural awakening in Nizam State – Nizam Rashtra Janasangham – Nizam Andhra Mahasabha- Origin and Growth of Andhra Movement- Andhra Mahasabhas- Prominent Andhra Leaders- Potti Sreeramulu- Formation of Andhra State- 1953. Emergence of Andhra Pradesh 1956-Andhra Pradesh from 1956 to 2014 –Development, Partition movements- Causes- Bifurcation- 02<sup>nd</sup> June 2014 impact.</p>			
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	<p>Union – Formation of Andhra Pradesh.</p> <p style="text-align: center;"><b><u>SECTION-III</u></b></p> <p><b><u>GENERAL OVERVIEW OF THE INDIAN CONSTITUTION</u></b></p> <p>1) Nature of the Constitution – constitutional developments – salient features – Preamble – Fundamental Rights, Directive Principles of State Policy and their relationship - Fundamental Duties, Distinctive features of Indian Federation.</p> <p>2) Distribution of Legislative Powers between the Union and the State; Administrative and Financial relations between the Union and the States – Powers and the functions of Constitutional Bodies.</p> <p>3) Unicameral and Bicameral Legislatures – Functions and crises of accountability, decline of legislature - Delegated Legislation – Legislative and Judicial control over the delegated legislation – Judicial review of administrative action.</p> <p>4) Amendment of the Constitution – Basic Structure Theory – Emergency Provisions and De-centralisation – Community development experiment – 3 tier model of Panchayat Raj – 73<sup>rd</sup> and 74<sup>th</sup></p>	<p style="text-align: center;"><b><u>SECTION-III</u></b></p> <p><b><u>AN OVERVIEW OF THE INDIAN CONSTITUTION</u></b></p> <p>1) The Indian Constitution- Making of the Constitution- Legacies of British Rule- Constituent Assembly- Constitutional Development – Salient features of the Indian Constitution- Preamble- Fundamental Rights- Directive Principles of State Policy and their relationship- Fundamental Duties- Impact of Socio-Economic factors on Indian Polity.</p> <p>2) Structure and functions of Union Government- Legislative, Executive, Judiciary and their relationship- State Governments- Legislative, Executive and Judiciary and their relationship- Types of Legislatures- Unicameral, Bicameral, Executive– Parliamentary, Presidential, Judiciary- Judicial Review and Judicial Activism.</p> <p>3) Centre- State relations between Indian Union and States- Administrative, Legislative and Financial- Need for Reforms- Recommendations of Rajmannar, Sarkaria, M.M. Punchchi and Sri Krishna Commissions- Role of NITI Aayog- Is India</p>			
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	<p>amendments and their implementation.</p> <p>Welfare Mechanism in India: Provisions for scheduled castes, Tribes and Minorities; Reservations for SC, ST and Backward classes; Prevention of SC and ST Atrocities Act; National and State SC and ST Commission; Women's Commission; National and State Minorities Commission and Human Rights Commission.</p>	<p>a Federal or Unitary System?- Powers and Functions of Constitutional Bodies- UPSC, State Public Service Commissions, CAG.</p> <p>4) Amendment Process to the Constitution- Centralization Vs Decentralization- Constitutional Review Commission, Community Development Programmes- Grass root Democracies- Local Governments- Rural and Urban- 73<sup>rd</sup> and 74<sup>th</sup> Constitutional Amendment Acts and their Implementation.</p> <p>5) Party Systems- National, Regional- Types of Party Systems- One Party, Bi-Party, Multi-Party- Regionalism and Sub-Regionalism – Demand for New States- Threats to National Integration- Elections- Election Process- Role of Election Commission- Need for Reforms- Voting Behaviour.</p> <p>6) Social Movements and Welfare Mechanisms- Agrarian, Civil Liberties, Women, Tribals, Dalits and Environmental- Need for Reforms for SCs, STs and BCs- Prevention of SC's and ST's Atrocities Act- National and States SC's ST's and BC's Commissions- Women Commission- Minorities Commissions- Human Rights Commission- RTI- Lokpal and Lok Ayukt.</p>			
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**GROUP-I SERVICES MAIN EXAMINATION**  
**SUBJECT: PAPER-III**

S.L. No	Existing Syllabus	Proposed Syllabus	Suggestion for		Substantiation on your Suggestions Additions / Deletions
			Additions	Deletions	
	<p style="text-align: center;"><b><u>SECTION-I</u></b></p> <p><b><u>PLANNING IN INDIA &amp; INDIAN ECONOMY</u></b></p> <p>1) National and per capita income and human development - Sectoral changes in the Indian Economy (GDP and work force).</p> <p>2) Indian Planning – Objectives, priorities, specific aims of the recent 5 year plan-- experience and problems. Changes in the role of public-Private Sectors and their shares in the total plan outlay before and after economic reforms.</p> <p>3) Poverty and unemployment problems- magnitude and measures initiated to ameliorate them.</p> <p>4) Monetary policy – Structure of Indian Banking and non-banking</p>	<p style="text-align: center;"><b><u>SECTION – I</u></b></p> <p><b><u>PLANNING IN INDIA &amp; INDIAN ECONOMY</u></b></p> <p>1) National and Per Capita Income of India – Trends; Sectoral Contribution; Income Inequalities; Human Development – Indicators – Importance and Measurement.</p> <p>2) Indian Economic Planning – Characteristics – Types – Objectives – Achievements and Failures – Vision and Strategy for the Twelfth Plan– Economic reforms and liberalization – Origin of Economic Crisis – Role of Public and Private Sectors.</p> <p>3) Poverty and Unemployment in India-Concepts-Magnitude-Measurement – Causes; Measures for Irradiation of Poverty; Unemployment – Nature –</p>			

<p>financial institutions and reforms in them since the 1990s—regulation of credit by RBI.</p> <p>5) Pattern of revenue, expenditure and public debt and effects on the economy.</p> <p style="text-align: center;"><b><u>SECTION-II</u></b></p> <p style="text-align: center;"><b><u>LAND REFORMS &amp; SOCIAL CHANGES IN A.P. AFTER INDEPENDENCE</u></b></p> <p>1) Historical background of land reforms and the change in laws from time to time – Intermediaries abolition, tenancy reforms, ceilings on holdings and land issues in A.P.</p> <p>2) Structure of the Andhra Pradesh economy - its sectoral and regional distribution and the extent of poverty. Agricultural inputs and</p>	<p>Types – Causes – Government Policy for Solving Unemployment – MGNREGS; Income inequalities – causes-measurement- Remedial Measures.</p> <p>4) Monetary Policy – Objectives - Functions of Reserve Bank of India (RBI) – Control of Credit – Structure of Indian Banking – Financial Sector Reforms.</p> <p>5) Trends in Revenue and Expenditures of the Central and State Governments – India’s Public Debt – Analysis of the Union Budget.</p> <p style="text-align: center;"><b><u>SECTION – II</u></b></p> <p style="text-align: center;"><b><u>LAND REFORMS &amp; SOCIAL CHANGES IN ANDHRA PRADESH AFTER INDEPENDANCE</u></b></p> <p>1) Genesis of Land Reforms – Abolition of Intermediaries – Tenancy Reforms – Land ceiling in Andhra Pradesh.</p> <p>2) Structure of the Andhra Pradesh Economy – Sectoral and Regional Analysis – The Extent of Poverty – Agricultural Inputs and Technology.</p> <p>3) Demographic Features and Social Backwardness – Literacy and</p>			
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<p>technology.</p> <p>3) Demographic features and social backwardness, literacy and occupation structure; changes in the sectoral distribution of income and employment. Socio-political and economic empowerment of women.</p> <p>4) State finances and budgetary policy – tax structure, sharing central taxes, expenditure pattern in revenue and capital account as well as plan and non-plan accounts. Public debt – composition - internal and external debt including World Bank loans.</p> <p>5) Five year plans of AP – Outlays, financing public sector plan and resource allocation pattern in the recent 5 year plan.</p> <p style="text-align: center;"><b><u>SECTION –III</u></b></p> <p style="text-align: center;"><b><u>ANDHRA PRADESH’S ECONOMY, PRESENT STATUS, ITS STRENGTHS AND WEAKNESSES</u></b></p> <p>1) Growth and structure of industries in AP; Factories, small and tiny sectors, their comparison, growth,</p>	<p>Occupational Structure – Changes in the Sectoral Distribution of Income and Employment- Socio-Political and Economic Empowerment of Women.</p> <p>4) State Finances and Budgetary Policies – Trends in Revenue and Expenditures of State Government – Public Debt – Analysis of the State Budget.</p> <p>5) Five Year Plans of Andhra Pradesh – Outlays; Regional Imbalances – Development Strategies in Andhra Pradesh.</p> <p style="text-align: center;"><b><u>SECTION – III</u></b></p> <p style="text-align: center;"><b><u>ANDHRA PRADESH ECONOMY, PRESENT STATUS ITS STRENGTHS AND WEAKNESSES</u></b></p> <p>1) Growth and structure of industries in Andhra Pradesh, factories, small and tiny sectors, their composition and growth</p>			
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	<p>weaknesses and problems.</p> <p>2) Structure of agricultural outputs. Administrated prices including support and procurement prices - Public Distribution System in Andhra Pradesh.</p> <p>3) Regional disparities in income, industrial output, rainfall, irrigation, health and education in AP.</p> <p>4) Institutional and non-institutional sources of rural credit in AP - structure and growth - cooperatives and their share in total credit - adequacy and problems.</p> <p>5) Service Sector of AP – Importance, composition and growth with special reference to transport and communication, tourism and information technology.</p>	<p>– problems – remedial measures.</p> <p>2) Agricultural growth in Andhra Pradesh – Trends in agricultural output and productivity – Agricultural Price Policy – Public Distribution in Andhra Pradesh.</p> <p>3) Regional disparities in income, industrial output, irrigation, health and education in Andhra Pradesh.</p> <p>4) Agricultural credit in Andhra Pradesh – Sources of Rural Credit – Institutional and non –institutional-Co-operative Credit societies – Micro Finance and Development - Adequacy of credit.</p> <p>5)Service sector in Andhra Pradesh – with special reference to Power, Transport &amp; Communication, Tourism &amp; IT Sectors.</p>			
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**GROUP-I SERVICES MAIN EXAMINATION**  
**SUBJECT: PAPER-IV**

S.L. No	Existing Syllabus	Proposed Syllabus	Suggestion for		Substantiation on your Suggestions Additions / Deletions
			Additions	Deletions	
	<p style="text-align: center;"><b><u>SECTION-I</u></b></p> <p><b><u>ROLE AND IMPACT OF SCIENCE AND TECHNOLOGY IN THE DEVELOPMENT OF INDIA:</u></b></p> <p><b>UNIT1:</b> National policy of science and technology and changes in the policy from time to time, Technology Missions.</p> <p><b>UNIT 2:</b> Space programme in India and its applications with special reference to industrial, agricultural and other rural developmental activities, INSAT and IRS systems.</p> <p><b>UNIT 3:</b> Role of Information Technology in Rural India, basics of computers, computers in communication and broadcasting, software development in economic</p>	<p style="text-align: center;"><b><u>SECTION-I</u></b></p> <p><b><u>ROLE AND IMPACT OF SCIENCE AND TECHNOLOGY IN THE DEVELOPMENT OF INDIA:</u></b></p> <p><b>UNIT 1:</b> Science and Technology- Classical and emerging areas, National Policy of Science and technology and its changes, Importance of science and technology nation Building.</p> <p><b>UNIT 2:</b> Nation Policies of Science and Technology- energies in Policies with time, Technology Missions- Basics in Computers in Communication and Broad-casting, Role of the information Technology in rural India, Software Development in Economic Growth, Development of Nanotechnology, Role of Nanotechnology in different areas.</p>			

	<p>growth. Broad IT applications.</p> <p><b>UNIT 4:</b> Energy Resources: Energy demands, renewable energy resources, nuclear energy, the development and its utilisation in the country.</p> <p><b>UNIT 5:</b> Current Science &amp; Technology Developments in India, Climate change, Disaster Management (Floods, Cyclones and Tsunami ); Crop science in India, Fertilisers, Control of pests and diseases – scenario in India ; Drinking water and supply, urbanisation and industrial development.</p>	<p><b>UNIT 3:</b> Space Programme in India, its Applications with Reference to industrial, Agricultural and other rural development activities; INSAR, IRS, EDUSAT, Chandrayan, Mangalayan and other futures Programmes,a role of Space Programme in Agriculture and Rural Development.</p> <p><b>UNIT 4:</b> Energy Resources: Energy demands, Indian Energy Sciences Conventional energy powers, Tharmal, renewable energy resources, Solar, wind, Bio and wasted based, energy policies Geothermal and Tidel Sources, energy Policies in India, energy security.</p> <p><b>UNIT 5:</b> Current Science &amp; Technology Developments in India, Global Warming and Climate change, Floods, Cyclones and Tsunami, Natural and Manmade Disasters, Tsunami, Mobilization and Industrialization.</p>			
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	<p style="text-align: center;"><b><u>SECTION-II</u></b></p> <p><b><u>GENERAL AWARENESS WITH THE MODERN TRENDS IN LIFE SCIENCES</u></b></p> <p><b><u>UNIT 1:</u></b> Progress of Agricultural Science and its impacts - Introduction to Biotechnology: History of fermentation development, Industrially important fermentation products (antibiotics, organic acids, alcohols, vitamins, amino acids (only one in each category is to be studied)) Production of low volume, high value fermentation products (insulin, growth hormones, recombinant vaccines, interferon's)</p> <p><b><u>UNIT 2:</u></b> Plants and human affairs, characteristics of plants, usefulness for mankind, origin of agriculture, useful and harmful plants. Introduction to animals, Domestic and wild animals, usefulness of animals for mankind, Exploitation of animals by man for food and medical advancements.</p> <p><b><u>UNIT3:</u></b> Introduction to and applications of Genetic Engineering &amp; Stem Cell</p>	<p style="text-align: center;"><b><u>SECTION-II</u></b></p> <p><b>BIOLOGICAL RESOURCES, HUMAN WELFARE AND MODERN TRENDS IN LIFE SCIENCES</b></p> <p><b>UNIT 1:</b> Biological Resources: Plants, animals and Microbes. Outline classification of plants, animals and microorganisms. Microbial resources-history of fermentation development, industrially important fermentation products (antibiotics, organic acids, alcohols, vitamins, amino acids. Insulin, growth hormones, Recombinant vaccines.</p> <p><b>UNIT 2:</b> Plants and Animal Resources: Plants and ecosystem services. Uses of plants-food, fodder, medicine and fibres and other products. Cultivated plants-origin and Indian natives. Poisonous plants. Animals-wild and domesticated. Usefulness of animals for mankind for food and medical advancements.</p> <p><b>UNIT 3:</b> Human diseases-microbial infections. Common infections and preventive measures. Introduction to</p>			
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<p>Research: Basic concepts (the basic process of genetic engineering) – Biotechnology in agriculture (Biofertilisers, Biopesticides, Biofuels, Genetically modified crops, Tissue culture) animal husbandry (transgenic animals- applications) and environment(Biotechnology in Environmental clean up processes).</p> <p><b>UNIT 4:</b> Microbial infections; Common present day infections and preventive measures. Introduction to bacterial, viral, protozoal and fungal infections. Basic knowledge of infections caused by different groups of micro organisms – diarrhoea, dysentery, cholera, tuberculosis, malaria, viral infections like HIV, encephalitis, chikungunya, bird flu – preventive measures during out breaks.</p> <p><b>UNIT 5:</b> Vaccines: Introduction to immunity, Fundamental concepts in vaccination and traditional methods of vaccine production ( production of DPT and Rabies vaccine), Production of Modern Vaccines (production of Hepatitis vaccine), Applications of</p>	<p>bacterial, viral, protozoal and fungal infections. Basic knowledge of infections-diarrhoea, dysentery, cholera, tuberculosis, malaria, viral infections like HIV, Encephalitis, Chikungunya, bird flu-preventive measures during out breaks.</p> <p><b>UNIT 4:</b> Introduction to Genetic Engineering and Biotechnology. Basic concepts of genetic engineering. Enzymes and Plasmids. Tissue culture methods and applications. Stem Cell Research. Biotechnology in agriculture- Bio-pesticides, Bio-fertilizers, Bio-fuels, Genetically modified crops. Animal husbandry- transgenic animals. Biotechnology in Environmental cleanup-bioremediation.</p> <p><b>UNIT 5:</b> Vaccines: Introduction to immunity, Fundamental concepts in vaccination and traditional methods of vaccine production (production of DPT and Rabies vaccine), Production of Modern Vaccines (production of Hepatitis vaccine), and Applications of</p>			
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<p>immunological methods in diagnosis.</p> <p style="text-align: center;"><b><u>SECTION-III</u></b></p> <p><b><u>DEVELOPMENT &amp; ENVIRONMENT PROBLEMS:</u></b></p> <p><b><u>UNIT 1:</u></b> Environmental Segments, Promoting Environmental Protection, The Environment (Protection) Act, Air (Prevention and Control of Pollution) Act, Water (Prevention and control of pollution) Act, Water pollution Cess Act, Forest conservation Act, Environmentalism</p> <p><b><u>UNIT 2:</u></b> Natural Resources: Forest Resources – Types of Forests, Uses of Forests. Water Resources- Types of Dams, Drought Occurrences and Floods, Land Resources: Soils and Cropping patterns, Mineral resources.</p> <p><b><u>UNIT 3:</u></b> Eco-Systems and Bio-diversity: Terminology of Ecology, Basic Concepts of Ecology, concept of an Ecosystem, Food Chains in Eco systems, Types of Eco systems. Biodiversity and its conservation: Types of biodiversity, Hotspots of</p>	<p>immunological methods in diagnosis.</p> <p style="text-align: center;"><b><u>SECTION III</u></b></p> <p><b><u>ECOLOGY, NATURAL RESOURCES AND ENVIRONMENTAL ISSUES</u></b></p> <p><b><u>UNIT -1:</u></b> Ecosystems and Biodiversity: Ecology and its Domain. Ecosystem-structure and function. Energy flow in ecosystems- productivity and types of food chains. Principles of biogeochemical cycling. Types of Ecosystems- terrestrial biomes (Forests, deserts, grass lands and tundra) and aquatic ecosystems. Biodiversity: Nature – genetic, species and ecosystem diversity and value – economic values (food, fiber, medicine) and eco-centric values. Global biodiversity hot spots. Threats to Biodiversity. Biodiversity conservation- <i>in situ</i> and <i>ex situ</i>.</p> <p><b><u>UNIT -2:</u></b> Natural Resources: Types of Natural resources- renewable and Non-renewable. Forest resources. Fishing resources. Agriculture and Horticulture. Fossil Fuels- coal, petroleum and Natural Gas. Mineral resources. Water</p>			
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	<p>Biodiversity, threats to diversity.</p> <p><b>UNIT 4:</b> Environment Pollution and Solid Waste Management: Air Pollution, water pollution, Soil Pollution, Noise pollution. Solid Waste Management: Types of Solid waste, Factors affecting the solid waste generation, Impact of solid wastes, Recycling and reuse.</p> <p><b>UNIT 5:</b> Role of Information Technology in Environment and Human Health. Global Environmental Issues like Climate Change, Acid Rain, Global warming, Wasteland Reclamation, Watershed management, watershed approach for sustainable development.</p>	<p>resources – Types, Water shed management. Land resources – types of soils and soil reclamation. Non-conventional energy resources.</p> <p><b>UNIT -3:</b> Environmental pollution and Solid waste management: Sources, impacts and control of air pollution, water pollution and soil pollution. Noise pollution. Solid waste management – Types of solid waste, factors affecting solid waste generation, impacts of solid waste, recycling and reuse.</p> <p><b>UNIT -4:</b> Global Environmental issues and role of information Technology in Environment and Human Health: Global warming, Ozone layer depletion, Acid rain. Climate change and its impacts.</p> <p><b>UNIT -5:</b> Environmental legislation: International Law. Montreal protocol, Kyoto protocol, United Nations Framework Convention on Climate change, CITES. Environmental (Protection) act. Air (Prevention and Control of Pollution) Act. Water (Prevention and Control of Pollution) Act, Water pollution Cess Act, Forest conservation Act, Biodiversity Bill of</p>			
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**GROUP-I SERVICES MAIN EXAMINATION****SUBJECT: PAPER-V**

S.L. No	Existing Syllabus	Proposed Syllabus	Suggestion for		Substantiation on your Suggestions Additions / Deletions
			Additions	Deletions	
	<p align="center"><b><u>DATA INTERPRETATION AND PROBLEM SOLVING</u></b></p> <p>1. Data appreciation and interpretation using ratios, percentages and averages.</p> <p>2. Drawing conclusions from the data present in tabular, graphical and diagrammatical forms and to point out deficiencies, limitations or inconsistencies therein.</p> <p>3. Problem solving using the following:</p> <ul style="list-style-type: none"> <li>• Sequences and Series: Analogies of numbers and alphabets, completion of blank spaces in a:b::c:d, odd thing out, missing number in a sequence or series.</li> <li>• Coding and decoding problems: A given word or group of letters in English are to be coded or decoded based on the given</li> </ul>	<p align="center"><b><u>DATA INTERPRETATION AND PROBLEM SOLVING.</u></b></p> <p>1. Data Analysis – Analytical Interpretation of statistical Data, Study of Graphs and Charts - Bar graphs, Line graphs and Pie- charts and drawing conclusions.</p> <p>2. Problem Solving using the Following</p> <p style="padding-left: 40px;">a) Mensuration- Geometry</p> <p style="padding-left: 40px;">b) Time and Work, Speed -Time – Distance, Simple and Compound Interest, Calendar and Clock Problems, Blood Relation-Ship and Seating arrangement</p> <p style="padding-left: 40px;">c) Quantitative Aptitude – Number system, Number Sequences, Series, Averages, Ratio and Proportion, Profit and Loss.</p> <p style="padding-left: 40px;">d) Coding and Decoding problems:</p>			

	<p>code(s).</p> <ul style="list-style-type: none"> <li>• Date, time and arrangement problems: Calendar and clock problems, blood relationship and seating arrangements.</li> </ul> <p>Passage Analysis: A duly structured situation will be presented to the candidates and they will be asked to analyse and suggest their own solution to the problem arising out of situation. Alternatively, they may be called upon to prove the understanding of the situation by answering certain searching questions based on the situation.</p>	<p>A given word or Group of Letters in English are to be coded are decoded based on the given code (s)</p> <p>3) Passage Analysis: A duly structured situation will be presented to the candidates and they will be asked to analyze and suggest their own solution to the problem arising out of situation. Alternatively, they may be called upon to prove the understanding of the situation by answering certain searching questions based on the situation.</p>			
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