

**ANDHRA PRADESH PUBLIC SERVICE COMMISSION: VIJAYAWADA
DRAFT SYLLABUS COPY FOR GROUP-I MAINS EXAMINATION**

ENGLISH

Marks — 150

Medium: English

Time- 150 Minutes

Serial No.	TYPE OF QUESTION	Marks to be allotted
01	ESSAY (A minimum of 200 words and a maximum of 250 words): Choose any one topic from a list of five. (Descriptive/ analytical/ philosophical/ based on Current Affairs)	20
02	LETTER WRITING (in about 100 words): A formal letter expressing one's opinion about an issue. The issues can deal with daily office matters/ a problem that has occurred in the office/ an opinion in response to one sought by a ranked officer etc.	10
03	PRESS RELEASE/ APPEAL (in about 100 words): The PR or appeal should be on an issue pertaining to a recent concern/problem/disaster/rumours etc.	10
04	REPORT WRITING (in about 150 words): A report on an official function/event/field trip/survey etc.	15
05	WRITING ON VISUAL INFORMATION (in about 150 words): A report on a graph/image/ flow chart/table of comparison/ simple statistical data etc.	15
06	FORMAL SPEECH (in about 150 words): A speech (in a formal style) that is to be read out in a formal function. This could be an inauguration speech, an educational seminar/conference, a formal ceremony of importance etc.	15
07	PRECIS WRITING: A precis in about 100 words for a 300-word passage.	15

**ANDHRA PRADESH PUBLIC SERVICE COMMISSION: VIJAYAWADA
DRAFT SYLLABUS COPY FOR GROUP-I MAINS EXAMINATION**

08	READING COMPREHENSION:	15
	A reading passage of about 250 words to be given followed by short-answer type questions.	
09	ENGLISH GRAMMAR:	20
	Multiple choice questions set from the following list:	
	a. Tenses	
	b. Voice	
	c. Narration (Direct-Indirect)	
	d. Transformation of sentences	
	e. Use of Articles and Determiners	
	f. Use of Prepositions	
	g. Use of Phrasal verbs	
	h. Use of idiomatic expressions	
	i. Administrative Glossary	
	j. Synonyms/Antonyms	
	k. One-word substitution	
	l. Cohesive devices/Connectives/Linkers	
	m. Affixes	
	n. Words that cause confusion like homonyms/homophones.	
10.	TRANSLATION:	15
	Translation of a short passage (of about 150 words) from Regional Language to English.	
	Total	150

ANDHRA PRADESH PUBLIC SERVICE COMMISSION: VIJAYAWADA
DRAFT SYLLABUS COPY FOR GROUP-I MAINS EXAMINATION
TELUGU

Marks — 150

Medium: Telugu

Time- 150 Minutes

Serial No.	TYPE OF QUESTION	Marks to be allotted
1.	ESSAY (A minimum of 200 words and a maximum of 250 words): Choose any one topic from a list of five. (Descriptive/ analytical/ philosophical/ based on Current Affairs)	20
2.	To ELABORATE the thought of poetic or verse (any two of the three) (about 100 words)	10
3.	PRECIS WRITING: 1/3rd summary of the given passage in your words	10
4.	COMPREHENSION: A reading passage of about 250 words to be given followed by short-answer type questions.	10
5.	FORMAL SPEECH (Welcome, Farewell, Inauguration etc.) / Speech for the press conference (energy, farm credit, pollution, health related policy or problem) (in about 150 words)	10
6.	To PREPARE THE STATEMENTS for publicity media (in about 100 words)	10
7.	LETTER WRITING (in about 100 words):(Congratulation/Best wishes/Request/Complaint etc.)	10
8.	DEBATE WRITING (in about 150 words) (Newspaper issues / current issues / editorial presenting individual opinion)	10
9.	APPLICATION WRITING (in about 150 words)	10
10.	REPORT WRITING (in about 150 words)	10
11.	DIALOGUE WRITING OR DIALOGUE SKILLS: Dialogues between two people (in about 150 words) (Group discussion, work of the meeting, water, agriculture, health, sanitation, education related problems etc.)	10
12.	TRANSLATION: Translation from English to Telugu Language	10
13.	Grammar of Telugu	20
	Total	150

**ANDHRA PRADESH PUBLIC SERVICE COMMISSION: VIJAYAWADA
DRAFT SYLLABUS COPY FOR GROUP-I MAINS EXAMINATION**

PAPER-I - GENERAL ESSAY

Marks - 150 Medium: English/Telugu Time- 150 Minutes

The candidates are required to attempt three essays, one from each of the three sections, in about 800 words each.

Objective:

This paper is designed to test candidate's (i) knowledge / awareness of a variety of Subjects and (ii) their ability to compose a sustained piece of writing in the form of an essay.

Contents:

- i. current affairs
- ii. socio- political issues
- iii. socio economic issues
- iv. socio- environmental issues
- v. cultural and historical aspects
- vi. issues related to civic awareness
- vii. reflective topics

Areas of Testing:

This paper would test the following:

1. Ability to compose a well-argued piece of writing
2. Ability to express coherently and sequentially
3. Awareness of the subject

chosen Evaluation / Marking:

Credit will be given for the following:

1. Observing established rules and format for essay writing
2. Grammatical correctness of expression
3. Originality of thought and expression.

**ANDHRA PRADESH PUBLIC SERVICE COMMISSION: VIJAYAWADA
DRAFT SYLLABUS COPY FOR GROUP-I MAINS EXAMINATION**

**PAPER – II: HISTORY, CULTURE AND GEOGRAPHY OF INDIA AND ANDHRA
PRADESH**

Marks — 150 Medium: English / Telugu Time- 150 Minutes

A .History and Culture of India:

1. Pre-Historic Cultures in India- Indus Valley Civilization- Vedic Culture- Mahajanapadas- Emergence of New Religions-Jainism, Buddhism- Rise of the Magadha and Age of the Mauryas- Ashoka Dharma- Foreign Invasions on India- The Kushans- The Satavahanas, the Sangam Age in South India- the Sungas- the Guptas- the Kanauj and their Contributions- Historical Accounts of Foreign travelers- Early Educational Institutions.
2. The Pallavas, the Badami Chalukyas, the Rashtrakutas, the Kalyani Chalukyas and the Cholas- Socio Cultural Contributions, Language, Literature Art and Architecture- Delhi Sultanates- Advent of Islam and its Impact- Religious Movements like Bhakti and Sufi and Its Influence-Growth of Vernacular Languages, Scripts, Literature, Fine Arts- Socio Cultural Conditions of the Kakatiyas, the Vijayanagaras, the Bahmanis, the Qutubshahis and cotemporary South Indian kingdoms.
3. The Mughals Administration, Socio-Religious life and Cultural developments- Shivaji and Rise of Maratha Empire- Advent of Europeans in India- Trade practices- Rise of East India Company its Hegemony- Changes in Administration, Social and Cultural spheres- Role of Christian Missionaries.
4. Rise of British rule in India from 1757 to 1856- Land Revenue Settlement, Permanent Settlement, Ryothvari and Mahalvari-1857 Revolt and its Impact- Education, Press, Cultural changes- Rise of National Consciousness and changes- Socio-Religious Reform Movements in 19th century- Rajaram Mohan Roy, Dayananda Saraswathi, Swamy Vivekananda, Annie Besant, Sir Syed Ahmad Khan and others. Rise of Indian Nationalism- Activities of Indian National Congress- Vandemataram, Home Rule Movements- Self Respect Movement- Jyothiba Phule, Narayana Guru, Periyar Ramaswamy Naicker- Role of Mahatma Gandhi, Subhash Chandra Bose, Vallabai Patel- Satyagraha- Quit India Movement- Dr B.R. Ambedkar and his Contributions.
5. Indian Nationalism in three phases- Freedom Struggle 1885-1905, 1905-1920 and Gandhi Phase 1920-1947- Peasant, Women, Tribal and Workers Movements- Role of Different parties in Freedom Struggle- Local and Regional Movements- Inter Religious Unity and Communalism- Independence and Partition of India- India after Independence- Rehabilitation after partition- Linguistic Re-organization of States- Integration of the Indian States- Indian Constitution- Economic policies- Foreign Policy Initiatives.

**ANDHRA PRADESH PUBLIC SERVICE COMMISSION: VIJAYAWADA
DRAFT SYLLABUS COPY FOR GROUP-I MAINS EXAMINATION**

B . History and Culture of Andhra Pradesh:

- 6 . **Ancient:** The Satavahanas, the Ikshvakus, the Salankayanas, the Pallavas and the Vishnukundins- -Social and Economic Conditions- Religion, Language, Literature, Art and Architecture- Jainism and Buddhism in Andhra-The Eastern Chalukyas, the Rashtrakutas, the Renati Cholas and others- Socio-Cultural life, Religion- Telugu Script and Language, Literature, Art and Architecture.
7. **Medieval:** Socio- Cultural and Religious Conditions in Andhradesa 1000 to 1565 A.D.- Growth of Telugu Language and Literature (Kavitraya- Asthadiggajas)- Fine Arts, Art& Architecture during the reign of Kakatiyas, Reddis, Gajapatis and Vijayanagaras and their feudatories- Monuments-Significance, Contribution of Qutubshahis to Andhra History and Culture-Regional Literature- Praja Kavi - Vemana and others.
8. **Modern:** European Trade Establishments in Andhra- Andhra Under the Company Rule- Role of Christian Missionaries- Socio-Cultural, Literary Awakening- C.P. Brown, Thamos Munro, Mackenzie-Zamindary, Polegry System- Native States and Little Kings- Role of Social Reformers- Gurajada Apparao, Kandukuri Veeresalingam, Raghupati Venkataratnam Naidu, Gidugu Ramamurthy, Annie Besant and others- Library Movement in Andhra Pradesh- Role of News Paper- Folk and Tribal Culture, Oral Traditions, Subaltern Culture.
9. **Nationalist Movement:** Role of Andhra leaders- Justice Party, Non-Brahmin Movement- Nationalist and Revolutionary Literature- Gurrām Jashva, Boyi Bheemanna, Sri sri, Garimella Satyanarayana, Rayaprolu Subbarao, Unnava Lakshminarayana, Tripuraneni Ramaswamy Choudhary and others- Andhra Mahasabhas, Andhra Movement- prominent leaders- Alluri Sitaramraju, Duggirala Gopalakrishnaiah, Potti Sreeramulu, Konda Venkatappayya, Pattabhi Seetaramaiah, Ponaka Kanakamma, Dokka Sitamma- Grandhalaya Movement- Ayyanka Venkataratnam, Gadicherla Harisarvothamarao, Kasinathuni Nageswara Rao- Formation of Andhra State, 1953- Emergence of Andhra Pradesh, 1956- Andhra Pradesh 1956 to 2014- Causes for Bifurcation, 2nd June 2014 Impact.
10. **Andhra Pradesh:** Bifurcation of Andhra Pradesh and its impact on Administrative, Economic, Social, Political, Cultural and Legal Implications- Building of New Capital and its financial Implications- Division of Employees and their Native Issues- Effect of Bifurcation on Trade& Commerce, Industry – Implication of Financial Resources of State Government- Developmental Opportunities- Socio-Economic, Cultural and Demographic impact of Bifurcation- Impact on River water sharing and other link issues- A.P. Reorganization Act. 2014- the Arbitrariness of certain provisions.

**ANDHRA PRADESH PUBLIC SERVICE COMMISSION: VIJAYAWADA
DRAFT SYLLABUS COPY FOR GROUP-I MAINS EXAMINATION**

C. Geography: India and Andhra Pradesh

11. Physical Features and Resources: India and Andhra Pradesh, Major land forms, Climatic changes, Soil types, Rivers, Water, Streams, Geology, Rocks, Mineral Resources, Metals, Clays, Construction Materials, Reservoirs, Dams – Forests, Mountains, Hills, Flora and fauna, Plateau Forests, Hill Forests, Vegetation Classification.
12. Economic Geography : Agriculture, Live stocks, Forestry, Fishery, Quarrying, Mining, House hold Manufacturing, Industries – Agro, Mineral, Forest, Fuel and man power, Trade and Commerce, Communication, Road Transport, Storage and others.
13. Social Geography: Population Movements and Distribution, Human Habitations, Density, Age, Sex, Rural, Urban, Race, Caste, Tribe, Religion, Linguistic, Urban Migration, Education Characteristics.
14. Fauna and Floral Geography: Wild Animals, Animals, Birds, Reptiles, Mammals, Trees and Plants and others.
15. Environmental Geography: Sustainable Development, Globalization, Temperature, Humidity, Cloudiness, Winds, Special Weather Phenomena, Natural Hazards – Earth Quakes, Land Slides, Floods, Cyclones, Cloud Burst, Disaster Management, Impact Assessment, Environmental Pollution, Pollution Management.

**ANDHRA PRADESH PUBLIC SERVICE COMMISSION: VIJAYAWADA
DRAFT SYLLABUS COPY FOR GROUP-I MAINS EXAMINATION**

PAPER III - POLITY, CONSTITUTION, GOVERNANCE, LAW AND ETHICS

Marks — 150 Medium: English / Telugu Time- 150 Minutes

(A) Indian Polity and Constitution:

1. Indian Constitution and its salient features.
2. Functions and duties of the Indian Union and the State Governments.
3. Issues and challenges pertaining to the Federal structure — Role of Governor in States.
4. Distribution of powers between the Union and States (Union list, State list and Concurrent list) — Issues and challenges.
5. Rural and Urban Local Governance under 73^{r^d} and 74th Constitutional Amendment.
6. Constitutional Authorities and their Role.
7. Parliament and State Legislatures — structure, functioning, conduct of business, powers & privileges and issues arising out of these.
8. Judiciary in India — Structure and functions, important provisions relating to emergency and constitutional amendments, judicial review, Public Interest Litigation.

(B) Public Administration and Governance:

9. Meaning, Nature and Scope of Public Administration — Evolution in India —Administrative ideas in Kautilya's Arthashastra; Mughal administration; Legacy of British rule.
10. Role of Civil Services in Democracy.
11. Government policies and interventions for development in various sectors and issues and problems of implementation.
12. Development processes - the role of civil society, NGOs and other stakeholders.
13. Statutory, regulatory and various quasi-judicial authorities.
14. Good governance and e-governance- Transparency, accountability and responsiveness in governance — Citizen's Charter. RTI, Public Service Act and their implications, Concept of Social Audit and its importance.

**ANDHRA PRADESH PUBLIC SERVICE COMMISSION: VIJAYAWADA
DRAFT SYLLABUS COPY FOR GROUP-I MAINS EXAMINATION**

C) . Ethics in Public Service (Human Values and Ethics in Public Service)

15. Ethics and Human Interface: Essence, determinants and Consequences of Ethics in Human actions: dimensions of Ethics: Ethics in Private and Public relationships, Ethics-integrity and Accountability in Public Service.
16. Concept of Public Service, "Philosophical basis of Governance professional Ethics in the light of right understanding and Vision for Holistic Technologies, Codes of Ethics, codes of Conduct, RTI, Public Service Act, Leadership Ethics, Work culture, Ethical principles with in an Organisational content.
17. Attitude: Content, Functions, its influence and relation with thought and behaviour, Moral and Political attitudes, role of Social influence and persuasion.
18. Human values: Understanding the Harmony in existence-understating human existence as Co-existence. Happiness and Harmony in the family, Human relationships in the society and in the Nature. Gender Equability in the relationships.
19. Role of family, society and Educational Institutions in imparting values to citizens, lessons from the lives and teachings of great leaders, reformers and administrations.
20. Emotional intelligence-Concepts and their utilities and application in Administration and Governance.
21. Issues and challenges in Ethics-
Ethical and moral values in governance, Ethical issues in international relations, corruption, Lokpal, Lokayukta.
22. Contributions of moral thinkers and Philosophers in India.
23. Case studies in the above areas (15 to 22)

D) Basic Knowledge of Law in India

24. Constitution : Basic structure of constitution – Fundamental Rights – Directive Principles of State Policy. Bifurcation of powers between Centre and State and concurrent Powers. Powers of Judiciary, Executive and Legislature.
25. Criminal Law : Concept of Criminal punishment – Introduction to CrPC and IPC : Basic concepts New developments in Laws against sexual harassment – Laws relating to atrocities against Women and Children.

**ANDHRA PRADESH PUBLIC SERVICE COMMISSION: VIJAYAWADA
DRAFT SYLLABUS COPY FOR GROUP-I MAINS EXAMINATION**

26. Company Law – Meaning and components of Intellectual Property Rights – Laws relating to International Business relocation and Foreign Direct Investment – Laws governing listed companies.

27. Labour Laws : Basic concepts of Law relating to ESI, EPF, Minimum Wages, Equal Remuneration, Labour Welfare Fund, Materiality Benefit, Prevention of sexual harassment at work place, Recent trends in women security laws.

28. Civil Law : Basics of CPC – Difference between Order and Decree – Hierarchy of writs in India

29. Cyber Laws and Internet of Things : Cyber Law in view of recent technological advancements – Trends in administration of Cyber Law – Cyber Security and Cyber Crime – Jurisdiction in Cyber Crime

30. Economic Laws : Concepts of economics in Indian administration and legal perspective. International business and economic policy – Role of RBI in investments in India: governing of regulations of cash flow into and out of Indian economy.

31. Tax Laws : Laws relating to Income, Profits, Wealth Tax, Corporate Tax – GST.

**ANDHRA PRADESH PUBLIC SERVICE COMMISSION: VIJAYAWADA
DRAFT SYLLABUS COPY FOR GROUP-I MAINS EXAMINATION**

Paper – IV – ECONOMY AND DEVELOPMENT OF INDIA AND ANDHRA PRADESH

Marks — 150 Medium: English / Telugu Time- 150 Minutes

1. **Challenges of Indian Economy** – Pre and Post Independent India
2. **Agricultural development and Main Issues:** Its development so far – Contribution of agriculture to India's GDP – Issues of Financing, Production, Marketing and Distribution of Agriculture.
Agricultural pattern in Andhra Pradesh – Regional Disparities in agriculture – Issues of Financing, Production, Marketing and Distribution. Contribution of agriculture to SGDP.
3. **Resource Mobilization** -Types of resources: Physical capital and finance capital - Need for resource mobilization- Sources of resource mobilization: Public Sector and Private Sector - Savings and investment - Budgetary resources: Tax and non tax - Role of Public Debt in resource mobilization and effects: Market borrowing, loans, grants etc. Role of fiscal and monetary policies in resource mobilization - Role of foreign investment in resource mobilization, desirability and consequences - Multilateral agencies and resource mobilization - Physical resources

Resource Mobilization in Andhra Pradesh : Physical Capital and Financial Capital – Budgetary Resources : Tax and Non-tax Revenues – Public Debt : Resources and Consequences – Market borrowings, loans and grants from Centre.
4. **Inclusive growth:** Meaning and concept of Inclusion - India's experience - Ground reality and working of flagship schemes - India's growth story in this context - Why India's growth is not inclusive - Rural economy based growth. - Sustainable agriculture, food security and resilience for growth - Public distribution schemes - Financial inclusion as an instrument of inclusive growth - Poverty Alleviation and Employment Generation as a strategy for inclusive growth - Social sector development as an instrument for inclusive growth - Public private partnership for inclusive growth - Industrial Integration for inclusive growth - Sectoral and regional diversification as a tool for inclusive growth.

Inclusive growth in Andhra Pradesh : Rural Economy based growth – Financial Inclusion – Food Security : Public Distribution Scheme - Poverty Alleviation and Employment generation Schemes - Integrated Regional Development for inclusive growth.
5. **Government Budgeting** : Budget terminology - Types of budget - Features of outcome budgeting - Merger of Railway and General Budget - Benefits of budgeting - Flaws in budgeting process - Budget analysis

Andhra Pradesh Budgeting : Features and outcomes – Flaws in budgeting process – Analysis of Andhra Pradesh Budgets since 2014.
6. **Industrial policy and industrial development:-** New Economic Policy and Industrial policy under the policy of liberalization, privatization and globalization - Reforms since the New Economic Policies, New Industrial policy 1991 - Main features of Industrial development in India - Sectoral composition - Roles of private

**ANDHRA PRADESH PUBLIC SERVICE COMMISSION: VIJAYAWADA
DRAFT SYLLABUS COPY FOR GROUP-I MAINS EXAMINATION**

sector and public sector in employment, productivity, profit etc. - Strategies for disinvestment and privatization - Role of Small, Medium and Micro enterprises,

Government Policy, main problems, effects of globalization - New manufacturing policy Industrial disbursal and Industrial corridors - SEZs- Main issues like land use, relocation of same industries that exist, exports earnings vs loss of tax income - Industrial sickness, institutional mechanism to support the sick industries, exit policy issues - Main constraints in the industrial development of India - Effects of globalization on industries, Sub-prime crisis and sovereign debt crisis on Industry in India.

Industrial Finance in India: Role of development banking, commercial banking - venture capital, angel capital in industrialization and promotion of entrepreneurship.

Industrial Policy and Development in Andhra Pradesh : Industrial Corridors – Main issues like land use, location of industries, regional distribution

- 7. Infrastructure in India :** Transport Infrastructure : Ports, Roads, Airports, Railways – Energy Infrastructure - Water management infrastructure - Communication Infrastructure - Solid waste management - Earth monitoring and measuring networks - Urban infrastructure - Green infrastructure. Importance of Social and Economic overhead Capital in Economic Development. Importance of Infrastructure- Economic growth and development, Advantages of connectivity, Enhancing production and distribution, Attracting FDI and domestic investment, improving living Standards etc.

–

Infrastructure development programmes in India – the Golden Quadrilateral, National Highway Development Programme, Industrial Corridors, Manufacturing hubs, Sethusamudram project, J&K railway project, weather forecast and disaster management, television and broadcasting, telecommunications. Important issues: Ownership and financing, Pricing of Public utilities, Infrastructure as avenues for investment, Public Private Partnership and related issues, Operation and Maintenance of roads, railways, irrigation and power projects-Main problems and solutions. Impact on social development, Environmental impacts.

Investment in India : Capital and investment - Factors affecting investment – FDI - Angel Investors and Start-ups - M&A - Role of State - PPP (Public-Private Partnership) - Savings and Investment Trends

Infrastructure in Andhra Pradesh : Transport Infrastructure : Ports, Roads, Airports, Railways – Energy Infrastructure - Water management infrastructure - Communication Infrastructure - Solid waste management. Social and Economic overhead Capital in Economic Development. Operation and Maintenance of roads, irrigation and power projects. Factors affecting investment. FDI - Angel Investors and Start-ups - M&A - Role of State - PPP (Public-Private Partnership) - Savings and Investment Trends

**ANDHRA PRADESH PUBLIC SERVICE COMMISSION: VIJAYAWADA
DRAFT SYLLABUS COPY FOR GROUP-I MAINS EXAMINATION**

Paper -V SCIENCE AND TECHNOLOGY

Marks — 150

Medium: English / Telugu

Time- 150 Minutes

1. Integration of Science, Technology and Innovation for better human life; Science & Technology in everyday life; National Policies on proliferation of Science, Technology and Innovation; India's contribution in the field of Science and Technology. Concerns and challenges in the proliferation and use of science and technology; Role and Scope of Science and Technology in nation building. Major Scientific institutes for Science and Technology in AP and India. Major Scientific Institutes for Research and Development in AP and India. Achievements of Indian Scientist in the field of Science and Technology- Indigenous technologies and developing new technologies.
2. Information and Communication Technology (ICT) - its importance, advantages and challenges; E-governance and India; Cyber Crime and policies to address security concerns. Government of India Policy on Information Technology (IT). IT Development in AP and India.
3. Indian Space Programme - Past, Present and Future; Indian Space Research Organization (ISRO) — its activities and achievements; Satellite Programmes of India and Use of Satellites in different fields like Health, Education, Communication Technology, Weather forecasting affecting human lives; Defence Research and Development Organization (DRDO).
4. Indian's energy needs, efficiency and resources; Clean energy resources; Energy policy of India - Government Policies and Programmes. Conventional and Non- Conventional energy resources. Energy demands, Indian Energy Sciences, Conventional energy powers, Thermal, renewable energy resources, Solar, wind, Bio and waste based, energy policies Geothermal and Tidal Sources, energy Policies in India, energy security.
Salient features of Nuclear Policy of India; Development of Nuclear programmes in India, Nuclear Policies at the International level and India's stand on them.

Indian's energy needs, efficiency and resources; Clean energy resources; Energy policy of India - Government Policies and Programmes. Conventional and Non- Conventional energy resources. Energy demands, Indian Energy Sciences, Conventional energy powers, Thermal, renewable energy resources,

**ANDHRA PRADESH PUBLIC SERVICE COMMISSION: VIJAYAWADA
DRAFT SYLLABUS COPY FOR GROUP-I MAINS EXAMINATION**

Solar, wind, Bio and wasted based, energy policies Geothermal and Tidal Sources, energy Policies in India, energy security.

Salient features of Nuclear Policy of India; Development of Nuclear programmes in India, Nuclear Policies at the International level and India's stand on them.

5. Development Vs. Nature / Environment; Depletion of Natural Resources- Metals, Minerals – Conservation Policy. Environmental Pollution Natural and Anthropogenic and Environmental degradation. Sustainable Development — possibilities and challenges; Climate Change and Its effect on the world; Climate justice — a global phenomenon; Environment Impact Assessment, Natural Disasters – Cyclones, Earth Quakes, Landslides & Tsunamis – Prediction Management. Correlation between Health & Environment, Social Forestry, Afforestation and deforestation, Mining in AP and India. Types of Natural resources- renewable and Nonrenewable. Forest resources. Fishery resources. Fossil Fuels- Coal, Petroleum and Natural Gas. Mineral resources. Water resources – Types, Water shed management. Land resources – types of soils and soil reclamation.
6. 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, impacts of solid waste, recycling and reuse. Remedial measures for Soil erosion and Coastal erosion.

Global Environmental issues and role of information Technology in Environment and Human Health, Ozone layer depletion, Acid rain. Global Warming and its impacts.

Environmental legislation: International Law, Montreal protocol, Kyoto protocol, United Nations Framework Convention on Climate change, CITES. The Environment (Protection) act 1986, Forest conservation Act, Wildlife protection act. Biodiversity Bill of India - cop 21 - Sustainable Development Goals - National Disaster Management Policy, 2016 of India and Disaster management initiatives in India.

White Revolution, Green Revolution, and Green Pharmacy

**ANDHRA PRADESH PUBLIC SERVICE COMMISSION: VIJAYAWADA
DRAFT SYLLABUS COPY FOR GROUP-I MAINS EXAMINATION**

7. Nature, Scope and Applications of Biotechnology and Nanotechnology in India; Ethical, Social and Legal concerns, Government policies; Genetic engineering, issues related to it and its impact on human life.

8. Human diseases-microbial infections. Common infections and preventive measures. Introduction to 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. Introduction to Genetic Engineering and Biotechnology. Basic concepts of genetic engineering. Tissue culture methods and applications. Biotechnology in agriculture- Bio-pesticides, Bio-fertilizers, Bio-fuels, Genetically modified crops. Animal husbandry- transgenic animals. Vaccines: Introduction to immunity, Fundamental concepts in vaccination, Production of Modern Vaccines (production of Hepatitis vaccine).

9. Issues related to Intellectual Property Rights in the field of Science and Technology. Promotion of Science in AP and India.