ANNEXURE – II
Notification No.14/2019

SCHEME AND SYLLABUS

P.C.No.01
a) ASSISTANT B.C. WELFARE OFFICER IN A.P. B.C. WELFARE SERVICE,
b) ASSISTANT SOCIAL WELFARE OFFICER IN A.P. SOCIAL WELFARE SERVICE,
c) ASSISTANT TRIBAL WELFARE OFFICER IN A.P. TRIBAL WELFARE SERVICE

SCHEME OF THE EXAMINATION

For Screening Test

<table>
<thead>
<tr>
<th>WRITTEN EXAMINATION (Objective Types) Degree Standard</th>
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<tbody>
<tr>
<td>General Studies &amp; Mental Ability and Welfare Measures</td>
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<td>Duration Minutes</td>
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NEGATIVE MARKS: As per G.O.Ms. No.235, Finance (HR-I, Plg & Policy) Dept., Dt.06/12/2016, for each wrong answer will be penalized with 1/3rd of the marks prescribed for the question.

SCHEME FOR MAIN EXAMINATION (Degree Standard)

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<td>PAPER-III</td>
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<td>PART - B</td>
<td>Interview</td>
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NEGATIVE MARKS: As per G.O.Ms. No.235, Finance (HR-I, Plg & Policy) Dept., Dt.06/12/2016, for each wrong answer will be penalized with 1/3rd of the marks prescribed for the question.

SYLLABUS FOR SCREENING TEST

SECTION-I

No. of Questions: 75

GENERAL STUDIES AND MENTAL ABILITY

1. Events of national and international importance.
2. Current affairs- international, national and regional.
3. General Science and its applications to the day to day life Contemporary developments in Science & Technology and information Technology.
4. Social- economic and political history of modern India with emphasis on Andhra Pradesh.
5. Indian polity and governance: constitutional issues, public policy, reforms and e-governance initiatives with specific reference to Andhra Pradesh.
6. Economic development in India since independence with emphasis on Andhra Pradesh.
7. Physical geography of Indian sub-continent and Andhra Pradesh.
9. Sustainable Development and Environmental Protection
10. Logical reasoning, analytical ability and data interpretation.
11. Data Analysis:
   a) Tabulation of data
   b) Visual representation of data
   c) Basic data analysis (Summary Statistics such as mean, median, mode, variance and coefficient of variation) and interpretation
SECTION II

SOCIAL AND CULTURAL HISTORY OF ANDHRA PRADESH AND WELFARE PROGRAMMES


2. Various kingdoms that ruled Andhra Pradesh between 11th and 16th Centuries A.D Socio-Cultural and Religious conditions in Andhradesa between 11th to 16th Centuries A.D. Growth of Telugu Language, literature, Art, Architecture and Painting.


6. Priorities of State Government for the welfare and Economic Development of SC

GENERAL OVERVIEW OF THE INDIAN CONSTITUTION AND WELFARE AND PROTECTION MEASURES FOR WEAKER SECTIONS


14. Legislative Acts for eradication of Social evils and practices
SYLLABUS FOR MAIN EXAMINATION

P.C.No.01 a) ASSISTANT B.C. WELFARE OFFICER,
b) ASSISTANT SOCIAL WELFARE OFFICER,
c) ASSISTANT TRIBAL WELFARE OFFICER

PAPER –I

No. of Questions: 150                      Marks: 150

GENERAL STUDIES AND MENTAL ABILITY

1. Events of national and international importance.
2. Current affairs- international, national and regional.
3. General Science and its applications to the day to day life Contemporary developments in Science & Technology and information Technology.
4. Social- economic and political history of modern India with emphasis on Andhra Pradesh.
5. Indian polity and governance: constitutional issues, public policy, reforms and e-governance initiatives with specific reference to Andhra Pradesh.
6. Economic development in India since independence with emphasis on Andhra Pradesh.
7. Physical geography of Indian sub-continent and Andhra Pradesh.
9. Sustainable Development and Environmental Protection
10. Logical reasoning, analytical ability and data interpretation.
11. Data Analysis:
   a) Tabulation of data
   b) Visual representation of data
   c) Basic data analysis (Summary Statistics such as mean, median, mode, variance and coefficient of variation) and Interpretation

PAPER-II

SOCIAL AND CULTURAL HISTORY OF ANDHRA PRADESH AND WELFARE PROGRAMMES

No. of Questions: 150                      Marks: 150

2. Various kingdoms that ruled Andhra Pradesh between 11th and 16th Centuries A.D Socio- Cultural and Religious conditions in Andhradesa between 11th to 16th Centuries A.D, Growth of Telugu Language, literature, Art, Architecture and Painting.
### PAPER-III

**GENERAL OVERVIEW OF THE INDIAN CONSTITUTION AND WELFARE AND PROTECTION MEASURES FOR WEAKER SECTIONS**

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<th>No. of Questions: 150</th>
<th>Marks: 150</th>
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3. Distribution of Legislative and Executive Powers between the Union and the States; Legislative, Administrative and Financial relations between the Union and the States– Powers and the Functions of Constitutional Bodies- UPSC, State Public Service Commissions, CAG and Finance Commission.


5. Amendment Process to the Constitution - Centralization Vs Decentralization - Community Development Programs- Balwantray Mehta, Ashok Mehta Committees- 73rd and 74th Constitutional Amendment Acts and their Implementation.


7. Constitutional provisions for the up-liftment of SC/ST. Welfare Mechanisms in India provisions for Scheduled Castes, Tribes & Minorities, Reservations for SCs, STs and Backward classes – Prevention of SCs and STs Atrocities Act- National & State SCs, STs & BCs Commissions, Women’s Commission, National and State Minorities Commissions – Human Rights Commission – RTI- Lokpal & Lok Ayukt

8. Legislative Acts for eradication of Social evils and practices
P.C.No.02 SCHEME AND SYLLABUS FOR THE POST OF CIVIL ASSISTANT SURGEONS IN A.P. INSURANCE MEDICAL SERVICE

SCHEME OF THE EXAMINATION

WRITTEN EXAMINATION (Objective Type)

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<th>SUBJECT</th>
<th>No. Of Questions</th>
<th>Duration Minutes</th>
<th>Maximum Marks</th>
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NEGATIVE MARKS: As per G.O.Ms. No.235, Finance (HR-I, Plg & Policy) Dept., Dt. 06/12/2016, for each wrong answer will be penalized with 1/3rd of the marks prescribed for the question.

Syllabus

PAPER-I: GENERAL STUDIES AND MENTAL ABILITY

1. Events of national and international importance.
2. Current affairs- international, national and regional.
3. General Science and it applications to the day to day life Contemporary developments in Science & Technology and Information Technology.
4. Social- economic and political history of modern India with emphasis on Andhra Pradesh.
5. Indian polity and governance: constitutional issues, public policy, reforms and e-governance initiatives with specific reference to Andhra Pradesh.
6. Economic development in India since independence with emphasis on Andhra Pradesh.
7. Physical geography of Indian sub-continent and Andhra Pradesh.
9. Sustainable Development and Environmental Protection
10. Logical reasoning, analytical ability and data interpretation.
11. Data Analysis:
   a) Tabulation of data
   b) Visual representation of data
   c) Basic data analysis (Summary Statistics such as mean, median, mode, variance and coefficient of variation) and Interpretation

PAPER-II

Subject: (MEDICAL SCIENCE, GENERAL MEDICINE AND GENERAL SURGERY)

HUMAN ANATOMY: Gross and microscopic anatomy and movements of shoulder hip and knee joints – Gross and microscopic anatomy and block supply of lungs, heart, kidneys, liver, testis and uterus – Gross anatomy of pelvis, perineus and inguinal region. Cross sectional anatomy of the body at mid-thoracic, upper abdominal, mid-abdominal and pelvic regions. Major steps in the development of lung, heart, kidney, urinary bladder, uterus, ovary, testis and their common congenital abnormalities – Placenta and placental barrier – Neural pathways for cutaneous sensations and vision cranial nerves iii, iv, v, vi, vii, ix; distribution and clinical significance - Anatomy of the automatic control of gastrointestinal respiratory and reproductive systems.

Glomerular and tubular functions of kidney – Blood groups, Rh grouping, blood transfusion, and Blood volume.


P.C.No.03 SCHEME AND SYLLABUS FOR THE POST OF ZILLA SAINIK WELFARE OFFICERS IN A.P.
SAINIK WELFARE SERVICE

SCHEME OF THE EXAMINATION

<table>
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<tr>
<th>Paper</th>
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<th>Duration Minutes</th>
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NEGATIVE MARKS: As per G.O.Ms. No.235, Finance (HR-I, Plg & Policy) Dept., Dt.06/12/2016, for each wrong answer will be penalized with 1/3rd of the marks prescribed for the question.

Syllabus

**PAPER-I: GENERAL STUDIES AND MENTAL ABILITY**

1. Events of national and international importance.
2. Current affairs- international, national and regional.
3. General Science and its applications to the day to day life Contemporary developments in Science & Technology and Information Technology.
4. Social-economic and political history of modern India with emphasis on Andhra Pradesh.
5. Indian polity and governance: constitutional issues, public policy, reforms and e-governance initiatives with specific reference to Andhra Pradesh.
6. Economic development in India since independence with emphasis on Andhra Pradesh.
7. Physical geography of Indian sub-continent and Andhra Pradesh.
9. Sustainable Development and Environmental Protection
10. Logical reasoning, analytical ability and data interpretation.
11. Data Analysis:
   a) Tabulation of data
   b) Visual representation of data
   c) Basic data analysis (Summary Statistics such as mean, median, mode, variance and coefficient of variation) and Interpretation

**Paper-2: ENGLISH**

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
PAPER-3: ELEMENTARY MATHEMATICS (SSC standard)

ARITHMETIC: Number system-Natural numbers, Integers, Rational and Real numbers, Fundamental operations, addition, subtraction, multiplication, division, square roots, Decimal fractions.

Unitary method - time and distance, time and work, percentages, applications to simple and compound interest, profit and loss, ratio and proportion, variation.


ALGEBRA: Basic Operations, simple factors, Remainder Theorem, H.C.F., L.C.M. Theory of polynomials, solutions of quadratic equations, relation between its roots and coefficients (Only real roots to be considered). Simultaneous linear equations in two un-knowns-analytical and graphical solutions. Simultaneous linear inequations in two variables and their solutions. Practical problems leading to two simultaneous linear equations or inequations in two variables or quadratic equations in one variable and their solutions. Set language and set notation, Rational expressions and conditional identities, Laws of indices.

TRIGONOMETRY: Sine x, Cosine x, Tangent x when 0o ≤ x ≤ 90o values of sin x, cos x and tan x, for x=0o, 30o, 45o, 60o and 90o

Simple trigonometric identities.

Use of trigonometric tables.

Simple cases of heights and distances.


MENSURATION: Areas of squares, rectangles, parallelograms, triangle and circle. Areas of figures which can be split up into these figures (Field Book) Surface area and volume of cubics, lateral surface and volume of right circular cones and cylinders, surface area and volume of spheres.

STATISTICS: Collection and tabulation of statistical data, Graphical representation frequency polygons, histograms, bar charts, plo charts etc. Measures of central tendency.
P.C.No.04 SCHEME AND SYLLABUS FOR THE POST OF ASSISTANT DIRECTOR IN ANDHRA PRADESH
TOWN & COUNTRY PLANNING

SCHEME OF THE EXAMINATION

Degree Standard

WRITTEN EXAMINATION [OBJECTIVE TYPE]

<table>
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<tr>
<th>Paper</th>
<th>Subject</th>
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<th>Duration</th>
<th>Maximum Marks</th>
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<td>Paper - II</td>
<td>Town Planning - I</td>
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N.B.1: As per G.O.Ms. No.235 Finance (HR-1, Plg & Policy) Dept, Dt: 06/12/2016, for each wrong answer will be penalized with 1/3rd of the marks prescribed for the question in all Objective type papers.

N.B.2: The candidate must possess B.Arch or B.E(civil) or M.A (Geography) and Post Graduate Degree or Diploma in Town and Country Planning

SYLLABUS

PAPER-I: GENERAL STUDIES AND MENTAL ABILITY

1. Events of national and international importance.
2. Current affairs- international, national and regional.
3. General Science and it applications to the day to day life Contemporary developments in Science & Technology and Information Technology.
4. Social- economic and political history of modern India with emphasis on Andhra Pradesh.
5. Indian polity and governance: constitutional issues, public policy, reforms and e-governance initiatives with specific reference to Andhra Pradesh.
6. Economic development in India since independence with emphasis on Andhra Pradesh.
7. Physical geography of Indian sub-continent and Andhra Pradesh.
9. Sustainable Development and Environmental Protection.
10. Logical reasoning, analytical ability and data interpretation.
11. Data Analysis:
   a) Tabulation of data
   b) Visual representation of data
   c) Basic data analysis (Summary Statistics such as mean, median, mode, variance and coefficient of variation) and Interpretation

PAPER-II

Town Planning - I

1. History of Town planning: - Principles of town Planning, Town planning in ancient India, Indus valley Civilization, medieval period, necessity of town planning, growth and forms of towns, site selection for an ideal town, urbanization and, industrialization and its effects on town planning.
2. Density gradient / distribution for carrying capacity analysis in relation to utilities and services.
3. Urban design considerations in Urban planning theory and practice
4. Planning techniques:- Basic methods of various types of surveys, collection of data, methods adopted to collection of data standards for development and re-development of residential, commercial, industrial and re-creational areas, land use planning, socio-economic data for urban planning, inclusive planning and sustainable development.
5. Master planning and Zoning:- Objects and necessity of Master plan , stages in preparation of master plan, principles of zoning, objects and importance of zoning.
development control regulations, site plans /area plans. Physical and social infrastructure.

6. Slum and re-development of existing towns: causes, growth, characteristics, effects of slums, slum clearance and re-habilitation, presentation of slum formation, compensation for slum clearance, objects of development, urban renewal.

7. Housing: Housing policy, different types of housing Agencies involved in housing, infrastructure planning for housing, different categories of houses HUDCO norms, requirements and classification of residential buildings. Fundamentals of Development Control Norms / Regulations, ECBC Norms and GRIHA relating systems, concepts behind development of area-specific byelaws (for eg.in Heritage & Conservation areas).

8. Parks and Playgrounds: Selection of site for parks, forms of recreational grounds planning standards for parks / open spaces, sports stadiums.


10. Traffic and Transportation planning: Principles of traffic and transportation planning, classification of roads, principles of segregation of traffic, types of streets, road system, road junctions, parking facilities, traffic signals, street lightings, traffic management.


12. Regional Planning: Concept of Regional Planning, principle involved in delineation of regions, factors influencing, Regional planning

PAPER-III
Town Planning – II


2. Elements of Economics & Sociology: Concepts and definitions of Sociology & Economics in Urban and Regional Context, Economic Planning in India. Theories of land economics, concepts and definition of poverty, sociological concepts, stratifications in India and global context.


4. Planning principles for eco-sensitive zones (coastal habitat, hill towns, riverfront, etc): Bio-climatic considerations at neighborhood level to city level

5. Planning & Management for Disasters: Disaster risk, vulnerability and capacity assessment (concepts and methodology), Disaster management and Planning, Hazard safety legislations, role of various stakeholders and community based disaster risk management.

6. Integration of disaster mitigation strategy in Urban and Regional planning.

7. Financing and institutional Mechanisms for Projects: Municipal Finance, Polity support and budgetary allocations for implementation & Financing of urban projects, additional funding sources, resources based on achievement of urban reforms, implementation of urban projects, institutional capacity enhancement, issues on privatization, plan forms and indices.

P.C.No.05 SCHEME AND SYLLABUS FOR THE POST OF ASSISTANT CHEMIST IN AP GROUND WATER SERVICE

SCHEME OF THE EXAMINATION

<table>
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<th>Paper</th>
<th>Subject</th>
<th>No. Of Questions</th>
<th>Duration Minutes</th>
<th>Maximum Marks</th>
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N.B.1: As per G.O.Ms. No.235 Finance (HR-1, Plg & Policy) Dept, Dt: 06/12/2016, for each wrong answer will be penalized with 1/3rd of the marks prescribed for the question in all Objective type papers.

N.B.2: The Candidate must possess M. Sc. Degree in Chemistry or Applied Chemistry or a Degree in Chemical Engineering, Chemical Technology from a University.

SYLLABUS

PAPER-I: GENERAL STUDIES AND MENTAL ABILITY

1. Events of national and international importance.
2. Current affairs- international, national and regional.
3. General Science and its applications to the day to day life Contemporary developments in Science & Technology and information Technology.
4. Social- economic and political history of modern India with emphasis on Andhra Pradesh.
5. Indian polity and governance: constitutional issues, public policy, reforms and e-governance initiatives with specific reference to Andhra Pradesh.
6. Economic development in India since independence with emphasis on Andhra Pradesh.
7. Physical geography of Indian sub-continent and Andhra Pradesh.
9. Sustainable Development and Environmental Protection
10. Logical reasoning, analytical ability and data interpretation.
11. Data Analysis:
   a) Tabulation of data
   b) Visual representation of data
   c) Basic data analysis (Summary Statistics such as mean, median, mode, variance and coefficient of variation) and interpretation
1. **PROCESS CALCULATIONS AND THERMODYNAMICS:** Laws of conservation of mass and energy; use of tie components; recycle, bypass and purge calculations; degree of freedom. Zeroth law; Isothermal states, Principles of thermometry. Scales of temperature. First and second laws of thermodynamics, Equations of state and thermodynamics properties of real systems; Phase equilibria; excess properties and correlations of active components; chemical reaction equilibria. Basics statistical thermodynamics.

2. Chemical periodicity: Periodic properties

3. Atomic structure nuclear properties, molecular symmetry, bonding in polyatomic molecules, concepts of acids and bases

4. Main group elements and their compounds Synthesis, bonding and structure.

5. Transition metal Chemistry and coordination compounds: Structure and bonding, Molecular Orbital (MO) theory of complexes, Crystal field theory (CFT), Jahn-Teller effect, magnetic properties, orbital splitting, spin-orbit coupling, calculation of CFSE, spectra of octahedral and tetrahedral complexes of d1 to d9 systems, and reaction mechanisms.

6. Organometallic compounds, their synthesis, bonding and structure, and reactivity. Organometallic compounds in homogenous catalysis.

7. Cage like structures and metal clusters.

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**PAPER-III**

**Chemistry-II**

1. Analytical Chemistry: separation techniques spectroscopic electro- and thermo-analytical methods

2. Characterization of inorganic compounds by infrared-, Raman- NMR-, electron spin resonance (EPR)-, UV-Visible, and Mass spectroscopic techniques

3. Nuclear chemistry — nuclear reactions fission and fusion and their applications, radio-analytical techniques and activation analysis

4. Molecular spectroscopy: Principles and applications of rotational and vibrational spectroscopy, NMR and EPR.

5. Chemical equilibrium: basic concepts, Solubility product, common ion effect, pH and buffer solutions, acids and bases hydrolysis of salts, phase equilibrium

6. Characterization of organic compounds by infrared (IR)-, NMR- UVVisible-, and Mass-spectroscopy techniques
P.C.No.06 SCHEME AND SYLLABUS FOR THE POST OF TOWN PLANNING ASSISTANT
IN A.P. TOWN & COUNTRY PLANNING

SCHEME OF THE EXAMINATION
Degree Standard

WRITTEN EXAMINATION (OBJECTIVE TYPE)

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<th>Subject</th>
<th>No. Of Questions</th>
<th>Duration</th>
<th>Maximum Marks</th>
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<td>General Studies &amp; Mental Ability (Degree Standard)</td>
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<td>Paper - II</td>
<td>Town planning-I</td>
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N.B.1: As per G.O.Ms. No.235 Finance (HR-1, Plg & Policy) Dept, Dt: 06/12/2016, for each wrong answer will be penalized with 1/3rd of the marks prescribed for the question in all Objective type papers.

N.B.2: Candidate must possess a minimum qualification of B. Arch, or B.E/B.Tech (Civil) or B. Planni (Planning/ B. Tech (Planning)

SYLLABUS

PAPER-I: GENERAL STUDIES AND MENTAL ABILITY

1. Events of national and international importance.
2. Current affairs- international, national and regional.
3. General Science and its applications to the day to day life Contemporary developments in Science & Technology and information Technology.
4. Social- economic and political history of modern India with emphasis on Andhra Pradesh.
5. Indian polity and governance: constitutional issues, public policy, reforms and e-governance initiatives with specific reference to Andhra Pradesh.
6. Economic development in India since independence with emphasis on Andhra Pradesh.
7. Physical geography of Indian sub-continent and Andhra Pradesh.
9. Sustainable Development and Environmental Protection
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11. Data Analysis:
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   b) Visual representation of data
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PAPER-II
Town planning-I

1. History of Town planning: - Principles of town Planning, Town planning in ancient India, Indus valley Civilization, medieval period, necessity of town planning, growth and forms of towns, site selection for an ideal town, urbanization and, industrialization and its effects on town planning.
2. Density gradient / distribution for carrying capacity analysis in relation to utilities and services.
3. Urban design considerations in Urban planning theory and practice.
4. Planning techniques:- Basic methods of various types of surveys, collection of data, methods adopted to collection of data standards for development and re-development of residential, commercial, industrial and re-creational areas, land use planning, socio- economic data for urban planning, inclusive planning and sustainable development.
5. Master planning and Zoning:- Objects and necessity of Master plan , stages in preparation of master plan, principles of zoning, objects and importance of zoning, development control regulations, site plans /area plans. Physical and social infrastructure.
6. Slum and re-development of existing towns: causes, growth, characteristics, effects of slums, slum clearance and re-habilitation, presentation of slum formation, compensation for slum clearance, objects of development, urban renewal.

7. Housing: Housing policy, different types of housing Agencies involved in housing, infrastructure planning for housing, different categories of houses HUDCO norms, requirements and classification of residential buildings. Fundamentals of Development Control Norms / Regulations, ECBC Norms and GRIHA relating systems, concepts behind development of areaspecific byelaws (for eg.in Heritage & Conservation areas).

8. Parks and Playgrounds: Selection of site for parks, forms of recreational grounds planning standards for parks / open spaces, sports stadiums.


10. Traffic and Transportation planning: Principles of traffic and transportation planning, classification of roads, principles of segregation of traffic, types of streets, road system, road junctions, parking facilities, traffic signals, street lightings, traffic management.


12. Regional Planning: Concept of Regional Planning, principle involved in delineation of regions, factors influencing, Regional planning.

PAPER-III
Town planning-II


2. Planning principles for eco-sensitive zones (coastal habitat, hill towns, riverfront, etc):
Bio-climatic considerations at neighbourhood level to city level.

3. Planning & Management for Disasters: Disaster risk, vulnerability and capacity assessment (concepts and methodology), Disaster management and Planning, Hazard safety legislations, role of various stakeholders and community based disaster risk management.

4. Integration of disaster mitigation strategy in Urban and Regional planning.

5. Financing and institutional Mechanisms for Projects: Municipal Finance, Polity support and budgetary allocations for implementation & Financing of urban projects, additional funding sources, resources based on achievement of urban reforms, implementation of urban 12 projects, institutional capacity enhancement, issues on privatization, plan forms and indices.

Written Examination (Objective Type) Degree Standard

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<th>Subject</th>
<th>No. Of Questions</th>
<th>Duration Minutes</th>
<th>Maximum Marks</th>
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<td>Paper I</td>
<td>General Studies &amp; Mental Ability</td>
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<tr>
<td>Paper II</td>
<td>Geology</td>
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N.B.1: As per G.O.Ms. No.235 Finance (HR - I, Plg & Policy) Dept, Dt: 06/12/2016, for each wrong answer will be penalized with 1/3rd of the marks prescribed for the question in all Objective type papers.

SYLLABUS

**Paper-I: General Studies and Mental Ability**

1. Events of national and international importance.
2. Current affairs, international, national and regional.
3. General Science and its applications to the day to day life, Contemporary developments in Science & Technology and Information Technology.
4. Social-economic and political history of modern India with emphasis on Andhra Pradesh.
5. Indian Polity and governance: constitutional issues, public policy, reforms and e-governance initiatives with specific reference to Andhra Pradesh.
6. Economic development in India since independence with emphasis on Andhra Pradesh.
7. Physical geography of Indian sub-continent and Andhra Pradesh.
9. Sustainable Development and Environmental Protection.
10. Logical reasoning, analytical ability and data interpretation.
11. Data Analysis:
   a) Tabulation of data
   b) Visual representation of data
   c) Basic data analysis (Summary Statistics such as mean, median, mode, variance and coefficient of variation) and Interpretation

**Paper-II: Geology**

Part-I

a) **General Geology:** Solar System. The Earth: its origin, age and internal constitution. Volcanoes-types, distribution geological effects and products. Earth-Quakes: intensity, magnitude, distribution, causes and effects. Elementary ideas about isostasy, geosynclines, mountain building, continental drift, sea floor spreading and plate tectonics.


Part – II


b) Mineralogy: Physical, chemical and optical properties of the following common rock forming minerals: quartz, feldspar, mica, pyroxene, amphibole, olivine, garnet, chlorite, carbonates, aluminosilicates. Structure of silicates and crystal chemistry of minerals. Gemstones.

c) Economic Geology: Ore, ore mineral and gangue. Classification of ore deposits. Important processes of their formation. Occurrence, origin and distribution in India of the ores of aluminium, chromium, copper, gold, lead, zinc, iron, manganese and radioactive elements. Deposits of minerals use as abrasives, refractories and in ceramics, deposits of coal and petroleum. Elements of prospective of mineral deposits.

Part – III

a) Igneous Petrology: Origin of magma and formation of igneous rocks. Bowen’s reaction principle. Crystallisation of binary systems. Classification of igneous rocks. Textures and structures of igneous rocks. Composition, origin and mode of occurrence of granite, syenite diorite, mafic and ultramafic groups, anorthosites and alkaline rocks.


Part – IV


## SCHEME AND SYLLABUS FOR THE POST OF TECHNICAL ASSISTANT IN A.P. POLICE

**TRANSPORT ORGANIZATION** SERVICE

### SCHEME OF THE EXAMINATION

<table>
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<tr>
<th>PAPER</th>
<th>SUBJECT</th>
<th>No. Of Questions</th>
<th>Duration Minutes</th>
<th>Maximum Marks</th>
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**NEGATIVE MARKS:** As per G.O.Ms. No.235, Finance (HR-I, Plg & Policy) Dept., Dt. 06/12/2016, for each wrong answer will be penalized with 1/3rd of the marks prescribed for the question.

### Syllabus

**Paper – I GENERAL STUDIES AND MENTAL ABILITY**

1. Events of national and international importance.
2. Current affairs- international, national and regional.
3. General Science and its applications to the day to day life Contemporary developments in Science & Technology and information Technology.
4. Social-economic and political history of modern India with emphasis on Andhra Pradesh.
5. Indian polity and governance; constitutional issues, public policy, reforms and e-governance initiatives with specific reference to Andhra Pradesh.
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    a) Tabulation of data
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    c) Basic data analysis (Summary Statistics such as mean, median, mode, variance and coefficient of variation) and Interpretation

**Paper – II AUTOMOBILE ENGINEERING**


