

ANDHRA PRADESH PUBLIC SERVICE COMMISSION: HYDERABAD
NOTIFICATION NO.35/2016, Dated.30/12/2016
ROYALTY INSPECTOR IN A.P. MINING SERVICE
(General Recruitment)

EDUCATIONAL QUALIFICATIONS:

Applicant must possess the qualifications as detailed below or equivalent thereto, as per the specifications in the relevant service rules and as per the indent received from the Department as on the date of notification

Sl. No	Name of the Post	Essential Educational Qualifications
1	Royalty Inspector in A.P. Mining Service (Multi Zone cadre)	Must possess a B.Sc., Degree in Geology from any recognized University of India established or incorporated by or under a Central or a State sector an Institution recognized by the University Grants Commission provided that candidates having Practical experience for a period of not less than two years in the investigation of mineral deposits and geological mapping or mining or underground water resources.

SCHEME AND SYLLABUS FOR THE ROYALTY INSPECTOR IN A.P. MINING SERVICE

SCHEME

WRITTEN EXAMINATION (Objective Type) (DEGREE STANDARD)				
PAPER-1	General Studies And Mental Ability	150 Marks	150 Questions.	150 Minutes
PAPER-2	Subject: Geology	300 Marks	150 Questions.	150 Minutes
	TOTAL	450 Marks		
<u>Negative Marks:</u> 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 emphases on Indian national movement.
5. Indian polity and governance: constitutional issues, public policy, reforms and e-governance initiatives.
6. Economic development in India since independence.
7. Geography of India with focus on Andhra Pradesh.
8. Disaster management: vulnerability profile, prevention and mitigation strategies, Application of Remote Sensing and GIS in the assessment of Disaster
9. Sustainable Development and Environmental Protection
10. Logical reasoning, analytical ability and data interpretation.
11. Data Analysis:
Tabulation of data
Visual representation of data
Basic data analysis (Summary Statistics such as mean and variance coefficient of variation etc.) and Interpretation
12. Bifurcation of Andhra Pradesh and its Administrative, Economic, Social, Cultural, Political, and legal implications/problems, including

- a). Loss of capital city, challenges in building new capital and it's financial implications.
- b). Division and rebuilding of common Institutions.
- c). Division of employees, their relocation and nativity issues.
- d). Effect of bifurcation on commerce and entrepreneurs.
- e). Implications to financial resources of state government.
- f). Task of post-bifurcation infrastructure development and opportunities for investments.
- g). Socioeconomic, cultural and demographic impact of bifurcation.
- h). Impact of bifurcation on river water sharing and consequential issues.
- i). AP REORGANISATION ACT, 2014 on AP and the arbitrariness of Certain provisions.

PAPER-2: 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.
- b) **Geomorphology:** Basic concepts. External and internal processes. Rock weathering. Cycle of erosion. Fluvial landforms and drainage patterns. Landforms of Aeolian, marine, glacial and 'Karst' landscapes. Elements of Remote Sensing.
- c) **Structural and field Geology:** Primary and secondary structures. Dip and strike of beds. Unconformities. Study of folds, joints, faults, foliation and lineations. Overthrusts and nappe structures. Stages of rock deformation. Construction of block diagrams, Stereographic and equal-area nets. Solutions of simple problems by stereographic net. Topographic maps and their interpretation. Use of clinometer compass in the field. Measurements of bed, foliation, folds joints, faults and lineations in the field. Principles of geological mapping. Effects of topography on outcrops. Drawing of sections.

Part – II

- a) **Crystallography:** Elements of crystal structure. Laws of crystallography, Symmetry elements of normal classes of seven crystal systems. Properties and interaction of light and crystalline matter. Petrological microscope and accessories. Construction and use of Nicole prism. Pleochroism, double refraction, extinction angle, birefringence and twinning in crystals, Isotropic, uniaxial and biaxial minerals.
- 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.
- b) **Sedimentary Petrology:** Sedimentary process and products. Classification of sedimentary rocks. Sedimentary structures. Residual deposits – their mode of formation, characteristics and types, Clastic deposits – their classification, mineral composition and texture. Elementary ideas about the origin and characteristics of quartz arenites, arkoses and greywackes. Siliceous and calcareous deposits of chemical and organic origin.
- c) **Metamorphic Petrology:** Types and factors of metamorphism. Zones, grades and facies of metamorphism. Regional and contact metamorphism. Textures and structures of metamorphic rocks. Metamorphism of argillaceous, arenaceous, calcareous and basic rocks. Metasomatism.

Part – IV

- a) **Paleontology:** Habits and habitats of animals. Fossils and fossilization. Modes of preservation. Application of fossils, Study of morphology and geological history of Foraminiferida, Brachipoda, Bivalvia, Gastropoda, Cephalopoda, Trilobita, Echinoidea and Anthozoa. Mammals of Siwalik Group. A brief study of Gondwana flora.
- b) **Stratigraphy and Geology of India:** Fundamental laws of stratigraphy. Stratigraphic classification lithostratigraphic, biostratigraphic and chronostratigraphic. Geological time scale. Physiographic divisions and outline of stratigraphy of India. Brief study of Dharwar, Vindhyan and Gondwana Supergroups and Siwalik Group with reference to their major subdivisions, lithology, fossils, aerial distribution and economic importance.

Sd/-
SECRETARY