भाग-1

:: सामान्य ज्ञान ::

1. भारत का इतिहास एवं भारत का स्वतंत्रता आंदोलन।
2. छत्तीसगढ़ का इतिहास एवं स्वतंत्रता आंदोलन में छ. ग. का योगदान।
3. भारत का भौतिक, सामाजिक एवं आधिकारिक भूगोल। (छत्तीसगढ़ के विशेष संदर्भ में)
4. भारत का आर्थिकव एवं राजस्व व्यवस्था। छ. ग. का आर्थिकविज्ञानी व्यवस्था, स्वायत्त शासन एवं वंचितवादी रत्न।
5. भारत का आर्थिकव व्यवस्था, वाणिज्य, उद्योग, वन, कृषि एवं हाथकरवार उद्योग। (छत्तीसगढ़ के विशेष संदर्भ में)
6. छ. ग. की जनसांख्यिकी, बोलियां, तीज, स्वामीवाद, नृत्य, पुरातात्विक एवं पेरीटन विद्या
7. समसामयिक घटनाएं एवं खेल (भारत एवं छ. ग. के संदर्भ में)
8. परिवर्तन।

PART-1

:: GENERAL KNOWLEDGE ::

1. History of India and Indian national movement.
3. Physical, Social and Economic geography of India. (With special reference to Chhattisgarh)
5. Economy, Commerce, Industry. Forest, Agriculture and Handloom Industries. (With special reference to Chhattisgarh)
6. Tribes, Special tradition, Teej and festival, Dance, archaeological and tourist centres of Chhattisgarh.
7. Current affair and sports (With reference to India and Chhattisgarh)

PART-2

(A) :: GEOLOGY (For Assistant Geologist) ::

1. STRUCTURAL GEOLOGY:
   2. Fractures and joints, their nomenclature, age relationship, origin and significance.
   4. Planar and linear fabrics in deformed rocks. their origin and significance.
   5. Concept of Petrofabrics and tectonic axes.
2. GEOMORPHOLOGY & REMOTE SENSING:
   1. Dynamics of geomorphology and geomorphic processes.
   2. Study of fluvial, and, karts and glacial landforms.
   3. Study of volcanic, structural and coastal landforms.
   5. Geomorphic regions of India. Principles of remote sensing.
   7. Satellite remote sensing. Global and Indian space missions. Satellite exploration programmes and their characteristics-
      LANDSTA, METEOSAT, SEASSET, SPOT, and IRS.
   8. Aerial photography, aerial photographs and their geometry.

3. MINERALOGY:
   1. Morphology of crystals, crystal zones, and zone symbols.
   3. Crystal aggregates, twinning and irregularities in crystals.
   4. Crystal optics. pleochroism, interference and birefringence in minerals.
   5. Refractometry and its determination. Uniaxial and biaxial indicatrices and optical characters of uniaxial and biaxial minerals.
   7. Classification of silicate structure, systematic mineralogy of nesosilicates olivine, Garnet and Al,SiO3 groups.
   8. Systematic mineralogy of soroisilicates - Epidote group, and zoisite, staurolite, and sphene.
   9. Systematic mineralogy of Cyclosilicates-Cordierite, Tourmaline and Bery l.
   10. Systematic mineralogy of Ionsilicates- Pyroxene and Amphibole groups.
   13. Systematic mineralogy of carbonates, oxides and hydroxides.

4. GEOCHEMISTRY:
   1. Origin and abundance of elements in the solar system and in the earth.
   2. Atomic structure and properties of elements in the periodic table. Special properties of transition and Rare earth elements.
   5. Stables isotopes: nature, abundance and fractionation.
   7. Element partitioning in mineral/rock formation and concept of simple distribution coefficients and exchange reaction distribution coefficients.

5. STRATIGRAPHY/TECTONICS:
   2. Lithostratigraphy, correlation and serigraphic code.
4 Plate tectonics. Dynamic evolution of continental and oceanic curst.
5 Evolution of sedimentary basins. Tectonics and sedimentation.
6 Tectonics of Precambrian orogenic belts of India.
8 Structure and origin of Alpine-Himalayan belt.

6. IGNEOUS PETROLOGY:–
1. Physics of Magma generation in the mantle
2. Evolution of Magma
3. Phase equilibrium of single, binary, ternary, and quaternary silicate systems, its relation of magma generation.
4. Crystallization of granitic and basaltic magma in the light of

7. METAMORPHIC PETROLOGY:–
2. Concept of depth zone and metamorphic zones and subfacies resulting from low to high-pressure metamorphism.
3. Study of characteristic metamorphic zones and subfacies resulting from very low pressure metamorphism.
4. Study of characteristic metamorphic zones and subfacies resulting from very high pressure metamorphism.
6. Petrogenesis of major igneous rocks types with reference to Indian occurrence

8. SEDIMENTOLOGY:–
1. Earth surface system: Liberation and flux of sediments.
2. Processes of transport and generation of sedimentary structures.
4. Textural analysis, Graphical representation and statistical treatment of grain size data and their significance.
5. Classification of sandstone and carbonate rocks. Dolomite and Dolomitization
7. Continental alluvial-fluvial facies, lacustrine, Desert-aralolian and glacial-sedimentary environmental.
8. Shallow coastal clastics and shallow water carbonates.

15. Rock Weathering and soil formation
16. Elemental mobility in surface environment.
17. Concept of geochemical-biogeochemical cycling and global climate.
18. Application of trace element, rare earth element and stable isotope geochemistry to sediment logical problems.

ORE GEOLOGY:–
1. Modern concepts of ore genesis. Spatial and temporal distribution of ore deposits. A global perspective. Comparison between earth's evolutionary history and evolutionary trends of ore deposits.
2. Concept of ore bearing fluids, their origin and migration. Fluid inclusions in ores principles, assumptions, limitations and applications.
3. Texture, paragenesis, and zoning of ores and their significance.
4. Wall rock alteration, structural, physico-chemical and stratigraphic control of ore localization.
5. Chemical composition of important ores-Bulk chemistry, trace elements, REE and stable and radiogenic isotopes.
7. Thermo-magmatic ores of felsic-ultramafic associations-Diamond in Kimberlites, REE in Carbonatites, Ti-V Ores, Chromite and PGE, Ni Ores, Cyprus type Cu-Zn Ores.
10. Porphyry associations, Kuroko Type Zn-Pb-Cu. Malanjkhand type Cu-Mo.
11. Ores of sedimentary affilliations-Chemical and clastic sediments, Stratiform and strata bound ore deposits (Fe,Mn,Nonferous.) Placers and paleoplacers.
12. Ores of Metamorphic affiliation-Metamorphism of ores and Ni/ Au laterite ores, ores related to weathered surfaces-leterite, Bauxite and Ni/Au laterite.
13. Mineralogy. Genesis, uses and Indian distribution of ore minerals related to:
   (a) Pb, Zn
   (b) Fe, Mn, Cr
   (c) W, Al
   (d) U and Th

GEOCHEMICAL EXPLORATION:–
1. Definition, scope and characteristic features of prospecting and exploration. Guides for mineral search, search, surface and subsurface indicators. Regional, stratigraphic, lithological, mineralogical structural and geobotanical guides.
5. Geological and Geochemical prospecting for copper, lead, zinc, nickel, oil and gas and atomic minerals.

GEOPHYSICAL EXPLORATION:–
12. MINING GEOLOGY:

3. Alluvial and open pit mining methods - advantages and disadvantages.
5. Coal mining and open bottom mining methods.

13. ENVIRONMENT GEOLOGY:

1. Concept of ecosystem-ecology.
2. Impact of man on environment.
3. Problems pertaining to urbanization.
4. Problems pertaining to wasteland and wet lands.
5. Problems pertaining to mining and utilization of energy resources.
6. Fundamental principles of wave propagation in seismic method. Refraction and reflection survey for single interface, horizontal and dipping cases, seismic velocity and interpretation of seismic data.

PART-2 (B) :: GEOLOGY (For Mining Inspector) ::

5. Mineralogy- Elements of crystal chemistry, types of bonding ionic radial coordination number. Isomorphism and pseudomorphism. Structural classification of silicates, study of the following rock forming minerals with respect to the physical chemical and optical properties - feldspars pyroxenes, amphiboles Mica garnets, olivine feldspathids, quartz, calcite kyanite andalusite silimanite.


7. Economic geology- Concept of ore, ore mineral gangue tenor of ores, processes of formation of mineral deposits common forms and structures of ore deposits, Classification of ore deposits. Controls of ore deposition, Study of important metallic and non metallic deposits, Mineral wealth of Chhattisgarh and India.

8. Prospecting and Exploration- Prospecting and Exploration Their definitions and Classification of Methods; Elementary Methods of Geological, Geophysical, Geochemical Prospecting; Guides To Ores.

9. Theodolite Surveying- Types of theodolites; Description of various parts of various Theodolite; Theodolites; Measurements of height and distance of accessible and inaccessible points; Traversing with Theodolite on surface and underground; Checks on Closed and Open traverses; Sources of error and their prevention in survey.