

PART III

14 - EARTH SCIENCES

(Answer ALL questions)

56. The Earth plates slider over on
- Lithosphere
 - Asthenosphere
 - Biosphere
 - Mesosphere
57. What is an average rate of increase in temperature with depth in Earth's interior?
- $3^{\circ}/100\text{m}$
 - $3.5^{\circ}/100\text{m}$
 - $3.8^{\circ}/100\text{m}$
 - $3.2^{\circ}/100\text{m}$
58. What is the term is used for slow, downhill movement of weathered rock?
- Diluvium
 - Rock slide
 - Soil creep
 - Mud flow
59. Choose the correct answer for the example of wind produced land form
- Mesa
 - Eskers
 - Beach
 - Rock Pedestal
60. Which of the following geological action responsible for development of Chatter marks?
- Glacial action
 - Gully erosion
 - Wind action
 - Weathering action
61. How do we designate the title of the science used to describe the landforms produced by exogenous geological agents?
- Geodynamics
 - Geomorphology
 - Stratigraphy
 - Remote Sensing
62. V-shaped valley defined as a
- steep-walled valleys having narrow depressions and are cut by streams and rivers
 - steep gorges cut by ocean
 - steep walls cut by landslide
 - steep walls formed by drifting of continents
63. Table-topped plateau of comparatively small extent bounded by cliffs and occurring in a region of horizontal strata is described as _____ landform.
- Escarpment
 - Butte
 - Mesa
 - Inselberg
64. Name the triangular erosional landform formed between adjacent canyons cut through a hogback.
- Gorge
 - Fletioin
 - Deep valley
 - V-shaped valley
65. Classify the drainage pattern from the following options for a net-work of parallel or subparallel streams developing in strike and dip direction.
- Dendritic
 - Centripetal
 - Annular
 - Trellis
66. Brahmaputra and Indus Rivers are the example of _____ streams.
- subsequent
 - insequent
 - antecedent
 - consequent

67. Shingle beach composed of
- Ill-sorted fragments
 - Well-rounded cobbles
 - Sea shell-mat
 - Assorted pebbles, cobbles and gravels
68. What is the lustre of a Diamond?
- Vitreous
 - Splendent
 - Adamantine
 - Dull
69. Uranium mineral is used for generating _____ power.
- Nuclear
 - Wind
 - Electrical
 - Solar
70. Name the type of rock, which is derived on the Earth surface by eroded/fragmented from parent rock, transportation by geological agents, deposited and lithified in a basin.
- Igneous rocks
 - Metamorphic rocks
 - Pyroclastic rocks
 - Sedimentary rocks
71. _____ texture is a recognition property of a Dolerite rock.
- Ophitic
 - Porphyritic
 - Poikilitic
 - Intergrowth
72. Tick the Metamorphic rock from the following options
- Basalt
 - Limestone
 - Marble
 - Granite
73. Peninsular India means, surrounded by
- The Indian Ocean on the south, the Arabian Sea on the west and the Bay of Bengal on the east.
 - Deccan traps
 - Igneous rocks
 - Eastern and western Ghats
74. Lignite deposit are in
- Cuddalore
 - Neyveli
 - Panruti
 - Bhuvanagiri
75. Fossil wood park is in _____ parts of TamilNadu.
- Tiruvakarai and Sattanur
 - Pudukkottai and Kallakurichi
 - Sivaganga
 - Karur
76. In which type of fault structure the hanging wall moves down relative to the footwall?
- Reverse
 - Echelon
 - Normal
 - Thrust
77. Horizontal axial plane recognises _____ fold structure.
- Isoclinal
 - Recumbent
 - Anticline
 - Syncline
78. A fracture, dividing the rock into two sections that moved away from each other called as _____ structure.
- Joint
 - Fold
 - Fault
 - Lineament

79. In granitic rock masses, three sets of joints occurs in which one set is horizontal and other two sets are vertical, all three sets being mutually at right angles to each other. Which of the following type of joint is appropriate to the above statement?
- Bedding joint
 - Oblique joint
 - Sheeting joint
 - Mural joint
80. In which part of the India, we have large deposits of Copper deposits?
- Khetri
 - Singhbhum
 - Kothakudam
 - Hatti
81. What is the host rock of Salem Magnesite?
- Limestone and dolomites
 - Quartzite
 - Granite and granodiorites
 - Biotite gneiss and Charnockites
82. Gold is a _____ metal.
- Heaviest
 - Light
 - Heavy
 - Hardest
83. Which of the following is path finder element of Gold?
- Cd
 - Pb
 - As
 - Bi
84. Red/ Ruby silver is ,
- Pyrargyrite
 - Hussite
 - Argentite
 - Wollastanite
85. Which of the following mineral is referred as Heavy spar?
- Fluorspar
 - Baryte
 - Cryolite
 - Diatomite
86. Petroleum is _____ natural resource.
- Inexhaustible
 - Exhaustible
 - Enduring
 - Residual
87. Vermiculate is a variety _____ group of mineral.
- Quartz
 - Vanadium
 - Feldspar
 - Mica
88. Which of the following is a fibrous mineral?
- Kyanite
 - Asbestos
 - Talc
 - Gypsum
89. What are Meteorites? Choose the correct answer from the following options
- Extra-terrestrial material
 - Marine material
 - Terrestrial material
 - Lacustrine material
90. In which of the following rocks Uranium is explored in India?
- Limestones
 - Shale
 - Conglomerates
 - Granites
91. The amount of a particular element present in the parent rock not affected by dispersion is called as
- Anomaly
 - Background value
 - Threshold
 - Critical value.

92. How do you present that the water entrapped in the interstices of sedimentary rock?
- Meteoric water
 - Juvenile water
 - Capillary water
 - Connate water
93. Storage co-efficient denotes
- The yield of an aquifer
 - Total water budget
 - TDS
 - Transmitivity
94. Which of the following formula is used to calculate the Total hardness of the water?
- $TH = Ca \times CaCO_3 / Ca + Mg \times CaCO_3 / Mg$
 - $TH = Mg \times Ca + CaCO_3 / Ca + Mg$
 - $TH = Mg \times Ca + MgCO_3 / Mg + Ca$
 - $TH = Ca \times MgCO_3 + CaMgCO_3 + Ca$
95. Ghyben-Herzberg equation is used to establish the relation between
- Water table and perched water table
 - Fresh and Saline water
 - Ground water and surface water
 - Rain water and connate water
96. HYPERION is a
- Satellite sensor
 - Earthquake detection sensor
 - GPR
 - Resistivity image
97. Which of the following field is used by Electromagnetic waves?
- Solar field
 - Polarised field
 - Electric field
 - Micro field
98. Which of the following can act as an example for air-borne platform?
- LISS-III
 - MOS
 - LISS-II
 - Dakota
99. Polar orbiting satellites are placed at an altitude range of
- 7-15 km
 - 70-150 km
 - 700-1500 km
 - 7000-15000 km
100. The acceleration due to gravity, "g" is maximum at
- Poles
 - Tropical regions
 - Sub-tropical regions
 - Equator
101. Which of the following is NOT an inverse square law?
- Coulomb's law of electrostatics
 - Hook's law
 - Newton's law of gravitation
 - Coulomb's law of magnet statics
102. Which type of seismic waves first arrives first at station from an earthquake hypocentre?
- Transverse waves
 - Raleigh waves
 - Primary waves
 - Surface waves
103. The GPS space segments consists of navigation satellite timing and ranging, whose number is
- 8
 - 12
 - 18
 - 24
104. How we defines that, the bodies of sea water of considerable volume moving along parallel to the shore?
- Littoral currents
 - Qscillatory waves
 - Translator waves
 - Rip currents

105. What type of coral reef that occur from a distance of shore and have flat-topped ridges?
- Fringing reef
 - Atolls
 - Barrier reef
 - Deposited reef
106. What occurs due to falling of large blocks due to release of stresses during Tunnelling?
- Rock fall
 - Rock burst
 - Blockage
 - Water gashing
107. When can the rocks act as a natural arch?
- Tunnel axis parallel to dip direction
 - Tunnel axis normal to dip direction
 - Tunnel axis inclined to dip direction
 - Tunnel axis parallel to strike direction
108. Choose the type of dam usually has a triangular profile and can resist the forces by its own weight
- Earth Dam
 - Arch Dam
 - Gravity Dam
 - Embankment dam
109. Which of the following is tallest Dam in India?
- Hirakud Dam
 - Bhakra Dam
 - Krishna raja Sagar Dam
 - Nagarjuna Sagar dam
110. Which of the following is released in large quantities from coal after it is burnt?
- Sulphur dioxide
 - Nitrogen dioxide
 - Hydrogen
 - Helium
111. Retention pond may be mitigate the _____ along the stream.
- Transportation
 - Point bar formation
 - Flood hazards
 - Erosion
112. What ratio of L/D is be used for triaxial test, when the test specimen is in cylinder shape?
- 1:1.5
 - 1:2.5
 - 1:4
 - 1:1
113. Compressive strength denotes that, the
- Maximum force expressed per unit area, where the rock can withstand without rupturing
 - Maximum force expressed per unit area, where the rock can withstand after rupturing
 - Maximum force expressed per unit area, where the rock can during rupturing
 - Maximum force expressed per unit area, where the rock can withstand in powdered form
114. El-Nino and La Nino are associated with?
- Ocean currents
 - Rare climatic events
 - Tsunami
 - Cyclone storms
115. What happens to Plastic waste in sea?
- It is a biodegradable material, it eventually disintegrates
 - All plastics is recycled by wave action
 - It never fully goes away, it just breaks into little pieces
 - It will be a food to fish