

13 — EARTH SCIENCES

(Answer ALL questions)

56. LOESS deposited by _____
1. Glacier
 2. Wind
 3. River
 4. Sea
57. Spheroidal weathering causes due to _____ process
1. Biological
 2. Chemical
 3. Thermal
 4. Anthropogenic
58. Oceanic crust is composed of _____
1. SIMA
 2. SIAL
 3. SICA
 4. SIMG
59. The composition of earth outercore is _____
1. Si and Na
 2. Ni and Fe alloy
 3. Na and Mg
 4. Si and Ca
60. One lithospheric (crustal) plate is forced downward under an upper plate is known as _____ zone
1. Subduction
 2. Sial
 3. Seismic
 4. Sima
61. When is the wind deflected due to the rotation of the Earth, it is called _____
1. Polar wind
 2. Geotropic wind
 3. Westerlies
 4. Trade winds
62. The reason behind the drifting away continents is _____
1. Weathering process
 2. Folding and faulting of rocks
 3. Tectonic process
 4. Erosion process
63. The drainage pattern which shows a lack of structural control to the stream flow direction is described as _____
1. parallel
 2. rectangular
 3. annular
 4. dendritic
64. Fining upward sequences are characteristic of _____
1. Meandering streams
 2. Braided streams
 3. Anastomosing streams
 4. Point bar
65. Batholiths are always associated with _____
1. Earth zones
 2. Orogenic belt
 3. Island arcs
 4. Folds and faults

66. When the two plate collide, they form a
1. Basin
 2. Subduction zone
 3. Bénioff zone
 4. Transformfault
67. Darcy's law is generally not applicable in the _____ region
1. Sand dunes
 2. Sedimentary rocks
 3. Karst
 4. Glacial deposits
68. The thickest coal seam in India is
1. Jaharia
 2. Bokaro
 3. Raniganj
 4. Singrauli
69. Diamond bearing conglomerates of central India underlie _____
1. Bhandar series
 2. Kaladgi series
 3. Sakoli series
 4. Saline series
70. Fore deep sediments occurs in
1. Siwalik System
 2. Cuddapah System
 3. Vindhyan System
 4. Haimantha System
71. Leucoxene is a variety of
1. Tourmaline
 2. Talc
 3. Topaz
 4. Sphene
72. An angle that a line in a plane makes with a horizontal line in that plane is called
1. Rake
 2. Hade
 3. Plunge
 4. Axis
73. Tear faults are a variety of
1. Strike faults
 2. Strike-slip faults
 3. Dip faults
 4. Dip-slip faults
74. Thickness variations within a tabular unit, layer or stratum illustrate by
1. Isopach map
 2. Isotope map
 3. Geological map
 4. Thematic map
75. Asphaltenes are molecular substances that are found in _____
1. Gas
 2. Paraffin
 3. Crude oil
 4. Resins
76. The geological age of the major hydrocarbon reservoir in the Bombay High oil field is
1. Cretaceous
 2. Holocene
 3. Oligocene
 4. Miocene

77. Which of the following is the correct sequence of minerals in terms of descending order of their hardness
1. Apatite-Calcite-Quartz
 2. Calcite-Apatite-Quartz
 3. Quartz-Apatite-Calcite
 4. Quartz-Calcite-Apatite
78. Porphyritic texture frequently found in
1. Plutonic rocks
 2. Volcanic rocks
 3. Hypabyssal rocks
 4. Volcanic and Hypabyssal rocks
79. In which of the following environment would you expect to find Oscillation Ripple marks?
1. Alluvial
 2. Beach
 3. Deep sea
 4. Estuary
80. Which of the following will not make a fossil?
1. Decomposed organic material
 2. Plant impressions
 3. Animal footprints
 4. Loose animal bones
81. Petrified fossil is formed
1. When minerals replace all or part of an plant
 2. Solid copy of the shape of an organism
 3. An extremely thin coating of carbon on rock
 4. An extremely thick coating of carbon on rock
82. Choose the sediment texture from order of largest to smallest
1. Boulder-Cobble-Gravel-Sand-Silt-Clay
 2. Boulder-Sand-Gravel-Cobble-Clay
 3. Sand-Boulder-Gravel-Clay
 4. Clay-Sand-Boulder-Gravel
83. When you stand in the beach, you can observe a tiny drainage channels in a beach caused by the flow seaward of water left in the sands of the upper part of the beach after the retreat of the tide. This sedimentary structure is referred as
1. Ripple marks
 2. Rain prints
 3. Rill marks
 4. Rain drop
84. Which of the following is a stress mineral?
1. Andalusite
 2. Kyanite
 3. Sillimanite
 4. Cordierite
85. Thermal metamorphism leads to
1. Change in mineralogical composition only
 2. Change in fabric only
 3. Change in mineralogical composition and fabric
 4. Change in texture only
86. The purple colour of Amethyst is due to process of
1. Titanium
 2. Manganese
 3. Iron
 4. Chromium

87. Placer gold deposits are mostly
1. Elluvial
 2. Alluvial
 3. Pluvial
 4. Colluvial
88. If the colour of the gossan is black, it indicates the presence of
1. Iron
 2. Graphite
 3. Copper
 4. Manganese
89. _____ type of coal is mining in Neyveli
1. Peat
 2. Anthracite
 3. Lignite
 4. Bituminous
90. Which of the following serves as an aquitard?
1. Loam
 2. Clay
 3. Sandy loam
 4. Solid granite
91. Permeability is measured in units called _____
1. Darcy
 2. Stokes
 3. Poise
 4. Weber
92. The type of dam preferred where the river section is wide and the foundation is unsound is _____
1. Gravity dam
 2. Multi arch dam
 3. Arch dam
 4. Embankment dam
93. Which of the following is NOT a fire-resistant material?
1. Vermiculite
 2. Biotite
 3. Chrysotile
 4. Powdered mica
94. Which of the following has the highest compressive strength?
1. Granite
 2. Dacite
 3. Marble
 4. Quartzite
95. Which of the following can be estimated from SP log against a saline-water saturated sandstone formation encountered in a well
1. Resistivity of formation water
 2. porosity
 3. Permeability
 4. Depth of invasion
96. Rock solution is geomorphologically significant in the weathering of _____
1. Glacial erosion
 2. Karst terrain
 3. Arid terrain
 4. Fluvial terrain

97. GPS constellation means

1. 8 orbit 4 satellites in each orbit
2. 24 orbits 4 satellites in each orbit
3. 6 orbits 4 satellites in each orbit
4. 12 orbits 4 satellites in each orbit

98. Altimeter is a sensor to record the measurement of

1. Height
2. Temperature
3. Direction
4. Pressure

99. El-Nino and La Nino are associated with

1. Ocean currents
2. Tsunami
3. Rare climatic events
4. Cyclone storms

100. Which one of the following resistivity layers result in K type curve?

1. Low-High-Low
2. Low-Low-High
3. High-Low-Low
4. High-Low-High

101. Thermal remote sensing for studies is confined to ————— portion of the EMR

1. 3 to 8 microns
2. 3 to 5 microns
3. 8 to 9 microns
4. 8 to 15 microns

102. Art of map making is referred as

1. Cartography
2. Topography
3. Contouring
4. Bathymetry

103. Inverse slope technique of interpretation used in —————

1. Induce polarisation method
2. Self potential method
3. Electrical profiling method
4. Vertical Electrical Sounding method

104. Which is the correct sequence of process water moves from the ocean to land in hydrologic cycle?

1. Evaporation, Precipitation, runoff, condensation
2. Evaporation, condensation, precipitation, runoff
3. Evaporation, runoff, Precipitation, condensation
4. Evaporation, condensation, runoff, Precipitation

105. Isohytes are the points joining the area equal

1. Pressure
2. Temperature
3. Rainfall
4. Salinity

106. The sensor on-board Chandrayann-1 mission to identify lunar minerals is

1. HEX
2. HySI
3. PAN
4. LISS

107. Which one of the following wavelengths penetrates clouds, rain, fog etc?

1. Infra-red
2. Visible
3. Ultra-violet
4. Microwave

108. Which of the following is NOT a polar orbiting satellite

1. IRS P4
2. CARTOSAT
3. INSAT 1D
4. LANDSAT 5

109. Flat topped hills or small mountains formed by stream action are called

1. Mesas
2. Cuestas
3. Buttes
4. Stream terraces

110. When a rock layer bends in response to stress and does NOT recover its original shape when the stress is removed, its behaviour is said to be _____

1. Plastic
2. Brittle
3. Elastic
4. Ductile

111. An isolated volcanic mountain, with a flat top and located below the surface of the sea is known as _____

1. Atoll
2. Guyot
3. Aqua-crater
4. Submarine trench

112. The wavelength region of the EMR exhibiting absorption for iron rich minerals is _____

1. NIR
2. SWIR
3. TIR
4. UV

113. Which of the following negative skewness?

1. Aeolian sands
2. River sands
3. Loess
4. Beach sands

114. Koyna reservoir is in

1. Madhya Pradesh
2. Maharashtra
3. Manipur
4. Mizoram

115. Salt domes which may indicate oil fields are indicated in aerial photo as _____

1. Radial drainage
2. Dendritic drainage
3. Braided drainage
4. Rectangular drainage