

GEOLOGY
(FINAL)

1. The core of the earth is composed essentially of
 - (A) Mg and Si
 - (B) Ni and Fe
 - (C) Na and K
 - (D) Si and Al

2. The mechanism of plate movement is thought to be driven by
 - (A) Isostasy
 - (B) Earth rotation
 - (C) Thermal convection cells
 - (D) Polar wandering

3. Most abundant element in the earth's crust is
 - (A) Oxygen
 - (B) Silicon
 - (C) Iron
 - (D) Aluminium

4. The term isostasy refers to
 - (A) Gravitational equilibrium
 - (B) Thermal equilibrium
 - (C) Magnetic equilibrium
 - (D) Electric equilibrium

5. Wadati-Benioff zone indicates
 - (A) Deep earthquakes
 - (B) Shallow earthquakes
 - (C) Intermediate earthquakes
 - (D) Both shallow and intermediate earthquakes

6. The most voluminous portion of the earth is
- (A) Crust
 - (B) Mantle
 - (C) Core
 - (D) Lithosphere
7. Which method is used to date relatively recent geological events?
- (A) K-Ar method
 - (B) U-Pb method
 - (C) Carbon-14 method
 - (D) The-Pb method
8. The terrestrial planet is
- (A) high dense rocky body
 - (B) low dense gaseous body
 - (C) water body
 - (D) None of the above
9. Sial and sima are separated by
- (A) Conrad discontinuity
 - (B) Mohorovic discontinuity
 - (C) Lehman discontinuity
 - (D) Gutenberg discontinuity
10. Which are the two major constituents of atmosphere?
- (A) Oxygen and Carbon
 - (B) Nitrogen and Carbon
 - (C) Oxygen and Nitrogen
 - (D) Argon and Oxygen
11. Aeolin topography is created by
- (A) rivers
 - (B) glaciers
 - (C) wind
 - (D) oceans

12. Hamada is formed by

- (A) deflation
- (B) abrasion
- (C) corrosion
- (D) attrition

13. Varve deposits are formed by

- (A) glacial
- (B) river
- (C) wind
- (D) None of the above

14. Ring of fire is observed around

- (A) Indian ocean
- (B) Pacific ocean
- (C) Atlantic ocean
- (D) Red sea

15. Which of the following rivers does **NOT** form delta?

- (A) Krishna
- (B) Narmada
- (C) Godavari
- (D) Mississippi

16. Stalagmites are formed in

- (A) Shales
- (B) Limestones
- (C) Sand stones
- (D) Granites

17. Lonar lake is formed by

- (A) Volcanic crator
- (B) Meteoritic impact
- (C) Karst lake
- (D) By glacial action

- +18. The difference between polar and equatorial radii of the Earth is
- (A) 41 km
 - (B) 31 km
 - (C) 21 km
 - (D) 11 km
19. Which drainage pattern signifies an area lacking structural control?
- (A) Trellis
 - (B) Dendritic
 - (C) Rectangular
 - (D) Radial
20. Uvala is
- (A) convergence of sink holes
 - (B) horizontal passages
 - (C) vertical passages
 - (D) deposit at cave floor
21. Dhands are small lakes of
- (A) River origin
 - (B) Glacial origin
 - (C) Aeolin origin
 - (D) None of the above
22. The term 'firm' indicates
- (A) Compact ice
 - (B) Massive ice mass
 - (C) Granular ice mass
 - (D) Melted ice
23. Choose the example of tectonic lake
- (A) Caspian sea
 - (B) Dead sea
 - (C) Baikal lake
 - (D) All of the above

24. 'Bars' are
- (A) connecting morines
 - (B) connecting hills
 - (C) connecting spits
 - (D) connecting mountains
25. Travertine or tufa is calcareous deposits formed by
- (A) Hot springs
 - (B) Geysers
 - (C) Fumaroles
 - (D) None of the above
26. 'Butterfly twinning' is present in
- (A) Rutile
 - (B) Gypsum
 - (C) Pyrite
 - (D) Diamond
27. Leucoxene is an alteration product of
- (A) Tourmaline
 - (B) Talc
 - (C) Sphene
 - (D) Gypsum
28. In Mohs scale of hardness, how many minerals are silicates?
- (A) 4
 - (B) 5
 - (C) 6
 - (D) 3
29. Tsunamis are
- (A) gravity waves
 - (B) gravitational waves
 - (C) magnetic waves
 - (D) seismic waves

30. Hardness of 'corundum' on the Mohs scale is
- (A) 6
 - (B) 7
 - (C) 8
 - (D) 9
31. 'Schillerization' is shown by
- (A) Plagioclase
 - (B) Diamond
 - (C) Hypersthene
 - (D) Quartz
32. In double-chain structure the ratio of silicon to oxygen is
- (A) 1:2
 - (B) 4:11
 - (C) 2:7
 - (D) 4:10
33. Chemical formula of 'Sylvite'
- (A) NaCl
 - (B) HCl
 - (C) KCl
 - (D) HNO₃
34. Molybdenite is a/an of molybdenum
- (A) Oxide
 - (B) Sulphide
 - (C) Carbonate
 - (D) Chloride
35. Chlorite belongs to
- (A) Soro silicates
 - (B) Phyllo silicates
 - (C) Ino silicates
 - (D) Neso silicates

36. Ruby is a red colour variety of
- (A) Corundum
 - (B) Beryl
 - (C) Calcite
 - (D) Quartz
37. Peridot is gem variety of
- (A) Galena
 - (B) Olivine
 - (C) Quartz
 - (D) Diamond
38. Fayalite crystallizes in which crystal system?
- (A) Monoclinic
 - (B) Triclinic
 - (C) Orthorhombic
 - (D) Cubic
39. Mn-Al garnet is
- (A) Pyrope
 - (B) Almandine
 - (C) Spessartite
 - (D) Uvarovite
40. Which is the gem variety of spodumene?
- (A) Diallage
 - (B) Omphacite
 - (C) Kunzite
 - (D) Hiddenite
41. Garnet is
- (A) Isotropic
 - (B) Anisotropic
 - (C) Both isotropic and anisotropic
 - (D) None of the above

42. The refractive index of Canada balsam is
- (A) 1.34
 - (B) 1.44
 - (C) 1.54
 - (D) 1.64
43. Optical sign can be determined by
- (A) Quartz plate
 - (B) Mica plate
 - (C) Gypsum plate
 - (D) All of the above
44. Rutile is a source of
- (A) Titanium dioxide
 - (B) Tungsten
 - (C) Manganese
 - (D) Iron
45. 'Mineral wool' is a substitute for
- (A) Talc
 - (B) Gypsum
 - (C) Asbestos
 - (D) Galena
46. Iron-cross twin is observed in
- (A) Pyrite
 - (B) Gypsum
 - (C) Feldspar
 - (D) Staurolite
47. How many cleavage sets are present in Quartz?
- (A) 2 sets
 - (B) 1 set
 - (C) 3 sets
 - (D) No cleavage

48. How many faces a rhombohedron has?
- (A) 4
 - (B) 5
 - (C) 6
 - (D) 8
49. Emerald is a variety of
- (A) Olivine
 - (B) Beryl
 - (C) Quartz
 - (D) Topaz
50. Which of the following minerals cannot be used as an abrasive?
- (A) Garnet
 - (B) Corundum
 - (C) Quartz
 - (D) Gypsum
51. Bowen's reaction series indicate the process of magma
- (A) fractional crystallization
 - (B) gravity separation
 - (C) liquid immiscibility
 - (D) filter pressing
52. Which rock contains relatively high percentage of silica?
- (A) Basalt
 - (B) Andesite
 - (C) Trachyte
 - (D) Rhyolite
53. Which one is not a discordant igneous body?
- (A) Dyke
 - (B) Batholith
 - (C) Sill
 - (D) Pluton

54. Rift and grain structure is observed in
- (A) Basalt
 - (B) Dolerite
 - (C) Granite
 - (D) Andesite
55. Dolerite shows texture
- (A) Seriate
 - (B) Allotriomorphic
 - (C) Pandidiomorphic
 - (D) Ophitic
56. Dacite is volcanic equivalent of
- (A) Granite
 - (B) Diorite
 - (C) Syenite
 - (D) Granodiorite
57. Rocks having particles of gravel size are
- (A) Arenaceous
 - (B) Rudaceous
 - (C) Argillaceous
 - (D) Calcareous
58. Mantle xenoliths are observed in
- (A) Kimberlite
 - (B) Granulite
 - (C) Granite
 - (D) Pegmatite
59. Choose correct pair of plutonic rock and its volcanic equivalent
- (A) Gabbro-Trachyte
 - (B) Granite-Rhyolite
 - (C) Syenite-Andesite
 - (D) Grandiorite-Basalt

60. Ripple marks are best observed in
- (A) Limestone
 - (B) Shales
 - (C) Conglomerate
 - (D) Sandstones
61. Chemical composition of chalcopyrite is
- (A) CuS
 - (B) Cu_2S
 - (C) CuFeS_2
 - (D) CuCO_3
62. Rain prints are observed in
- (A) Igneous rocks
 - (B) Sedimentary rocks
 - (C) Metamorphic rocks
 - (D) All of the above
63. Sandstone consisting of 60% quartz and 30% feldspars are called
- (A) Grit
 - (B) Conglomerate
 - (C) Greywacke
 - (D) Arkose
64. Chemical composition of Witherite is
- (A) CaCO_3
 - (B) BaCO_3
 - (C) MgCO_3
 - (D) PbCO_3
65. Satinspar is a variety of
- (A) Gypsum
 - (B) Calcite
 - (C) Talc
 - (D) Orthoclase

66. Greywacke is a product of
- (A) reducing environment
 - (B) oxidising environment
 - (C) neutral environment
 - (D) None of the above
67. Shingle is characteristic of environment
- (A) Terrestrial
 - (B) Abyssal
 - (C) Neurotic
 - (D) Littoral
68. What is the most abundant chemically or biochemically precipitated rock?
- (A) Limestone
 - (B) Rock salt
 - (C) Gypsum
 - (D) Chert
69. Eclogites are composed of
- (A) Hypersthene and almandine
 - (B) Omphacite and pyrope
 - (C) Hypersthene and pyrope
 - (D) Omphacite and almandine
70. Retrograde metamorphism is also known as
- (A) Diaphthoresis
 - (B) Addictive metamorphism
 - (C) Injective metamorphism
 - (D) None of the above
71. What is the main difference between limestone and dolomite?
- (A) Alumina content
 - (B) Lime content
 - (C) Magnesia content
 - (D) Soda content

72. Carbonate rocks after metamorphism give rise to
- (A) Malonate
 - (B) Marble
 - (C) Signature
 - (D) Mark
73. A rock composed of ore mineral and silicates formed by contact metamorphism of Carbonate rocks is called
- (A) Gondite
 - (B) Skarn
 - (C) Tactics
 - (D) Charnockite
74. Psammitic rocks are
- (A) Gravel rocks
 - (B) Aranaceous rocks
 - (C) Argillaceous rocks
 - (D) Rudaceous rocks
75. “Aureole” is observed in
- (A) Dynamic metamorphism
 - (B) Plutonic metamorphism
 - (C) Regional metamorphism
 - (D) Contact metamorphism
76. The deformation caused by stress is called
- (A) Tension
 - (B) Strain
 - (C) Compression
 - (D) Torsion
77. Authigenesis is found in
- (A) Igneous rocks
 - (B) Sedimentary rocks
 - (C) Metamorphic rocks
 - (D) All of the above

78. Which fold has two hinges?
- (A) Box fold
 - (B) Chevron fold
 - (C) Fan fold
 - (D) Drag fold
79. Columnar jointing generally develops in rocks
- (A) Granitic
 - (B) Syndetic
 - (C) Dioritic
 - (D) Basaltic
80. Transform fault is a
- (A) strike-slip fault
 - (B) reverse fault
 - (C) normal fault
 - (D) thrust fault
81. In a recumbent fold, the axial plane is nearly
- (A) vertical
 - (B) horizontal
 - (C) inclined $> 40^\circ$
 - (D) inclined $< 40^\circ$
82. Stress is proportional to strain, this is the statement for
- (A) Young's modulus
 - (B) Bulk modulus
 - (C) Body's law
 - (D) Hooke's law
83. Which of the following indicate faulting?
- (A) Slicken slides
 - (B) Breccia
 - (C) Grooves
 - (D) All of the above

84. The Parallelism of some directional property in the rock is known as

- (A) Foliation
- (B) Lineation
- (C) Cleavage
- (D) Bedding

85. In which type of unconformity the older rocks are of plutonic origin?

- (A) Angular unconformity
- (B) Disconformity
- (C) Non conformity
- (D) Local unconformity

86. Plumose marking is associated with

- (A) Faults
- (B) Joints
- (C) Folds
- (D) Unconformities

87. The time involved in formation of local unconformity is

- (A) Long
- (B) Moderate
- (C) Short
- (D) Not depends on time

88. The age of Bagh beds is

- (A) Cretaceous
- (B) Triassic
- (C) Jurassic
- (D) Permian

89. Nallamalai Group is famous for

- (A) Iron
- (B) Manganese
- (C) Mica
- (D) Copper and Lead

90. The Dharwarian rocks have a regional strike as

- (A) NNW-SSE
- (B) NW-SE
- (C) E-W
- (D) NNE-SSW

91. The age of Muth Quartzite is

- (A) Cambrian
- (B) Silurian
- (C) Ordovician
- (D) Devonian

92. Talchir beds are of origin

- (A) Glacial
- (B) Arid
- (C) Marine
- (D) Fluvial

93. The strike of Eastern Ghats is

- (A) E-W
- (B) NE-SW
- (C) NW-SE
- (D) N-S

94. Glossopteris flora was dominant in

- (A) Permo-carboniferous period
- (B) Devonian period
- (C) Jurassic period
- (D) Triassic period

95. The composition of Deccan traps is

- (A) Granitic
- (B) Andesite
- (C) Dioritic
- (D) Basaltic

96. Weathering of Deccan traps yield

- (A) Black carton soil
- (B) Laterite soil
- (C) Red soil
- (D) Alluvial soil

97. One of the youngest tectonic mountains in Indian subcontinent is

- (A) Aravallis
- (B) Western ghats
- (C) Himalayas
- (D) Eastern ghats

98. Devonian is the age of

- (A) Reptiles
- (B) Graptolites
- (C) Mammals
- (D) Fish

99. Pakhal group is equivalent to

- (A) Vindyans
- (B) Dharwas
- (C) Cuddapahs
- (D) Cambrian

100. The Karewars are found in

- (A) Gujarat
- (B) Kashmir
- (C) Assam
- (D) Kerala

101. Sinistral coiling is found in

- (A) Pupilla
- (B) Physa
- (C) Natica
- (D) Cypraea

102. The tapering of valve of a mollusc is known as
- (A) Peduncle
 - (B) Umbo
 - (C) Cardinal
 - (D) Lunule
103. The gastropod shells are made up of
- (A) one valve
 - (B) two equal valves
 - (C) two unequal valves
 - (D) All of the above
104. The remains of organisms are better preserved in
- (A) on land
 - (B) in the marine sediments
 - (C) in the tectonic areas
 - (D) in river environments
105. The age of “spirifer” of phylum brachiopod is
- (A) Ordovician
 - (B) Silurian to Permian
 - (C) Cambrian to Ordovician
 - (D) Permian only
106. Which of the following groups of fossils became extinct at the permo-triassic boundary?
- (A) Graptolites
 - (B) Ammonites
 - (C) Trilobites
 - (D) Dinosaurs
107. Which of the following is found below “CCD”?
- (A) Foraminifera
 - (B) Radiolarian
 - (C) Ostracods
 - (D) Coccolithopore

108. The appearance of dinosaurs started in
- (A) Jurassic
 - (B) Cretaceous
 - (C) Permian
 - (D) Triassic
109. The corona is the part ofshell
- (A) Ammonoid
 - (B) Echinoids
 - (C) Trilobite
 - (D) Bivalve
110. Ichnofossil is a
- (A) Trace fossil
 - (B) Living fossil
 - (C) Index fossil
 - (D) None of the above
111. What kind of imprints are *mold and cast* fossils?
- (A) both are negative
 - (B) negative and positive
 - (C) both are positive
 - (D) None of the above
112. Which of the following is an upper Gondwana fossil?
- (A) Ptilophyllum
 - (B) Glossopteris
 - (C) Gangamopteris
 - (D) Sigillaria
113. Hydrothermal deposits are mostly
- (A) Syngeneic
 - (B) Residual
 - (C) Epigenetic
 - (D) Placer

114. Iron is commonly precipitated as

- (A) Siderite
- (B) Hematite
- (C) Limonite
- (D) All of the above

115. "Gossan" is a

- (A) Ferruginous residue
- (B) Siliceous residue
- (C) Calcareous residue
- (D) Organic residue

116. The path finder element of gold is

- (A) As
- (B) Mo
- (C) Se
- (D) SO_4

117. Chalcopyrite is the ore mineral of

- (A) Al
- (B) Fe
- (C) Cu
- (D) At

118. Which rock is important source of diamond?

- (A) Gabbro
- (B) Eclogite
- (C) Basalt
- (D) Kimberlite

119. Which of the following is highest rank of coal?

- (A) Peat
- (B) Bituminous
- (C) Lignite
- (D) Anthracite

120. The metal content of ore is called

- (A) Gangue
- (B) Carat
- (C) Tenor
- (D) Pitch

121. *Brown coal* is another term for

- (A) Peat
- (B) Bituminous
- (C) Lignite
- (D) Anthracite

122. The major source of power generation in India is

- (A) Petroleum
- (B) Atomic
- (C) Coal
- (D) Wind

123. Which of the following is “heavy spar”?

- (A) Baryte
- (B) Apatite
- (C) Calcite
- (D) Orthoclase

124. Hydrothermal deposits formed under temperature 50°C – 200°C are known as

- (A) Mesothermal
- (B) Epithermal
- (C) Hypothermal
- (D) Telethermal

125. Chromite deposits occur in

- (A) Basic rocks
- (B) Acidic rocks
- (C) Ultrabasic rocks
- (D) Potash rocks

126. Petroleum and Natural gas are chiefly composed of
- (A) Hydrogen
 - (B) Nitrogen
 - (C) Hydrogen and Carbon
 - (D) Carbon
127. Which type of ore deposit is Diamond?
- (A) Early magmatic disseminated
 - (B) Early magmatic segregation
 - (C) Late magmatic disseminated
 - (D) Late magmatic segregation
128. “Digboi” oil field is located in
- (A) Assam
 - (B) Bombay
 - (C) Gujarat
 - (D) K-G basin
129. Which one of the following is **NOT** a source rock of petroleum?
- (A) Shale
 - (B) Limestone
 - (C) Silt
 - (D) Sandstone
130. Talchir coal fields are located in
- (A) Bihar
 - (B) Andhra Pradesh
 - (C) Odisha
 - (D) Maharashtra
131. “Manganite” is an ore mineral of
- (A) Mg
 - (B) Fe
 - (C) Mn
 - (D) Cu

132. Which of the following places in Kerala is noted for the occurrence of chromiferous lodestone?
- (A) Punalur
 - (B) Chalingal
 - (C) Angadipuram
 - (D) Akkulam
133. Koderma mica-belt is situated in
- (A) Bihar
 - (B) Odisha
 - (C) Andhra Pradesh
 - (D) Rajasthan
134. "Siderites" are
- (A) Iron meteorites
 - (B) Stony meteorites
 - (C) Stony-Iron meteorites
 - (D) Copper meteorites
135. Magma is characterized by
- (A) composition
 - (B) mobility
 - (C) temperature
 - (D) All of the above
136. Which is the most stable mineral in the weathering environment?
- (A) Quartz
 - (B) Hornblende
 - (C) Feldspar
 - (D) Olivine
137. Sea water is
- (A) slightly alkaline
 - (B) slightly acidic
 - (C) neutral
 - (D) None of the above

138. Ratio of volume of voids to the total volume is

- (A) Permeability
- (B) Porosity
- (C) Specific yield
- (D) Effective porosity

139. Secondary porosity is resulted

- (A) during the formation of rocks
- (B) after formation of rocks
- (C) before formation of rocks
- (D) both during and after formation of rocks

140. Clay is an example of

- (A) Aquifer
- (B) Aquiclude
- (C) Aquitard
- (D) Aquifuse

141. Isohyet is connecting equal

- (A) temperature
- (B) depth
- (C) thickness
- (D) rainfall

142. In which configuration the spacing between electrodes is kept equal?

- (A) Wenner
- (B) Schlumberger
- (C) Both Wenner and Schlumberger
- (D) None of the above

143. Space Application Centre (SAC) located in

- (A) Hyderabad
- (B) Bangalore
- (C) Nagpur
- (D) Ahmedabad

144. Principal ore of Mercury

- (A) stibnite
- (B) cinnabar
- (C) orpiment
- (D) realgar

145. Generally aerial photographs are taken

- (A) horizontally
- (B) vertically
- (C) at an angle of 45°
- (D) at an angle of 75°

146. The subsurface location where earthquake occur is known as

- (A) Focus
- (B) Mesocentre
- (C) Epicentre
- (D) Isocentre

147. P and S waves are

- (A) body waves
- (B) love waves
- (C) surface waves
- (D) None of the above

148. "ZnS" is composition of

- (A) Sphalerite
- (B) Anglesite
- (C) Cerrusite
- (D) Smithsonite

149. Lithospheric plate is composed of

- (A) Crust
- (B) Crust and upper Mantle
- (C) Mantle
- (D) All of the above

150. Which of the following is an ore mineral of Uranium?

- (A) Sphalerite
- (B) Pitchblende
- (C) Wolframite
- (D) Cassiterite

FOR REFERENCE ONLY - CUSAT

FINAL ANSWER KEY									
Subject Name: GEOLOGY									
SI No.	Key	SI No.	Key	SI No.	Key	SI No.	Key	SI No.	Key
1	B	31	C	61	C	91	D	121	C
2	C	32	B	62	B	92	A	122	C
3	A	33	C	63	D	93	B	123	A
4	A	34	B	64	B	94	A	124	B
5	A	35	B	65	A	95	D	125	C
6	B	36	A	66	A	96	A	126	C
7	C	37	B	67	D	97	C	127	A
8	A	38	C	68	A	98	D	128	A
9	A	39	C	69	B	99	C	129	D
10	C	40	D	70	A	100	B	130	C
11	C	41	A	71	C	101	B	131	C
12	A	42	C	72	B	102	B	132	B
13	A	43	D	73	B	103	A	133	A
14	B	44	A	74	B	104	B	134	A
15	B	45	C	75	D	105	B	135	D
16	B	46	A	76	B	106	C	136	A
17	B	47	D	77	B	107	B	137	A
18	C	48	C	78	A	108	D	138	B
19	B	49	B	79	D	109	B	139	B
20	A	50	D	80	A	110	A	140	B
21	C	51	A	81	B	111	B	141	D
22	C	52	D	82	D	112	A	142	A
23	D	53	C	83	D	113	C	143	D
24	C	54	C	84	B	114	D	144	B
25	A	55	D	85	C	115	A	145	B
26	B	56	D	86	B	116	A	146	A
27	C	57	B	87	C	117	C	147	A
28	A	58	A	88	A	118	D	148	A
29	A	59	D	89	D	119	D	149	B
30	D	60	D	90	A	120	C	150	B