GEOLOGY

1. Which of the following silicate minerals is most resistant to chemical weathering?

|  |  |
| --- | --- |
| (A) | Quartz |
| (B) | Olivine |
| (C) | Hornblende |
| (D) | Potassium feldspar |

2. The outer planets are composed mostly of

|  |  |
| --- | --- |
| (A) | rocks and ice |
| (B) | oxygen and nitrogen |
| (C) | hydrogen and helium |
| (D) | helium and krypton |

3. New seafloor is created at a

|  |  |
| --- | --- |
| (A) | deep-sea trench |
| (B) | mid-ocean ridge |
| (C) | subduction zone |
| (D) | transform fault |

4. Which of the following lies just below the epicenter of an earthquake?

|  |  |
| --- | --- |
| (A) | Focus |
| (B) | Isoseismal line |
| (C) | Richter line |
| (D) | Isohytal line |

5. Central Region of the Cyclone is characterized by

|  |  |
| --- | --- |
| (A) | high pressure |
| (B) | low pressure |
| (C) | constant pressure |
| (D) | very high pressure |

6. How old is the Earth?

|  |  |
| --- | --- |
| (A) | Approximately 4.5 thousand years |
| (B) | Approximately 4.5 billion years |
| (C) | Approximately 4.5 million years |
| (D) | Approximately 4.5 trillion years |

7. Average thickness of the Earth’s lithosphere is approximately

|  |  |
| --- | --- |
| (A) | 4 km |
| (B) | 20 km |
| (C) | 100 km |
| (D) | 500 km |

8. James Hutton proposed the principle of

|  |  |
| --- | --- |
| (A) | uniformitarianism |
| (B) | uniformity |
| (C) | conformity |
| (D) | universalism |

9. Which of the following is used to detect earthquakes?

|  |  |
| --- | --- |
| (A) | Geophones |
| (B) | Vibraphones |
| (C) | Seismometer |
| (D) | Tilt meters |

10. The theory of continental drift was proposed by

|  |  |
| --- | --- |
| (A) | Charles Darwin |
| (B) | Harry Hess |
| (C) | Alfred Wegener |
| (D) | J. Tuzo Wilson |

11. Mid-ocean ridges are also referred to as

|  |  |
| --- | --- |
| (A) | spreading centers |
| (B) | hot spots |
| (C) | island arcs |
| (D) | trench zones |

12. Mica belongs to

|  |  |
| --- | --- |
| (A) | Nesosilicate |
| (B) | Sorosilicate |
| (C) | Phyllosilicate |
| (D) | Inosilicate |

13. Which of the following minerals has piezoelectric property?

|  |  |
| --- | --- |
| (A) | Quartz |
| (B) | Biotite |
| (C) | Calcite |
| (D) | Plagioclase |

14. Which of the following is orthoamphibole?

|  |  |
| --- | --- |
| (A) | Anthophyllite |
| (B) | Hornblende |
| (C) | Tremolite |
| (D) | Actinolite |

15. The color of the grossular garnet is largely determined by the amount of

|  |  |
| --- | --- |
| (A) | Ca and Na |
| (B) | Fe and Mg |
| (C) | Na and K |
| (D) | Ti and Mn |

16. The Mohorovicic discontinuity is the boundary between

|  |  |
| --- | --- |
| (A) | mantle-core |
| (B) | crust-mantle |
| (C) | lithosphere-mantle |
| (D) | inner core-outer core |

17. Calcite and Aragonite are the

|  |  |
| --- | --- |
| (A) | Isomorphs of CaCO3 |
| (B) | Polymorphs of CaCO3 |
| (C) | Isomorphs of (CaMg)CO3 |
| (D) | Polymorphs of (CaMg)CO3 |

18. The most common rock-forming minerals in the crust are

|  |  |
| --- | --- |
| (A) | carbonates |
| (B) | oxides |
| (C) | silicates |
| (D) | sulfides |

19. Which of the following minerals has the highest hardness?

|  |  |
| --- | --- |
| (A) | Calcite |
| (B) | Orthoclase |
| (C) | Quartz |
| (D) | Talc |

20. How many cleavage plane/s do sheet silicates exhibit/s?

|  |  |
| --- | --- |
| (A) | One |
| (B) | Two |
| (C) | Three |
| (D) | Four |

21. Which mineral is commonly referred to as “fool’s gold”?

|  |  |
| --- | --- |
| (A) | Galena |
| (B) | Garnet |
| (C) | Pyrite |
| (D) | Hematite |

22. The chief raw material of ceramic industry is

|  |  |
| --- | --- |
| (A) | Clay |
| (B) | Quartz |
| (C) | Garnet |
| (D) | Limestone |

23. Which of the following minerals does not have SiO4 Tetrahedron?

|  |  |
| --- | --- |
| (A) | Quartz |
| (B) | Muscovite |
| (C) | Halite |
| (D) | Orthoclase |

24. Choose the odd one out

|  |  |
| --- | --- |
| (A) | Hypersthene |
| (B) | Augite |
| (C) | Hedenbergite |
| (D) | Anthophyllite |

25. What is the hardness of fluorite?

|  |  |
| --- | --- |
| (A) | 1 |
| (B) | 2 |
| (C) | 3 |
| (D) | 4 |

26. (Mg, Fe)2SiO4 is the chemical formula of

|  |  |
| --- | --- |
| (A) | feldspar |
| (B) | mica |
| (C) | olivine |
| (D) | pyroxene |

27. Which of the following is a non-pleochroic mineral?

|  |  |
| --- | --- |
| (A) | Hypersthene |
| (B) | Biotite |
| (C) | Garnet |
| (D) | Hornblende |

28. Which of the following minerals has two sets of good cleavage planes oriented at right angles to each other?

|  |  |
| --- | --- |
| (A) | amphibole |
| (B) | calcite |
| (C) | mica |
| (D) | pyroxene |

29. Minerals with the same chemical formula, but different crystal lattice structure are referred to as

|  |  |
| --- | --- |
| (A) | twins |
| (B) | isomorphs |
| (C) | polymorphs |
| (D) | silicates |

30. Which of the following feldspar exhibits play of colours?

|  |  |
| --- | --- |
| (A) | Sandine |
| (B) | Labradorite |
| (C) | Microcline |
| (D) | Albite |

31. …………… is the higher pressure polymorph of silica.

|  |  |
| --- | --- |
| (A) | Tridymite |
| (B) | Crystobalite |
| (C) | α-quartz |
| (D) | Stishovite |

32. Si-O ratio in Tectosilicate group of minerals is

|  |  |
| --- | --- |
| (A) | 1:2 |
| (B) | 1:3 |
| (C) | 4:11 |
| (D) | 2:5 |

33. Which of the following minerals is also called ‘heavy spar’?

|  |  |
| --- | --- |
| (A) | Beryl |
| (B) | Barite |
| (C) | Bornite |
| (D) | Bauxite |

34. Streak is

|  |  |
| --- | --- |
| (A) | colour of the mineral |
| (B) | colour of the powder of a mineral |
| (C) | colour of the rock |
| (D) | pleochoric colour of the mineral |

35. Which of the following minerals shows adamantine lustre?

|  |  |
| --- | --- |
| (A) | Quartz |
| (B) | Diamond |
| (C) | Clay |
| (D) | Asbestos |

36. The normal class of Monoclinic System is

|  |  |
| --- | --- |
| (A) | Barite type |
| (B) | Beryl type |
| (C) | Gypsum type |
| (D) | Aximite type |

37. In Orthorhombic System, the ‘a’ and ‘b’ axes are known respectively as

|  |  |
| --- | --- |
| (A) | Macro axis and Brachy axis |
| (B) | Brachy axis and Macro axis |
| (C) | Macro axis and Clino axis |
| (D) | Brachy axis and Clino axis |

38. The crystal form which does not have either plane or center of symmetry is known as

|  |  |
| --- | --- |
| (A) | Hemihedral |
| (B) | Hemi-morphic |
| (C) | Enantiomorphic |
| (D) | Tetrahedral |

39. The relationship between faces, edges and solid angles in a crystal form is expressed by

|  |  |
| --- | --- |
| (A) | Prowen’s formula |
| (B) | Nicholas’s formula |
| (C) | Euler’s formula |
| (D) | Powell’s formula |

40. Which one of the following is not a strong bond?

|  |  |
| --- | --- |
| (A) | van der Waals bond |
| (B) | Covalent bond |
| (C) | Metallic bond |
| (D) | Ionic bond |

41. Which of the following is an organic gemstone?

|  |  |
| --- | --- |
| (A) | Pearl |
| (B) | Ruby |
| (C) | Diamond |
| (D) | Sapphire |

42. The first appearance of *Homo sapiens* on earth occurred during

|  |  |
| --- | --- |
| (A) | 0.06 Ma |
| (B) | 0.16 Ma |
| (C) | 1.60 Ma |
| (D) | 160 Ma |

43. Isotopes of a given element have

|  |  |
| --- | --- |
| (A) | the same number of protons and the same atomic mass |
| (B) | the same number of protons but different atomic masses |
| (C) | different numbers of protons but the same atomic mass |
| (D) | different numbers of protons and different atomic masses |

44. Which of the following is an endogenic geological process?

|  |  |
| --- | --- |
| (A) | Volcanism |
| (B) | Rivers |
| (C) | Glaciers |
| (D) | Wind |

45. Repetition of beds on a geological map may be due to

|  |  |
| --- | --- |
| (A) | folding |
| (B) | weathering |
| (C) | unconformity |
| (D) | disconformity |

46. Choose the correct statement.

|  |  |
| --- | --- |
| (A) | Anticlinal folds produce inlier and synclinal folds produce outlier |
| (B) | Anticlinal folds produce outlier and synclinal folds produce inlier |
| (C) | Inlier can be produced by both synclinal and anticlinal folds |
| (D) | Outlier can be produced by both synclinal and anticlinal folds |

47. What is a thrust fault?

|  |  |
| --- | --- |
| (A) | A low-angle normal fault |
| (B) | A low-angle reverse fault |
| (C) | A low-angle oblique fault |
| (D) | A low-angle strike-slip fault |

48. The surface that divides a fold into two symmetrical halves is called the

|  |  |
| --- | --- |
| (A) | axial plane |
| (B) | fault |
| (C) | fold axis |
| (D) | limb |

49. The difference between a fault and a joint is that

|  |  |
| --- | --- |
| (A) | faults cut through more than one layer of rock, whereas joints cut through only one layer |
| (B) | faults cut through bedrock, whereas joints cut only the upper sedimentary layers |
| (C) | rocks on either side of a fault have moved, whereas rocks on either side of a joint have remained stationary |
| (D) | faults form straight lines in map view, whereas joints form zigzag lines |

50. In which of the following structures, rock layers/beds dip radially toward a central point?

|  |  |
| --- | --- |
| (A) | An anticline |
| (B) | A basin |
| (C) | A dome |
| (D) | A syncline |

51. A mass of rock exposed at the Earth’s surface is called

|  |  |
| --- | --- |
| (A) | crust |
| (B) | bedrock |
| (C) | outcrop |
| (D) | Schorl rock |

52. What is the scale on a map where 1 centimeter represents 1 kilometer?

|  |  |
| --- | --- |
| (A) | 1:1 |
| (B) | 1:100 |
| (C) | 1:100,000 |
| (D) | 1000:1 |

53. A disconformity is

|  |  |
| --- | --- |
| (A) | an erosional surface between parallel layers of sedimentary rocks |
| (B) | an erosional surface between igneous and sedimentary rocks |
| (C) | a rock unit that does not contain fossils |
| (D) | a rock unit that is different from the units above or below it |

54. The study of ancient life forms preserved in the rock record is referred to as

|  |  |
| --- | --- |
| (A) | stratigraphy |
| (B) | palaeontology |
| (C) | geochronology |
| (D) | zoology |

55. Who proposed the theory of evolution?

|  |  |
| --- | --- |
| (A) | Leonardo da Vinci |
| (B) | William Smith |
| (C) | Charles Darwin |
| (D) | Alfred Wegener |

56. The smallest time division on the geologic time scale is a/an

|  |  |
| --- | --- |
| (A) | era |
| (B) | epoch |
| (C) | eon |
| (D) | period |

57. Abrupt changes in the faunal succession in the rock record represent

|  |  |
| --- | --- |
| (A) | times of sea level fluctuations |
| (B) | decreased sediment deposition |
| (C) | times of erosion |
| (D) | mass extinction events |

58. Human beings (*Homo sapiens*) evolved during which geologic era?

|  |  |
| --- | --- |
| (A) | The Cenozoic |
| (B) | The Mesozoic |
| (C) | The Paleozoic |
| (D) | The Precambrian |

59. Which of the following materials might be dated using carbon-14?

|  |  |
| --- | --- |
| (A) | Granite |
| (B) | Iron ore |
| (C) | Sandstone |
| (D) | Decayed wood in sediments |

60. The half-life of a radioactive isotope is

|  |  |
| --- | --- |
| (A) | half the time it takes all the radioactive atoms to decay |
| (B) | the time it takes for half of the radioactive atoms to decay |
| (C) | half of the the radioactive atom’s “full-life” |
| (D) | the average life-span of a stable atom |

61. Fossils are most common in which of the following rock types?

|  |  |
| --- | --- |
| (A) | Igneous |
| (B) | Metamorphic |
| (C) | Sedimentary |
| (D) | Equally common in all the above |

62. Exfoliation is a ……………. form of weathering.

|  |  |
| --- | --- |
| (A) | physical |
| (B) | chemical |
| (C) | biological |
| (D) | biochemical |

63. Which of the following flora belongs to lower Gondwana?

|  |  |
| --- | --- |
| (A) | Gangamopteris |
| (B) | Cladophlebis |
| (C) | Sphenopteris |
| (D) | Ptilophyllum |

64. Eparchean unconformity separates the geological units of

|  |  |
| --- | --- |
| (A) | Early Archaean to late Archaean |
| (B) | Archaean to Proterozoic |
| (C) | Proterozoic to Paleozoic |
| (D) | Proterozoic to Phanerozoic |

65. By means of two furrows, Trilobites body is divided into

|  |  |
| --- | --- |
| (A) | five parts |
| (B) | four parts |
| (C) | three parts |
| (D) | two parts |

66. Who among the following is a pioneer worked on strata and fossils?

|  |  |
| --- | --- |
| (A) | John Butler |
| (B) | James Hutton |
| (C) | William Smith |
| (D) | Alfred Wegner |

67. ‘Homotaxial’ geological formations are

|  |  |
| --- | --- |
| (A) | equivalent in age and situated at the same location |
| (B) | equivalent in age but situated wide apart |
| (C) | different in age |
| (D) | different in age and situated at same place |

68. Dinosaurs existed largely during

|  |  |
| --- | --- |
| (A) | Palaeozoic era |
| (B) | Mesozoic era |
| (C) | Tertiary era |
| (D) | Proterozoic era |

69. The regional strike of Dharwar group of rocks is

|  |  |
| --- | --- |
| (A) | N-S |
| (B) | NW-SE |
| (C) | E-W |
| (D) | NNW-SSE |

70. Which formation of Sausar group is more important for manganese ore?

|  |  |
| --- | --- |
| (A) | Sitasaong formation |
| (B) | Lohangi formation |
| (C) | Mansar formation |
| (D) | Chorbaoli formation |

71. Great Boundary Fault lies between

|  |  |
| --- | --- |
| (A) | Siwaliks and Muree group of rocks |
| (B) | Upper Vindhyans and Aravallis |
| (C) | Upper Vindhyans and Kurnools |
| (D) | Siwaliks and Tertiaries |

72. In the Cretaceous succession of the Cauvery basin, dinosaurian bones are

characteristically present in the rocks of

|  |  |
| --- | --- |
| (A) | Uttattur group |
| (B) | Tiruchinapalli group |
| (C) | Ariyalur group |
| (D) | Niniyur group |

73. The rocks belonging to Gondwana are of

|  |  |
| --- | --- |
| (A) | Fluviatile origin |
| (B) | Lacustrine origin |
| (C) | Marine origin |
| (D) | Glacial origin |

74. Gastropods exhibit

|  |  |
| --- | --- |
| (A) | bilateral symmetry |
| (B) | radial symmetry |
| (C) | biradial symmetry |
| (D) | asymmetry |

75. The skeleton of an entire coral colony is described as

|  |  |
| --- | --- |
| (A) | Corallum |
| (B) | Columella |
| (C) | Corallite |
| (D) | Coralina |

76. Angadipuram laterite, a notified national geo-heritage museum, is located in which of the following districts of Kerala?

|  |  |
| --- | --- |
| (A) | Malappuram |
| (B) | Kannur |
| (C) | Wayanad |
| (D) | Palakkad |

77. How many major physiographic divisions are there in Kerala?

|  |  |
| --- | --- |
| (A) | 3 |
| (B) | 4 |
| (C) | 5 |
| (D) | 6 |

78. Achankovil shear zone is located in which of the following southern states of India?

|  |  |
| --- | --- |
| (A) | Karnataka |
| (B) | Kerala |
| (C) | Goa |
| (D) | Andhra Pradesh |

79. Shahabad limestone belongs to

|  |  |
| --- | --- |
| (A) | Penganga group |
| (B) | Sullavai group |
| (C) | Bhima group |
| (D) | Badami group |

80. The *Foraminifers* belong to the class

|  |  |
| --- | --- |
| (A) | Granuloreticulosea |
| (B) | Sporozoa |
| (C) | Flagelleta |
| (D) | Mastigophora |

81. To which modern mammal, the fossil ‘Eohippus’ is ancestral?

|  |  |
| --- | --- |
| (A) | Elephant |
| (B) | Horse |
| (C) | Hippopotamus |
| (D) | Giraffe |

82. Vesicular structures are commonly found in

|  |  |
| --- | --- |
| (A) | Basalts |
| (B) | Granites |
| (C) | Pegmatites |
| (D) | Lamprophyres |

83. Which of the following is the most common plagioclase feldspar in gabbro?

|  |  |
| --- | --- |
| (A) | Labradorite |
| (B) | Albite |
| (C) | Oligoclase |
| (D) | Andesine |

84. Which of the following minerals is rarely found in felsic igneous rocks?

|  |  |
| --- | --- |
| (A) | Olivine |
| (B) | Orthoclase feldspar |
| (C) | Plagioclase feldspar |
| (D) | Quartz |

85. In an igneous rock, large crystals are enclosed in a matrix of smaller mineral grains. Then the rock is said to exhibit

|  |  |
| --- | --- |
| (A) | porphyritic texture |
| (B) | poikilitic texture |
| (C) | ophitic texture |
| (D) | variolitic texture |

86. Which of the following is a concordant intrusive body?

|  |  |
| --- | --- |
| (A) | Dike |
| (B) | Pluton |
| (C) | Sill |
| (D) | Stock |

87. Choose the odd one out.

|  |  |
| --- | --- |
| (A) | Rhyolite |
| (B) | Basalt |
| (C) | Granite |
| (D) | Andesite |

88. Mushroom shaped concordant igneous body is called

|  |  |
| --- | --- |
| (A) | Sill |
| (B) | Lopolith |
| (C) | Laccolith |
| (D) | Pacholith |

89. Which one of the following belongs to volcanic group?

|  |  |
| --- | --- |
| (A) | Dunite |
| (B) | Gabbro |
| (C) | Dolerite |
| (D) | Basalt |

90. For the occurrence of which mineral, the place Lapsa Baru is famous?

|  |  |
| --- | --- |
| (A) | Bauxite |
| (B) | Andalusite |
| (C) | Sillimanite |
| (D) | Kyanite |

91. Which of the following feldspathoid is most commonly found in feldspathoidal syenites?

|  |  |
| --- | --- |
| (A) | Leucite |
| (B) | Nepheline |
| (C) | Sodalite |
| (D) | Cancrinite |

92. Quartz is a diagnostic mineral of

|  |  |
| --- | --- |
| (A) | oversaturated rocks |
| (B) | nonsaturated rocks |
| (C) | unsaturated rocks |
| (D) | undersaturated rocks |

93. Which are the principal minerals of eclogite?

|  |  |
| --- | --- |
| (A) | Augite and almandine |
| (B) | Olivine and pyroxene |
| (C) | Omphacite and pyrope |
| (D) | Amphibole and plagioclase |

94. Which of the following is a monomineralic rock consisting almost exclusively of olivine?

|  |  |
| --- | --- |
| (A) | Harzburgite |
| (B) | Dunite |
| (C) | Wehrlite |
| (D) | Picrite |

95. Limestone having fish egg sized, oval shaped grains is called as

|  |  |
| --- | --- |
| (A) | Oolitic limestone |
| (B) | Pisolitic limestone |
| (C) | Shelly limestone |
| (D) | Stromatolitic limestone |

96. Which of the following clastic sedimentary rocks has gravel sized angular fragments?

|  |  |
| --- | --- |
| (A) | Conglomerate |
| (B) | Sandstone |
| (C) | Breccia |
| (D) | Shale |

97. Sandstone is a …………… sedimentary rock.

|  |  |
| --- | --- |
| (A) | Non-clastic |
| (B) | Clastic |
| (C) | Biogenic |
| (D) | Chemical |

98. Mechanical disintegration and chemical decomposition of rocks is called as

|  |  |
| --- | --- |
| (A) | Weathering |
| (B) | Erosion |
| (C) | Metamorphism |
| (D) | Magmatism |

99. Choose the odd one out.

|  |  |
| --- | --- |
| (A) | Ripple marks |
| (B) | Gadded bedding |
| (C) | Cross bedding |
| (D) | Mud cracks |

100. Mechanical sedimentary rocks show

|  |  |
| --- | --- |
| (A) | Clastic texture |
| (B) | Non-clastic texture |
| (C) | Colloform texture |
| (D) | Reaction texture |

101. Arkose is derived from weathering of

|  |  |
| --- | --- |
| (A) | Gabbro |
| (B) | Granite |
| (C) | Ultrabasic rock |
| (D) | Marble |

102. Minerals formed during diagenesis at the site of deposition are known as

|  |  |
| --- | --- |
| (A) | allogenic |
| (B) | authigenic |
| (C) | detrital |
| (D) | non-depositional |

103. Which of the following criteria is used in the IUGS classification of igneous rocks?

|  |  |
| --- | --- |
| (A) | Normative composition |
| (B) | Modal composition |
| (C) | Textures |
| (D) | Chemical composition |

104. A terrigeneous sedimentary rock in which the particles are mostly of silts and clay size is called

|  |  |
| --- | --- |
| (A) | Sandstone |
| (B) | Conglomerate |
| (C) | Shale |
| (D) | Breccia |

105. In sedimentary process, compaction leads to

|  |  |
| --- | --- |
| (A) | decrease in volume and porosity |
| (B) | increase in volume and porosity |
| (C) | increase in volume and decrease in porosity |
| (D) | decrease in volume and increase in porosity |

106. Which of the following minerals precipitates directly from water in evaporite deposits?

|  |  |
| --- | --- |
| (A) | Dolomite |
| (B) | Feldspar |
| (C) | Gypsum |
| (D) | Quartz |

107. The type of weathering whereby rocks may be dissolved is called

|  |  |
| --- | --- |
| (A) | chemical weathering |
| (B) | mechanical weathering |
| (C) | physical weathering |
| (D) | diagenetic weathering |

108. Coal is produced from the diagenesis of

|  |  |
| --- | --- |
| (A) | foraminifera |
| (B) | swamp vegetation |
| (C) | dinosaur bones |
| (D) | algae |

109. Diagenesis is a

|  |  |
| --- | --- |
| (A) | syn-depositional change |
| (B) | post-depositional change |
| (C) | pre-depositional change |
| (D) | coeval change |

110. Levee and Crevasse Splay deposits are

|  |  |
| --- | --- |
| (A) | channel deposits |
| (B) | river bank deposits |
| (C) | channel fill deposits |
| (D) | flood basin deposits |

111. The hydrolysis of orthoclase results in the formation of

|  |  |
| --- | --- |
| (A) | shale |
| (B) | kaolin |
| (C) | lime |
| (D) | hydrochloric acid |

112. Hornfels is the product of …………… metamorphism.

|  |  |
| --- | --- |
| (A) | contact |
| (B) | cataclastic |
| (C) | impact |
| (D) | burial |

113. The headquarters of the Geological Survey of India is situated in

|  |  |
| --- | --- |
| (A) | New Delhi |
| (B) | Mumbai |
| (C) | Kolkata |
| (D) | Hyderabad |

114. Chlorite is the characteristic mineral of …………… facies.

|  |  |
| --- | --- |
| (A) | eclogite |
| (B) | green schist |
| (C) | blue schist |
| (D) | granulite |

115. The term Anatexis denotes

|  |  |
| --- | --- |
| (A) | partial melting of rock |
| (B) | partial recrystallization |
| (C) | complete recrystallization |
| (D) | mixing of two magmas |

116. Glaucophane is the characteristic mineral of …………… facies.

|  |  |
| --- | --- |
| (A) | blue schist |
| (B) | green schist |
| (C) | amphibolite |
| (D) | zeolite |

117. Which unit of geological time is ranging from 66 to 22.03 million years of age?

|  |  |
| --- | --- |
| (A) | Paleocene |
| (B) | Paleogene |
| (C) | Eocene |
| (D) | Tertiary |

118. Which of the following is not a metamorphic rock?

|  |  |
| --- | --- |
| (A) | Schist |
| (B) | Gneiss |
| (C) | Amphibolite |
| (D) | Komatiite |

119. Marble is a metamorphic rock, derived from the metamorphism of

|  |  |
| --- | --- |
| (A) | granite |
| (B) | limestone |
| (C) | sandstone |
| (D) | shale |

120. Which of the following minerals is diagnostic of metamorphism?

|  |  |
| --- | --- |
| (A) | Calcite |
| (B) | Feldspar |
| (C) | Staurolite |
| (D) | Quartz |

121. Mylonites are the products of ………….. metamorphism.

|  |  |
| --- | --- |
| (A) | thermal |
| (B) | dynamothermal |
| (C) | plutonic |
| (D) | cataclastic |

122. Which of the following rocks represents the highest metamorphic grade?

|  |  |
| --- | --- |
| (A) | Charnockite |
| (B) | Phyllite |
| (C) | Schist |
| (D) | Slate |

123. The concept of ‘metamorphic facies’ was proposed by

|  |  |
| --- | --- |
| (A) | Winkler |
| (B) | Niggli |
| (C) | Eskola |
| (D) | Tillay |

124. The parent rock of metamorphic quartzite is

|  |  |
| --- | --- |
| (A) | granite |
| (B) | limestone |
| (C) | shale |
| (D) | sandstone |

125. Which of the following pyroxene is diagnostic of charnockite?

|  |  |
| --- | --- |
| (A) | Augite |
| (B) | Hypersthene |
| (C) | Hedenbergite |
| (D) | Jadite |

126. Identify the correct sequence for the rank of coal from the lowest to highest.

|  |  |
| --- | --- |
| (A) | Bituminous-anthracite-lignite-peat |
| (B) | Peat-lignite-bituminous-anthracite |
| (C) | Peat-lignite-anthracite-bituminous |
| (D) | Anthracite-Bituminous-lignite-peat |

127. Chalcopyrite is an ore mineral of

|  |  |
| --- | --- |
| (A) | iron |
| (B) | lead |
| (C) | copper |
| (D) | alumina |

128. Which of the following is used as a pathfinder element for gold?

|  |  |
| --- | --- |
| (A) | Arsenic |
| (B) | Antimony |
| (C) | Platinum |
| (D) | Mercury |

129. Wayanad is known for ………….. deposit.

|  |  |
| --- | --- |
| (A) | copper |
| (B) | gold |
| (C) | lead |
| (D) | chromite |

130. Ore deposits formed when minerals are concentrated by the mechanical sorting action of river currents are called

|  |  |
| --- | --- |
| (A) | hydrothermal deposits |
| (B) | placer deposits |
| (C) | pegmatites deposits |
| (D) | orthomagmatic deposits |

131. Hematite is an ore mineral of

|  |  |
| --- | --- |
| (A) | iron |
| (B) | manganese |
| (C) | chromite |
| (D) | copper |

132. Which of the following is used as electrical, thermal and sound insulator?

|  |  |
| --- | --- |
| (A) | Graphite |
| (B) | Mica |
| (C) | Asbestos |
| (D) | Clay |

133. Workable quantities of graphite is associated with

|  |  |
| --- | --- |
| (A) | Khondalites |
| (B) | Gondites |
| (C) | Kodurites |
| (D) | Komatities |

134. Malanjkhand is known for ………….. deposits.

|  |  |
| --- | --- |
| (A) | iron |
| (B) | manganese |
| (C) | copper |
| (D) | bauxite |

135. Bauxite deposits are of ………….. origin.

|  |  |
| --- | --- |
| (A) | hydrothermal |
| (B) | residual |
| (C) | early magmatic |
| (D) | late magmatic |

136. Hail is a type of precipitation that consists of

|  |  |
| --- | --- |
| (A) | ice crystal of delicate, feathery structure |
| (B) | hard pellets of ice |
| (C) | droplets of water deposited on objects near the ground |
| (D) | minute crystals of ice deposited on a cold surface |

137. Evaporation of water from plants is called

|  |  |
| --- | --- |
| (A) | radiation |
| (B) | transpiration |
| (C) | evapotranspiration |
| (D) | evaporation |

138. Residual hill in the desert region is known as

|  |  |
| --- | --- |
| (A) | Inselberg |
| (B) | Peneplain |
| (C) | Valley |
| (D) | Playa |

139. Which is the most abundant element in the Earth’s crust?

|  |  |
| --- | --- |
| (A) | Si |
| (B) | O |
| (C) | Fe |
| (D) | Mg |

140. Which one of the following geophysical methods is employed most commonly in oil and natural gas exploration?

|  |  |
| --- | --- |
| (A) | Gravity method |
| (B) | Seismic refraction method |
| (C) | Magnetic method |
| (D) | Seismic reflection method |

141. What is the flow pattern of a river system that resembles the branching of trees?

|  |  |
| --- | --- |
| (A) | Trellis pattern |
| (B) | Dendritic pattern |
| (C) | Radial pattern |
| (D) | Rectangular pattern |

142. Lonar lake represents

|  |  |
| --- | --- |
| (A) | Volcanic crator |
| (B) | Meteoritic impact |
| (C) | Karst lake |
| (D) | Glacial lake |

143. Visible range of EMR is

|  |  |
| --- | --- |
| (A) | 400 - 700 nm |
| (B) | 500 - 850 nm |
| (C) | 300 - 530 nm |
| (D) | 600 – 900 nm |

144. The amount of horizontal displacement in a normal fault is called

|  |  |
| --- | --- |
| (A) | throw |
| (B) | heave |
| (C) | tear |
| (D) | strike |

145. A level or horizontal tunnel made from the hill side to meet the ore body is called

|  |  |
| --- | --- |
| (A) | adit |
| (B) | shaft |
| (C) | winze |
| (D) | pit |

146. Brass is an alloy of

|  |  |
| --- | --- |
| (A) | copper and zinc |
| (B) | copper and gold |
| (C) | lead and zinc |
| (D) | iron and manganese |

147. Which of the following metals is recovered mainly as a byproduct in India?

|  |  |
| --- | --- |
| (A) | Iron |
| (B) | Silver |
| (C) | Copper |
| (D) | Lead |

148. Galena is sulphide of

|  |  |
| --- | --- |
| (A) | Pb |
| (B) | Zn |
| (C) | Cu |
| (D) | Fe |

149. EEZ stands for

|  |  |
| --- | --- |
| (A) | Exclusive Economic Zone |
| (B) | Earnest Economic Zone |
| (C) | Earning Economic Zone |
| (D) | Electronic and Electrical Zone |

150. Grade of the ore below which the mining is not economical is called

|  |  |
| --- | --- |
| (A) | average |
| (B) | cut-off |
| (C) | mill |
| (D) | run of mine |

