1. In which of the following environments would you expect to find symmetrical ripples?
    a. alluvial
    b. beach
    c. deep-sea
    d. desert

2. Which one of the following planets has the highest bulk density?
    a. Jupiter
    b. Venus
    c. Saturn
    d. Mars

3. When the wind is deflected due to the rotation of the Earth, it is called as:
    a. geostrophic wind
    b. polar wind
    c. westerlies
    d. trade winds

4. The branch of geology which deals with the morphology, classification, mechanism and causes of development of rock structures is called as _____
    a. Geomorphology
    b. Structural geology
    c. Lithology
    d. Petrology

5. Most widespread rock on earth is _____
    a. Igneous rock
    b. Metamorphic rock
    c. Sedimentary rock
    d. All are in equal quantities

6. What is the unit of runoff _____?
    a. Day-sec meter
    b. m^2/s
    c. mm/S
    d. Ns/m^2

7. Mid-Oceanic ridges mark _____ plate margins and can be traced by belts of _____focus earthquakes.
    a. constructive, shallow
    b. destructive, shallow
    c. constructive, deep
    d. destructive, deep

8. Which of the following is the weakest bond?
    a. Ionic Bond
    b. Covalent Bond
    c. Metallic Bond
    d. Van der Waal

9. Where is the catchment area situated with respect to a dam?
    a. Behind the dam
    b. Front of dam
    c. Right beneath the dam
    d. Opposite to the dam head

10. Residual hill in the desert region is known as :

a. Inlier   b. Inselberg
c. Playa   d. Pediment

11. Which of the following precious mineral pair has same composition?
     a. Sapphire – Agate   b. Ruby – Opal
     c. Sapphire – Agate   d. Ruby – Agate

12. Which of the following minerals is not an example of phyllosilicate?
     a. Pyrophyllite   b. Kaolinite
     c. Chlorite   d. Anthophyllite

13. Angle of dip can be measured using _____?
     a. Compass   b. Clinometer
     c. Theodolite   d. Tacheometer

14. As per the latest radiometric dating, what is the age of the earth?
     a. 4 billion years   b. 4.54 billion years
     c. 4.45 billion years   d. 4.64 billion years

15. Which geological period in the age of earth is also known as the Age of Fish?
     a. Orosirian period   b. Ordovician period
     c. Devonian period   d. Ediacaran period

16. Which types of rocks are highly porous?
     a. Igneous   b. Sedimentary
     c. Metamorphic   d. Igneous and metamorphic

17. Which aquifer is called water table aquifer?
     a. Unconfined aquifer   b. Confined aquifer
     c. Ground aquifer   d. Connate aquifer

18. What is 'Metadata' ?
     a. It is 'data about data'   b. it is 'meteorological data
     c. It is 'oceanic data'   d. It is 'contour data'

19. A hyetograph is a graphical representation of
     a. Stream flow to time   b. Rainfall intensity to time
     c. Rainfall depth to time   d. Cumulative rainfall to time

20 A volcano which has stopped eruption over a long period is known as
     a. Active volcano   b. Extinct volcano
     c. Dormant volcano   d. Dead volcano

21. Phonolite is a volcanic equivalent of
     a. Basalt   b. Granite
     c. Nepheline-Syenite   d. Diorite

22. What is the temparature of the inner core of the Earth?
      a.   Approximately 6800 K   b. Approximately 6200 K
      c.   Approximately 5700 K   d. Approximately 4500 K

23. Which of the following is an ore of aluminium
      a. Cryolite   b. Bauxite
      c. Gibbsite   d. All of these

24. What is the term given when some grains are exceptionally large and few are small?
      a. Equigranular   b. Unequigranular
      c. Inequigranular   d. Mixed granular

25. Which of the following is NOT a variety of silica (SiO_2)?
      a. Jasper   b. Coesite
      c. Stishovite   d. Flinkite

26. The Jurassic stratigraphic succession of Kutch is characterized by_____
      a. Cephalopods   b. Trilobites
      c. Brachiopods   d. Graptolites

27. Mantle xenoliths are observed in
      a. Granite   b. Kimberlite
      c. Pegmatite   d. Granulite

28. Which one of the following is NOT an earthquake intensity scale?
      a. Richter Scale   b. JMA Scale
      c. Modified Mercalli Scale   d. Rossi – Forrel Scale

29. The most abundant metal in Earth
      a. Oxygen   b. Aluminium
      c. Nickel   d. Iron

30. Troilite is a mineral with composition
      a. FeS   b. FeMgS
      c. MgS   d. NiS

31. The facies with highest grade of metamorphism?
      a. Granulite   b. Amphibolite
      c. Eclogite   d. Blueschist

32. The vertical component of slip in a fault
      a. Throw   b. Heave
      c. Pitch   d. Plunge

33. A tabular discordant pluton cutting across the country rocks
    a. Sill   b. Dyke
    c. Phacolith   d. Lopolith

34. Supergene enrichment of ore deposits generally refers to?
    a. Primary   b. Secondary
    c. Magmatic   d. Hydrothermal

35. The highest rank of coal?
    a. Cannel   b. Lignite
    c. Bituminous   d. Anthracite

36. The Singareni in Andhra Pradesh is famous for?
    a. Gold mine   b. Copper mine
    c. Coal mine   d. Uranium mine

37. Lahar is a geomorphic feature associated with_____
    a. Wind activity   b. Glacier activity
    c. Stream activity   d. Volcanic activity

38. Find the wrong combination
    a. Kaolinite - Cement   b. Rutile - Pigment
    c. Serpentine – Abrasive   d. Graphite – Lubricant

39. The underground water within the zone of aeration is termed as
    a. Phreatic water   b. Vadose Water
    c. Connate water   d. Groundwater

40. The size of pebble is
    a. 1 - 2mm   b. 0 - 4mm
    c. 4 - 64mm   d. 2 - 4mm

41. Dunes oriented parallel to the direction of wind
    a. Longitudinal dunes   b. Transverse dunes
    c. Barchans   d. Seif dunes

42. The Indian regional satellite for navigation is known as ---------------.
    a. GLONASS   b. INSS
    c. IRNSS   d. INGAGAN

43. Most atmospheric ozone is concentrated in ---------------- layer.
    a. Stratosphere   b. Thermosphere
    c. Ionosphere   d. Troposphere

44. The most resistant mineral in sedimentary environment is ----------------.
- a. Feldspar
- b. Quartz
- c. Olivine
- d. Biotite

45. . The altitudinal distance of a geostationary satellite from the earth is about ---------------
- a. 900Km
- b. 3000Km
- c. 11,000Km
- d. 36,000Km

46. Fossils of burrows and footprints are known as
- a. coprolites
- b. trace fossils
- c. body fossils
- d. pseudofossils

47. Polymorphic minerals have
- a. different crystal forms and identical composition
- b. different crystal forms and different compositions
- c. identical crystal form and different compositions
- d. identical crystal form and identical composition

48. Match the Precambrian lithounits in Group I with corresponding cratons in Group II.

	Group I		Group II
P	Kolhan Group	1	Aravalli
Q	Debari Group	2	Bastar
R	Bababudan Group	3	Singhbhum
S	Sukma Group	4	Dharwar

- a. P-2 Q-4 R-1 S-3
- b. P-3 Q-4 R-1 S-2
- c. P-3 Q-1 R-4 S-2
- d. P-2 Q-1 R-4 S-3

49. Horst and graben structures are typically formed by
- a. normal faulting
- b. reverse faulting
- c. thrust faulting
- d. strike-slip faulting

50. The removal of rock debris by wind is called --------------.
- a. Attrition
- b. Ablation
- c. Saltation
- d. Abrasion

51. The most common type of coiling in cephalopoda is ----------------.
- a. Dextral
- b. Discoidal
- c. Sinistral
- d. Asymmetric

52. Perthite is an intergrowth of
    a. Albite in the host Orthoclase
    b. Orthoclase in the host Anorthite
    c. Microcline in the host Orthoclase
    d. None of the above

53. Marl is ------------- type of mudstone.
    a. Siliceous
    b. Ferruginous
    c. Phosphatic
    d. Calcareous

54. The garnet found in Eclogite is --------------.
    a. Almandine
    b. Pyrope
    c. Grossularite
    d. Spessartite

55. Which type of magma is more likely to produce obsidian in a lava flow eruption?
    a. Mafic
    b. Felsic
    c. Ultramafic
    d. Alkaline

56. Which of the drainage pattern resembles the branching of a tree?
    a. Dendritic
    b. Trellis
    c. Radial
    d. Parallel

57. Which of the following is a craton?
    a. Eastern Ghats
    b. Western Ghats
    c. Aravllis
    d. Dharwar

58. Geiger Muller counter is used in_____
    a. Magnetic Prospecting
    b. Gravity prospecting
    c. Electrical prospecting
    d. Radiometric prospecting

59. Which of the following is polymorphous with diamond?
    a. Calcite
    b. Goethite
    c. Graphite
    d. Leucite

60. Back arc basin develops in --------------- margin.
    a. Ocean – Continent Margin
    b. Continent – Continent Margin
    c. Ocean – Ocean Margin
    d. Continent – Continent margin

61. The loess deposits are primarily composed of -----------------.
    a. Sand
    b. Silt
    c. Clay
    d. Sand and Silt

62. The process of post depositional changes in sediments is termed as?
    a. Authigenesis
    b. Chemogenesis

       c. Lithification   d. Diagenesis

63. What is the major source of chloride in sea water?
       a. Terrestrial weathering   b. Volcanism
       c. Mid-ocean hydrothermal   d. Dust deposition
           systems

64. According to geologic time scale, human beings are living in which of following ages?
       a. Holocene Age   b. Pleistocene Epoch
       c. Quaternary Age   d. Meghalayan Age

65. What name did Alfred Wegener give to his theory of horizontal crustal movements?
       a. Plate tectonics   b. Continental drift
       c. Sea floor spreading   d. Rifting continents

66. The deepest trench in the Indian Ocean is?
       a. Java   b. Sunda
       c. Vityaz   d. Vema

67. Which of the following rocks makes most of the upper mantle of the Earth?
       a. Basalt   b. Gabbro
       c. Dunite   d. Peridotite

68. Which one of the following minerals in the Moh's scale of hardness is a silicate?
       a. Apatite   b. Topaz
       c. Fluorite   d. Corundum

69. The highest features on a floodplain are?
       a. Point Bars   b. Meander Scrolls
       c. Natural Levees   d. Back swamps

70. The climatic conditions under which chemical weathering would be more rapid are?
       a. cold and dry   b. hot and dry
       c. moist and cold   d. hot and humid

71. Mass movement on hill slopes can be reduced by?
       a. Overloading   b. Construction of roads
       c. lowering of water table   d. removal of vegetation

72. A soil containing no sign of parent rock fabric is known as?
       a. regolith   b. residual soil
       c. duricrust   d. solum

73. Which one of the following planets spins differently relative to the others?
    a. Earth
    b. Jupiter
    c. Venus
    d. Mars

74. The disappearance of dianosaurs marks the end of which era?

    a. Mesozoic
    b. Cambrian
    c. Cenozoic
    d. Precambrian

75. Cirques are formed by
    a. rivers
    b. glaciers
    c. lakes
    d. oceans

76. The Red fort, in New Delhi is constructed using ………….. rock type
    a. Laterite
    b. syenite
    c. Sandstone
    d. Leptinite

77. The velocity discontinuity between the upper crust and the lower crust is known as
    _____ discontinuity.
    a. Lehmann
    b. Gütenberg
    c. Mohorovičić
    d. Conrad

78. Which one of the following basins is producing petroleum from the coal-rich reservoir
    rocks?
    a. Rajasthan Basin
    b. Cambay Basin
    c. Cauvery Basin
    d. Krishna–Godavari Basin

79. Herringbone structure is generally formed in which of the following environments?
    a. Fluvial
    b. Aeolian
    c. Lacustrine
    d. Tidal

80. The minimum number of satellites connected to a GPS receiver to get a relatively
    accurate location?
    a. 2
    b. 4
    c. 24
    d. 32

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