

GEOLOGY
CBRT FOR THE POST OF ASSISTANT HYDROGEOLOGIST
20.10.2019 (FN)

1.

Which one of the following minerals has highest susceptibility to weathering?

- (a) Olivine
- (b) Pyroxene
- (c) Muscovite
- (d) Quartz

2.

The ridge like deposits of silt and clay along the borders of the flooded rivers after a flood are known as:

- (a) Placer deposit
- (b) Natural levées
- (c) Scree
- (d) Cuesta

3.

Which one of the following is NOT a sink hole?

- (a) Uvala
- (b) Polje
- (c) Solution pan
- (d) Lapies

4.

Which one of the following is NOT related to glaciers?

- (a) Doline
- (b) Firn
- (c) Cirque
- (d) Drumlins

5.

A graph showing percentage of Earth's surface area as a function of elevation or depth relative to sea level is called:

- (a) Hypsometric curve
- (b) Stress curve
- (c) Strain curve
- (d) Creep curve

6.

The process of sinking to maintain isostatic equilibrium during cooling of the lithosphere is called:

- (a) Gravitational subsidence
- (b) Thermal subsidence
- (c) Continental rise
- (d) Extensional collapse

7.

Regions where continental lithosphere is currently undergoing extension or underwent extension in the past are termed as:

- (a) Rifts
- (b) Subduction
- (c) Obduction
- (d) Trench

8.

Which one of the following margins represents plate boundaries?

- (a) Active continental margins
- (b) Passive continental margins
- (c) Active ocean margins
- (d) Passive ocean margins

9.

Which one of the following backarcs is commonly called “Mariana-type backarcs”?

- (a) Extensional backarcs
- (b) Compressional backarcs
- (c) Twisting backarcs
- (d) Couple backarcs

10.

Which one of the following is an ore mineral of silver?

- (a) Arsenopyrite
- (b) Argentite
- (c) Cassiterite
- (d) Cerussite

11.

Which one of the following is a chromium-bearing garnet?

- (a) Grossular
- (b) Uvarovite
- (c) Spessartine
- (d) Pyrope

12.

Which one of the following minerals shows piezoelectric property?

- (a) Garnet
- (b) Apatite
- (c) Quartz
- (d) Orthoclase feldspar

13.

In isometric system, a six faced solid in which each face cuts one axis and is parallel to the other two axes is known as:

- (a) Hexahedron
- (b) Octahedron
- (c) Rhombic dodecahedron
- (d) Tetrahedron

14.

An open form comprising two horizontal faces in normal class of Tetragonal system is termed as:

- (a) Pyramid
- (b) Dome
- (c) Basal Pinacoid
- (d) Prism

15.

Which one of the following is the correct composition of Troctolite?

- (a) Olivine + Plagioclase
- (b) Olivine + Clinopyroxene
- (c) Clinopyroxene + Plagioclase
- (d) Clinopyroxene + Orthopyroxene

16.

The degrees of freedom at peritectic point in binary peritectic system will be:

- (a) Three
- (b) Two
- (c) One
- (d) Zero

17.

Which of the following are the examples of layered mafic intrusion?

1. Bushveld igneous complex
2. Still water complex
3. Skaergard intrusion

Select the correct answer using the code given below:

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

18.

Mineralogical composition of pulaskite rock is:

- (a) Olivine + augite + calc. plagioclase
- (b) Antiperthite + aegirine + nepheline
- (c) Nepheline + plagioclase + quartz
- (d) Hypersthene + diopside + augite

19.

Which one of the following is a diagenetic process?

- (a) Metamorphism
- (b) Dissolution
- (c) Deposition of sediments
- (d) Palingenesis

20.

Which one of the following is a unidirectional paleocurrent indicator?

- (a) Grove casts
- (b) Symmetrical ripples
- (c) Channel and scour margins
- (d) Cross-bedding

21.

Which of the following are the lithologies of deltaic deposits?

- (a) Siltstone, greywacke and claystone
- (b) Conglomerate, sandstone and mudstone
- (c) Shale, clay and limestone
- (d) Limestone, dolomite and shale

22.

Which one of the following is NOT a clastic rock?

- (a) Sandstone
- (b) Shale
- (c) Limestone
- (d) Conglomerate

23.

A geothermometer is based on which one of the following type of reactions?

- (a) Net transfer reaction
- (b) Ion exchange reaction
- (c) Oxidation reaction
- (d) Dehydration reaction

24.

What will be the AKF values of $\text{Fe}_3 \text{Al}_2 \text{Si}_3 \text{O}_{12}$?

- (a) F = 75; A = 0; K = 25
- (b) F = 75; A = 25; K = 0
- (c) A = 75; F = 25; K = 0
- (d) K = 75; F = 25; A = 0

25.

Which one of the following minerals is formed during ultrahigh pressure metamorphism?

- (a) Quartz
- (b) Tridymite
- (c) Coesite
- (d) Labradorite

26.

Which one of the following rocks is the protolith for marble?

- (a) Arenaceous rocks
- (b) Argillaceous rocks
- (c) Mafic rocks
- (d) Calcareous rocks

27.

The smaller folds, which occur on the limbs or hinge of the larger folds, are known as:

- (a) Parasitic folds
- (b) Kink folds
- (c) En echelon folds
- (d) Radial folds

28.

A set of new planar surfaces produced in a rock as a result of deformation is called:

- (a) Foliation
- (b) Bedding plane
- (c) Lineation
- (d) Deformation surface

29.

If the dip of a plane is measured in a vertical plane perpendicular to the strike, it is called:

- (a) True dip
- (b) Apparent dip
- (c) True slope
- (d) Apparent slope

30.

A fault that strikes parallel to the strike of axial plane of the regional fold is known as:

- (a) Longitudinal fault
- (b) Transverse fault
- (c) Dip slip fault
- (d) Diagonal slip fault

31.

A major anticline that is composed of many smaller folds is called:

- (a) Anticlinorium
- (b) Synclinorium
- (c) Antiformal syncline
- (d) Synformal anticline

32.

Which one of the following is the fundamental unit of biostratigraphy?

- (a) Barren zone
- (b) Abundance zone
- (c) Biozone
- (d) Overlap zone

33.

Which one of the following groups contains Sirbu Shale Formation?

- (a) Semri Group
- (b) Kaimur Group
- (c) Rewah Group
- (d) Bhandar Group

34.

Gulcheru quartzites belong to which one of the following groups?

- (a) Papaghani Group
- (b) Cheyair Group
- (c) Nallamalai Group
- (d) Kistna Group

35.

Which one of the following ages is assigned to *Syringothyris* Limestone?

- (a) Ordovician
- (b) Lower Silurian
- (c) Lower Carboniferous
- (d) Lower Permian

36.

Which one of the following formations is correlated to Raniganj Formation in Son and Mahanadi valleys?

- (a) Talchir Formation
- (b) Karharbari Formation
- (c) Himgir Formation
- (d) Maleri Formation

37.

Consider the following statements regarding Gastropods:

1. They are typically benthic, though pelagic forms do occur
2. Forms with a siphonal canal are generally carnivorous
3. Forms in which the shell has an entire aperture are often herbivorous
4. Fresh water gastropods for the most part have thin shells with a thick periostracum

Which of the statements given above are correct?

- (a) 1, 2 and 4 only
- (b) 1 and 4 only
- (c) 1, 2, 3 and 4
- (d) 2, 3 and 4 only

38.

Ammonoids belong to which one of the following geological ranges?

- (a) Cambrian–Jurassic
- (b) Ordovician–Triassic
- (c) Silurian–Jurassic
- (d) Devonian–Cretaceous

39.

The entire skeleton of a solitary or of a colonial coral is known as:

- (a) Corallum
- (b) Corallite
- (c) Columella
- (d) Coenenchyme

40.

The triangular gap along the hinge line of the pedicle valve of brachiopods, through which the pedicle emerges, is known as:

- (a) Deltidium
- (b) Delthyrium
- (c) Brachidium
- (d) Brachiophore

41.

The moulting of the exoskeleton in arthropods is known as:

- (a) Ecdysis
- (b) Metamorphosis
- (c) Integument
- (d) Exuvia

42.

Which one of the following is a phosphatic microfossil?

- (a) Foraminifera
- (b) Radiolaria
- (c) Cocolithophore
- (d) Conodonts

43.

Which one of the following is NOT a seed fern?

- (a) *Pecopteris*
- (b) *Neuropteris*
- (c) *Alethopteris*
- (d) *Glossopteris*

44.

The capability of the sensor to discriminate the smallest object on the ground of different sizes, usually specified in linear dimension, is known as:

- (a) Spatial resolution
- (b) Spectral resolution
- (c) Radiometric resolution
- (d) Temporal resolution

45.

Which one of the following is NOT a spatial data?

- (a) Location of the city
- (b) Location of the river
- (c) Temperature of the city
- (d) Location of the hill

46.

Which one of the following is NOT related to topology?

- (a) Adjacency
- (b) Containment
- (c) Connectivity
- (d) Attribute data

47.

Which one of the following non-spatial scales would you select for recording of snow-depth in GIS database?

- (a) Nominal scale
- (b) Ratio scale
- (c) Ordinal scale
- (d) Interval scale

48.

What is the spatial resolution of LISS III camera of IRS 1C?

- (a) 72.0 m
- (b) 36.0 m
- (c) 23.5 m
- (d) 6.0 m

49.

Consider the following statements regarding conservative ions:

1. Conservative ions are those that will undergo association and dissociation reactions over the normal range of pH of natural water
2. Conservative ions are those whose concentrations are not affected by changes in pH, temperature or pressure, assuming no precipitation or dissolution
3. Na^+ , K^+ , Ca^{2+} , Mg^{2+} , Cl^- , SO_4^{2-} and NO_3^- are not the conservative ions of natural water

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 and 3
- (c) 2 only
- (d) 1 and 3

50.

The majority of Earth's Fe and Ni are found in:

- (a) Lower crust
- (b) Upper crust
- (c) Upper mantle
- (d) Inner core

51.

Consider the following statements regarding continental crust and oceanic crust:

1. Continental crust is less dense and thicker than oceanic crust
2. Continental crust is poor in Iron and Magnesium
3. Continental crust is rich in Iron and Magnesium
4. Continental crust is more dense and thinner than oceanic crust

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 1 and 2
- (c) 2 and 4
- (d) 1 and 3

52.

Mercury is the path finder element for:

- (a) Copper deposits
- (b) Lead-Zinc-Silver deposits
- (c) Chromite deposits
- (d) Uranium deposits

53.

Gossan is used to identify a buried:

- (a) Sulphide deposit of epigenetic origin
- (b) Auriferous vein
- (c) Copper porphyry deposit
- (d) Multimineral Zinc-Silver deposit

54.

Radon-222 gas is used in prospecting for:

- (a) Uranium
- (b) Thorium
- (c) Silver
- (d) Antimony

55.

The most important hydrochemical indicator of petroleum is:

- (a) Napthenates
- (b) Ethanol
- (c) Humic acids
- (d) Brines

56.

Which one of the following is NOT a manganese mineral?

- (a) Pyrolusite
- (b) Sitaparite
- (c) Vredenburgite
- (d) Smithsonite

57.

Which one of the following deposits does NOT occur in Archaean greenstone belts?

- (a) Gold
- (b) Platinum
- (c) Aluminum
- (d) Chromite

58.

Which one of the following deposits is formed at oceanic ridges?

- (a) Sulphide
- (b) Carbonate
- (c) Oxide
- (d) Phosphate

59.

The Khetri belt of Rajasthan is famous for:

- (a) Gold
- (b) Iron
- (c) Copper
- (d) Coal

60.

Which type of tin mineralization occurs in Tosham hills of Haryana?

- (a) Cassiterite-Sulphide type
- (b) Cassiterite-Quartz and disseminated type
- (c) Greisen type
- (d) Pegmatite type

61.

Which one of the following ore deposits having ferruginous character occurs in Kalahandi area of Odisha?

- (a) Bauxite
- (b) Copper
- (c) Galena
- (d) Diamond

62.

The method, which involves the forceful injection of slurry of water and cement into the fractured rocks of the site, is known as:

- (a) Back filling
- (b) Lining
- (c) Cement stabilization
- (d) Grouting

63.

The walls constructed on both sides of the crest of a dam are known as:

- (a) Retaining walls
- (b) Key walls
- (c) Safety walls
- (d) Parapet walls

64.

Rutting is a phenomenon associated with:

- (a) Bridges
- (b) Pavements
- (c) Dams
- (d) Tunnels

65.

Which one of the following rock types has highest compressive strength?

- (a) Diorite
- (b) Marble
- (c) Sandstone
- (d) Basalt

66.

Which one of the following tests is used to know the durability of a building stone?

- (a) Jack test
- (b) Smith's test
- (c) Los Angeles' test
- (d) Dorry test

67.

Which one of the following arrangements made in a dam near the top to let off excess water of the reservoir to the downstream side?

- (a) Diversion tunnel
- (b) Sluice
- (c) Cut-off wall
- (d) Spillway

68.

Which one of the following rock types at the reservoir site is most suitable for its foundation?

- (a) Schists
- (b) Laterites
- (c) Marbles
- (d) Quartzites

69.

Which type of the land cover will provide the highest degree of recharge in a watershed?

- (a) Pasture of grazing land
- (b) Forest with thin carpet of litter
- (c) Forest with thick carpet of litter
- (d) Cropland

70.

Which one of the following is the correct order of abundance of different elements in weight percentage in bulk Earth?

- (a) O>Si>Fe>S>Ca>Al>Mg>Ni
- (b) Fe>O>Si>Mg>S>Ni>Ca>Al
- (c) Fe>Si>O>Mg>Ni>S>Ca>Al
- (d) Si>Fe>O>Ni>S>Ca>Al>Mg

71.

Which one of the following minerals is called fool's gold?

- (a) Hematite
- (b) Magnetite
- (c) Pyrite
- (d) Halite

72.

The ability of rocks or sediments to contain water is determined by its:

- (a) Permeability
- (b) Porosity
- (c) Viscosity
- (d) Transmissivity

73.

A geological formation that holds enough water and transmits it rapidly enough to be useful as a source of ground water is known as:

- (a) Aquifer
- (b) Aquitard
- (c) Aquifuse
- (d) Aquiclude

74.

Which seismic wave is responsible for maximum shaking during an earthquake?

- (a) P wave
- (b) S wave
- (c) Rayleigh wave
- (d) Love wave

75.

Shallow foundations are sensitive to the vertical displacement component, especially if the structure is:

- (a) Heavy and water table is shallow
- (b) Light and water table is shallow
- (c) Heavy and water table is deep
- (d) Light and water table is deep

76.

Bhuj earthquake of 2001 belonged to which one of the following categories?

- (a) Deep focus
- (b) Shallow focus
- (c) Intermediate focus
- (d) In between deep and intermediate focus

77.

The calcareous and siliceous oozes are:

- (a) Neritic deposits
- (b) Littoral deposits
- (c) Pelagic deposits
- (d) Terrigenous deposits

78.

Which type of clay is found in the deepest parts of the ocean and is also abundant near the volcanoes?

- (a) Black clay
- (b) Brown clay
- (c) Red clay
- (d) Green clay

79.

Ocean tides are generated due to:

1. Gravitational attraction of the Moon
2. Gravitational attraction of the Sun
3. Declination of the Moon and the Sun
4. Gravitational force of the Earth

Select the correct answer using the code given below:

- (a) 1, 2 and 4
- (b) 2, 3 and 4
- (c) 1, 2 and 3
- (d) 1, 3 and 4

80.

Which one of the following satellites can be used for monitoring changes in ground water storage?

- (a) LANDSAT TM
- (b) IRS LISS III
- (c) QuickBird
- (d) GRACE

81.

How much water the ice caps and glaciers contribute in terms of percentage at or near the Earth's surface?

- (a) 2.05 %
- (b) 3.05 %
- (c) 1.78%
- (d) 1.23 %

82.

What type of well can be constructed for small domestic water supplies in clayey-sandy soil region?

- (a) Deep and small diameter well
- (b) Shallow and large diameter well
- (c) Shallow and small diameter well
- (d) Deep and medium diameter well

83.

What is the nature of water table contour map in the region of groundwater recharge?

- (a) Convex water table contours
- (b) Concave water table contours
- (c) Closely packed water table contours
- (d) Sparsely packed water table contours

84.

Clay lenses, occurring in alluvial formations which can produce water table conditions in the unsaturated zone of the main unconfined aquifer are known as:

- (a) Perched Aquifer
- (b) Leaky Aquifer
- (c) Unconfined Aquifer
- (d) Composite Aquifer

85.

What is the name of the wide belt (5–15 Km) along the northern margin of Indo-Gangetic-Brahmaputra plain, where major artesian aquifers give rise to free flow in wells?

- (a) Foredeep basin
- (b) Tarai belt
- (c) Bhabar belt
- (d) Siwalik belt

86.

Which mineral provides highest swelling property to the soil?

- (a) Kaolinite
- (b) Montmorillonite
- (c) Ilmenite
- (d) Quartz

87.

What happens to soil quality if there is high sodium ion concentration in irrigation water?

- (a) Increase in permeability of soil
- (b) Decrease in permeability of soil
- (c) Compaction of the soil
- (d) Change in grain size of soil

88.

If the concentration of Ca^{2+} in water is 130 mg/L, what will be the concentration of Ca^{2+} in meq/L?

[Atomic weight of Ca = 40.08]

- (a) 6.48 meq/L
- (b) 6.80 meq/L
- (c) 13.00 meq/L
- (d) 3.24 meq/L

89.

Which one of the following is the correct order of cation exchangeability for common ion in groundwater?

- (a) $K^+ > Mg^{2+} > Ca^{2+} > Na^+$
- (b) $Ca^{2+} > Mg^{2+} > K^+ > Na^+$
- (c) $Na^+ > K^+ > Ca^{2+} > Mg^{2+}$
- (d) $Ca^{2+} > K^+ > Mg^{2+} > Na^+$

90.

According to Indian Standard, what is the maximum permissible limit of F^- (Fluoride) in groundwater for drinking purpose?

- (a) 1.0 mg/L
- (b) 1.3 mg/L
- (c) 1.5 mg/L
- (d) 2.5 mg/L

91.

Which one of the following will exhibit the maximum diurnal fluctuation in groundwater table due to evapotranspiration?

- (a) Bare soil
- (b) Shallow rooted vegetation
- (c) Deep rooted vegetation
- (d) Exposed bed rock within soil

92.

Which one of the following is the characteristic of piezometric surface of flowing well?

- (a) Piezometric surface lies above the ground surface
- (b) Piezometric surface lies below the ground surface
- (c) Piezometric surface lies below the confined aquifer
- (d) Piezometric surface lies below the mean sea level

93.

In which type of unconsolidated sediments, the capillary rise of ground water is the highest?

- (a) Fine gravel
- (b) Medium sand
- (c) Coarse sand
- (d) Silt

94.

A soil sample has d_{60} and d_{10} values of 1.9 mm and 0.2 mm respectively. The uniformity coefficient of the soil will be:

- (a) 9.5
- (b) 0.1
- (c) 0.38
- (d) 0.15

95.

Which one of the following particles contributes to the greatest amount of surface area in unconsolidated formations?

- (a) Gravel
- (b) Coarse sand
- (c) Silt
- (d) Clay

96.

In Intermediate Vadose zone, water moves:

- (a) under the influence of gravity
- (b) under the influence of groundwater head difference
- (c) under the influence of atmospheric pressure
- (d) under the influence of osmotic pressure

97.

Which one of the following formations shows the maximum anisotropism and heterogeneity in terms of its hydrogeological properties?

- (a) Crystalline rock formation
- (b) Alluvial formation
- (c) Lacustrine formation
- (d) Eolian formation

98.

A saturated but poorly permeable stratum that impedes groundwater movement and does not yield water freely to the wells is known as:

- (a) Aquifuge
- (b) Aquiclude
- (c) Aquitard
- (d) Aquifer

99.

What type of information can be provided by Radar imagery of a region?

- (a) Color of the soil
- (b) Presence of moisture at shallow depth
- (c) Void ratio of the soil
- (d) Texture of the soil

100.

The recharge of the groundwater can be improved by stream channel through:

- (a) Proper lining at the bottom of channel
- (b) Narrowing of the channel
- (c) Construction of low check dam and dikes across the stream at wide stretch of a channel
- (d) Channel bank development

101.

The combination of specific yield and specific retention is known as:

- (a) Transmissivity
- (b) Storativity
- (c) Porosity
- (d) Hydraulic conductivity

102.

The topographic area that collects and discharges surface stream flow through one outlet or mouth is generally referred to as:

- 1. Catchments
- 2. Drainage basins
- 3. Watersheds

Select the correct answer using the code given below:

- (a) 1 and 2 only
- (b) 1 and 3 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

103.

Which of the following groundwater management models is used for water allocation plans involving economic management objectives subject to institutional policies as constraints in addition to hydraulic management constraints?

- (a) Embedding approach
- (b) Groundwater policy evaluation
- (c) Groundwater policy evaluation and allocation models
- (d) Optimal allocation approach

104.

Which of the following statements about juvenile water is/are correct?

- 1. It is surface water that was trapped by soil
- 2. It is subsurface water that was derived from the interior of the Earth
- 3. It is surface water that was trapped by rock formation
- 4. It is subsurface water that was trapped by soil and rock formation

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) 1 and 2
- (d) 3 and 4

105.

Which one of the following methods is NOT used for measurement of evapotranspiration?

- (a) Priestley-Taylor method
- (b) Blaney-Criddle method
- (c) Theissen method
- (d) Adjusted Pan method

106.

The incidence of infantile “Methemoglobinemia” is caused due to intake of water having high concentration of:

- (a) Boron
- (b) Fluoride
- (c) Nitrate
- (d) Manganese

107.

The ratio of transmissivity to the coefficient of storage (T/S) of an aquifer is termed as:

- (a) Leakage factor
- (b) Hydraulic resistance
- (c) Hydraulic diffusivity
- (d) Boulton delay index

108.

Geysers and fumeroles are manifestations of hydrothermal phenomena and are nearly always found in:

- (a) regions of seismic activity
- (b) regions of volcanicity
- (c) regions of landslides
- (d) regions of plate collisions

109.

Consider the following statements regarding hydrologic properties of sedimentary rocks:

1. It depends largely on the size, shape and arrangement of the grains
2. It depends largely on the degree to which the rock particles are sorted
3. It depends largely on hydraulic resistance

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) 1, 2 and 3
- (d) 1 and 2 only

110.

In mining operations, production shafts are used for carrying:

- (a) Cables
- (b) Minerals
- (c) Men
- (d) Equipment

111.

In a working Mine, stope is used for:

- (a) removing the Ore
- (b) storing the Ore
- (c) looking down to explore the Mine
- (d) movement inside a Mine

112.

Rocker is used in which type of mining?

- (a) Manual mining
- (b) Underground mining
- (c) Lead-Zinc mining
- (d) Block caving mining

113.

Lower Gondwana coal seams belong to which one of the following ages?

- (a) Permo-Triassic
- (b) Late Carboniferous-Permian
- (c) Triassic-Jurassic
- (d) Ordovician-Silurian

114.

The organic compounds in sediments, rocks and crude oil whose carbon structures can be traced back to a living organism are called as:

- (a) Biomarkers
- (b) Fossil markers
- (c) Trace markers
- (d) Index markers

115.

Which one of the following physical properties is NOT related to mineral asbestos?

- (a) Readily separable into fine filaments
- (b) High tensile strength
- (c) Enough flexibility
- (d) High degree of combustibility

116.

The clay used in petroleum refining is:

- (a) Kaolin
- (b) Ball clay
- (c) Flint clay
- (d) Fuller's earth

117.

In the electrical resistivity method, if a material of resistance R has a cross-sectional area A and length L , then its resistivity (ρ) can be expressed as:

- (a) $\frac{1}{\rho} = \frac{RA}{L}$
- (b) $\rho = \frac{RA}{L}$
- (c) $\rho = \frac{L}{RA}$
- (d) $\frac{1}{\rho} = \frac{L}{RA}$

118.

The method of prospecting which is based on anomaly in chemical constituents of natural water is termed as:

- (a) Hydrological prospecting
- (b) Mineralogical prospecting
- (c) Chemical prospecting
- (d) Hydrogeochemical prospecting

119.

In which one of the following geophysical methods, the potential electrodes are located at one-third points between the current electrodes?

- (a) Schlumberger arrangement
- (b) Wenner arrangement
- (c) Gravity method
- (d) Magnetic method

120.

Consider the following statements about well logging:

1. Clayey formations display lower resistivities than permeable alluvial aquifers
2. Clay minerals do not conduct electrical current through their matrix
3. In porous formations, water content and quality factors control their resistivity value

Which of the statements given above is/are correct?

- (a) 1 and 3
- (b) 1 only
- (c) 1 and 2
- (d) 3 only