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ROLL No.

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QN. BOOKLET No.

012

TEST FOR POST GRADUATE PROGRAMMES

GEOLOGY

Time: 2 Hours

Maximum Marks: 450

INSTRUCTIONS TO CANDIDATES

1. You are provided with a Question Booklet and an Optical Mark Reader (OMR) Answer Sheet to mark your responses. Do not soil your OMR Sheet. Read carefully all the instructions given on the OMR Sheet.
2. Write your Roll Number in the space provided on the top of this page.
3. Also write your Roll Number, Test Code, Test Centre Code, Test Centre Name, Test Subject and the date and time of the examination in the columns provided for the same on the Answer Sheet. Darken the appropriate bubbles with HB pencil.
4. The paper consists of 150 objective type questions. All questions carry equal marks.
5. Each Question has four alternative responses marked A, B, C and D and you have to darken the bubble fully by HB pencil corresponding to the correct response as indicated in the example shown on the Answer Sheet. Also write the alphabet of your response with ball pen in the starred column against attempted questions and put an 'x' mark by ball pen in the starred column against unattempted questions as given in the example in the OMR Sheet.
6. Each correct answer carries 3 marks and each wrong answer carries 1 minus mark.
7. Please do your rough work only on the space provided for it at the end of this question booklet.
8. You should return the Answer Sheet to the Invigilator before you leave the examination hall. However Question Booklet may be retained with the Candidate.
9. Every precaution has been taken to avoid errors in the Question Booklet. In the event of such unforeseen happenings, suitable remedial measures will be taken at the time of evaluation.
10. Please feel comfortable and relaxed. You can do better in this test in a tension-free disposition.

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SEAL



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1. Which one of the following is correctly matched?
(A) Potassium - Orthoclase
(B) Magnesium - Calcite
(C) Calcium - Barite
(D) Iron - Magnesite
2. Arrange the four cations of groundwater in decreasing order of abundance.
(A) potassium, magnesium, calcium, sodium
(B) sodium, calcium, magnesium, potassium
(C) magnesium, sodium, calcium, potassium
(D) calcium, sodium, potassium, magnesium
3. The muscovite mica deposit of Nellore occurs in which one of the following host rocks?
(A) Schist
(B) Gneiss
(C) Granite
(D) Pegmatite
4. Baryte deposits occur in
(A) Gulcheru quartzites
(B) Vempalle limestones
(C) Tadpatri shales
(D) Kolamnala shales
5. The Cuddapah Supergroup of rocks are overlain by
(A) Gwalior group
(B) Kurnool group
(C) Kaladgi group
(D) Pakhal group
6. The age of Cypridea is
(A) Miocene
(B) Pliocene
(C) Oligocene
(D) Eocene
7. If biotite is present in the rock, there is an increase in which one of the following minerals in CIPW norm?
(A) Potash feldspar
(B) Albite
(C) Quartz
(D) Hypersthene.



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8. In general, which one of the following oxides shows positive correlation with SiO_2 in rock suites ?
- (A) MgO (B) CaO
(C) FeO (D) Al_2O_3
9. The dolerite dyke intruding granitic country rock is richer in
- (A) Cr and Ni (B) K and Ba
(C) Cu and Zn (D) Zr and Sr
10. Fractional crystallization takes place when the
- (A) rate of cooling is fast (B) rate of cooling is slow
(C) pressure is high (D) volatiles are in excess
11. Liquid immiscibility is found to occur in the system
- (A) Albite – Anorthite – Diopside
(B) Forsterite – Leucite – Silica
(C) Albite – Diopside – Silica
(D) Fayalite – Leucite – Silica
12. Under very high pressure, basaltic magma crystallises to form
- (A) Feldspar and Clinopyroxene (B) Clinopyroxene and Garnet
(C) Orthopyroxene and Plagioclase (D) Olivine and Calcic plagioclase
13. Two-fold classification of Gondwana was proposed by
- (A) Pascoe (B) C. S. Fox
(C) Medlicott (D) Feistmantle
14. Which one of the following is correctly matched ?
- (A) Anorthosite - Sittampundi (B) Syenite - St. Thomas Mount
(C) Carbonatite - Chalk hills (D) Dunite - Sivamalai
15. The rock types which are richer in olivine-plagioclase are known as
- (A) Anorthositic gabbro (B) Gabbroic Anorthosite
(C) Gabbro (D) Troctolite

16. Olivine-free basanite is called as
- (A) Leucitite (B) Nephelinite
(C) Phonolite (D) Tephrite
17. Which of the following is a metamorphic rock?
- (A) Granitoid (B) Granophyre
(C) Granulite (D) Graphic granite
18. A volcanic rock equivalent to Monzonite is called
- (A) Andesite (B) Dacite
(C) Latite (D) Trachyte
19. Which type of magma is more likely to produce obsidian in a lava flow eruption?
- (A) Alkaline (B) Felsic
(C) Mafic (D) Ultramafic
20. The number of classes in hexagonal division of hexagonal system is
- (A) 5 (B) 7
(C) 6 (D) 8
21. In X-ray Diffractometer, which one of the following elements is not used as anode?
- (A) Molybdenum (B) Copper
(C) Iron (D) Tungsten
22. The faces of pyramid in Orthorhombic system is a/an
- (A) equilateral triangle (B) right angled triangle
(C) isosceles triangle (D) scalene triangle
23. Which one of the following minerals does not crystallise in Tetragonal System?
- (A) Vesuvianite (B) Apophyllite
(C) Octahedrite (D) Hematite



24. Where do you find pillow lavas?
- (A) Kolar schist belt
 - (B) Chitradurga schist belt
 - (C) Nellore schist belt
 - (D) Sargur schist belt
25. Which of the following is a phosphate mineral?
- (A) Ilmenite
 - (B) Rutile
 - (C) Sillimanite
 - (D) Monazite
26. Strike fault that is parallel to the bedding is known as
- (A) parallel fault
 - (B) bedding fault
 - (C) longitudinal fault
 - (D) enechelon fault
27. A surface of erosion which is covered by residual soil and lacks sharp contact with sub-surface rock is called
- (A) intrusive contact
 - (B) non-conformity
 - (C) peneplanation
 - (D) blended unconformity
28. Relatively short faults that overlap each other are called
- (A) radial faults
 - (B) enechelon faults
 - (C) peripheral faults
 - (D) overlap faults
29. Which of the following drainage patterns resembles the branching of a tree?
- (A) Trellis
 - (B) Dendritic
 - (C) Radial
 - (D) Parallel
30. In biaxial minerals the plane X-Z is called
- (A) acute bisectrix
 - (B) optic axis
 - (C) optic axial plane
 - (D) optic normal
31. Jelly-type or Abbe-type refractometer is used for determination of refractive index of
- (A) all minerals
 - (B) biaxial minerals
 - (C) isotropic minerals
 - (D) uniaxial minerals



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32. The system that does not belong to Biaxial group is
- (A) hexagonal (B) monoclinic
(C) orthorhombic (D) triclinic
33. Paradoxides is an index fossil for
- (A) lower Cambrian (B) middle Cambrian
(C) upper Cambrian (D) lower Ordovician
34. Earthquake generated due to sudden Earth movements along faults are known as
- (A) deep earthquake (B) shallow earthquake
(C) tectonic earthquake (D) volcanic earthquake
35. Earthquake intensity scale devised on the basis of damage and loss to the structure is called,
- (A) Richter scale (B) Mercalli scale
(C) Wegner scale (D) Magnitude scale
36. Vesicular fragments of lava crust with sponge like texture are called
- (A) Scoria (B) Lapilli
(C) Tephra (D) Volcanic tuff.
37. Which among the following sequences of planets is with increasing distance from the Sun?
- (A) Neptune – Earth – Uranus – Jupiter
(B) Earth – Neptune – Saturn – Uranus
(C) Earth – Jupiter – Uranus – Neptune
(D) Uranus – Saturn – Earth – Jupiter
38. Which one of the following minerals is named after an island in the Red Sea ?
- (A) Albite (B) Beryl
(C) Labradorite (D) Topaz
39. Black Tourmaline is called
- (A) Lawsonite (B) Schorl
(C) Dichroite (D) Iolite



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40. Chlorite is an abundant mineral in
- (A) low grade gneiss (B) high grade gneiss
(C) low grade schist (D) high grade schist
41. Mining, in which excavation is done from a raise is known as
- (A) underhand stoping (B) shrinkage stoping
(C) open overhand stoping (D) sub-level stoping
42. Which one of the following rocks shows high radioactive anomaly?
- (A) Amphibolite (B) Pegmatite
(C) Granite (D) Basalt
43. Which one of the following minor elements is very mobile?
- (A) Br (B) Zn
(C) Cu (D) Cr
44. "Diaphoresis" is a synonym of
- (A) plutonic metamorphism (B) regional metamorphism
(C) retrograde metamorphism (D) prograde metamorphism
45. The chemical composition of upper continental crust is that of
- (A) Granite (B) Diorite
(C) Gabbro (D) Basalt
46. Angular fragments of darker gneisses surrounded by more or less homogeneous granitic material are called
- (A) Agmatites (B) Metasome
(C) Diatexites (D) Metatexites
47. Which among the following is least stable mineral for weathering?
- (A) Quartz (B) Augite
(C) Olivine (D) Hornblende



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48. To which of the following is the term 'Bouma Sequence' associated with?
- (A) Tsunami deposits
 - (B) Turbidite deposits
 - (C) Beach rock deposits
 - (D) Placer desposits
49. Which one among the following is not a siliceous deposit?
- (A) Breccia
 - (B) Graywacke
 - (C) Bauxite
 - (D) Conglomerate
50. Which one of the following is correctly matched?
- (A) Malanjkhand - Copper
 - (B) Mosabani - Bauxite
 - (C) Khetri - Barite
 - (D) Ingalthal - Iron ore
51. The specific gravity of Nepheline is
- (A) 2.56 to 2.67
 - (B) 3.83 to 4.38
 - (C) 3.52 to 4.25
 - (D) 2.80 to 3.00
52. Mica plate is made up of
- (A) Muscovite
 - (B) Biotite
 - (C) Phlogopite
 - (D) Paragonite
53. Hypersthene crystallises in
- (A) Orthorhombic
 - (B) Monoclinic
 - (C) Triclinic
 - (D) Isometric
54. Which one among the following is not used as a refractory mineral?
- (A) Graphite
 - (B) Fireclay
 - (C) Garnet
 - (D) Magnesite
55. The principal producer of Kaolin in India is
- (A) Tamil Nadu
 - (B) Karnataka
 - (C) Rajasthan
 - (D) Orissa



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56. The hardness of magnesite ranges from
- (A) 1.5 to 2.5 (B) 2.5 to 3.5
(C) 3.5 to 4.5 (D) 4.5 to 5.5
57. According to which hypothesis, the planetary system is believed to be formed from an originally hot, rarefied, gaseous atmosphere which surrounded the primeval Sun?
- (A) Nebular Hypothesis (B) Planetesimal Hypothesis
(C) Tidal Hypothesis (D) Protoplanet Hypothesis
58. Mohorovicic discontinuity marks the base of
- (A) inner core (B) core
(C) mantle (D) crust
59. The Himalayas is an example for
- (A) Residual Mountains (B) Volcanic Mountains
(C) Diastrophic Mountains (D) Rocky Mountains
60. The theory of Plate Tectonics supposes that the lithosphere of the Earth is made up of
- (A) seven major and several minor plates
(B) seven major and seven minor plates
(C) several major and seven minor plates
(D) several major and several minor plates
61. The landforms such as Eskers, Kettles, Erratics and Varves are made by
- (A) Glaciers (B) Seas
(C) Rivers (D) Wind
62. Shear folding is also known as
- (A) recumbent folding (B) stress folding
(C) isoclinal folding (D) slip folding
63. Slicken sides in faults record
- (A) first movement (B) intermediate movement
(C) first and last movement (D) last movement



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64. True folding sometimes refers to
- (A) shear folding (B) flexure folding
(C) flow folding (D) slip folding
65. What is the age of Deccan volcanism in terms of millions of years?
- (A) 50 (B) 55
(C) 60 (D) 65
66. The formations on opposite sides of the unconformity are parallel and cover a large area of extent and represent considerable interval of time which are known as
- (A) angular unconformity (B) disconformity
(C) local unconformity (D) non-conformity
67. The resolution of Landsat IV MSS images is
- (A) 57 m (B) 65 m
(C) 79 m (D) 110 m
68. In an aerial photograph, maximum drainage density is observed over
- (A) Gabbro (B) Granite
(C) Phyllite (D) Shale
69. Closely spaced intersecting joints in basic igneous rocks in a small scale aerial photograph are seen as
- (A) fine texture (B) rippled texture
(C) coarse texture (D) criss-cross texture.
70. The calcareous forms of Foraminifera first appeared in
- (A) Cambrian (B) Ordovician
(C) Silurian (D) Devonian
71. The ammonoids became extinct in
- (A) Jurassic (B) Triassic
(C) Cretaceous (D) Permian



72. Which one of the following is correctly matched?
- (A) Schloenbachia : Lower lias
 - (B) Ceratites : Jurassic
 - (C) Perispinctes : Triassic
 - (D) Baculites : Chalk
73. The trilobite which does not belong to the Cambrian period is
- (A) Olenellus
 - (B) Paradoxides
 - (C) Olenus
 - (D) Phacops
74. The Makrana marble is equivalent to
- (A) Lower Dharwar
 - (B) Middle Dharwar
 - (C) Upper Dharwar
 - (D) Peninsular Gneiss
75. Cu deposits at Khetri are associated with
- (A) Alwar quartzite
 - (B) Ajabgarh schist
 - (C) Alwar slate
 - (D) Ajabgarh limestone
76. The Bairenkonda quartzites belong to
- (A) Kistna group
 - (B) Nallamalai group
 - (C) Cheyyar group
 - (D) Papaghni group
77. Spot the odd one out :
- (A) Srisailam quartzites
 - (B) Kolamnala shales
 - (C) Irlakonda quartzites
 - (D) Bairenkonda quartzites
78. Identify the correct order of age from oldest to youngest for the Cretaceous succession in Trichinopoly :
- (A) Cenomanian – Danian – Senonian – Turonian
 - (B) Danian – Senonian – Turonian – Cenomanian
 - (C) Cenomanian – Turonian – Senonian – Danian
 - (D) Turonian – Senonian – Cenomanian – Danian.



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79. When similar faces occur in parallel pairs on lower and upper sides of a crystal, the crystal is said to possess
- (A) axis of symmetry (B) centre of symmetry
(C) element of symmetry (D) plane of symmetry
80. In which crystal system does majority of minerals crystallise?
- (A) Cubic system (B) Tetragonal system
(C) Orthorhombic system (D) Monoclinic system
81. Birefractance is a property analogous to
- (A) birefringence (B) biaxiality
(C) pleochroism (D) isotropism
82. The least angle of incidence for which there is total reflection when visible light tends to pass from a denser into a less denser medium, is called
- (A) extinction angle (B) critical angle
(C) angle of dispersion (D) incident angle
83. When the vibration directions of a section coincide with those of polarizer and analyzer, the section appears to be dark. It is said to be the position of
- (A) dispersion (B) extinction
(C) birefringence (D) rotation
84. Positive biaxial crystals, when insertion of the gypsum plate yield isogyre as
- (A) convex side yellow and concave side blue
(B) convex side blue and concave side yellow
(C) convex side orange and concave side blue
(D) convex side blue and concave side red
85. The exhibition of prismatic colours in the interior or on the surface of a mineral is called
- (A) fluorescence (B) iridescence
(C) opalescence (D) phosphorescence



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86. The Carlsbad, Baveno and Manebach twinning is commonly found in
- (A) olivine (B) mica
(C) pyroxenes (D) plagioclase feldspars
87. The mineral Crossite is
- (A) orthoamphibole (B) clinoamphibole
(C) amphibole devoid of sodium (D) triclinic amphibole.
88. Which one of the following pairs is correctly matched?
- (A) Olivine - Amphibole
(B) Cordierite - Leucoxene
(C) Orthoclase - Augite
(D) Nepheline - Analcite.
89. Carlsbad law of twinning is characteristic of
- (A) albite (B) oligoclase
(C) microcline (D) orthoclase
90. Chemical composition of Leucite is
- (A) $\text{NaAlSi}_2\text{O}_6$ (B) KAlSi_3O_8
(C) KAlSi_2O_6 (D) $\text{NaAlSi}_3\text{O}_8$.
91. Which one of the following is the proper order of Moh's scale of hardness?
- (A) Calcite - Apatite - Fluorite - Orthoclase
(B) Calcite - Fluorite - Orthoclase - Gypsum
(C) Calcite - Fluorite - Apatite - Orthoclase
(D) Calcite - Orthoclase - Apatite - Quartz
92. Most of the gem quality of Corundum is obtained from
- (A) pegmatites (B) metamorphosed deposits
(C) placer deposits (D) nepheline-syenites

93. In Beryl, an increase in the alkali content is accompanied by
- (A) decrease in R.I. and increase in specific gravity
 - (B) decrease in R.I and decrease in specific gravity
 - (C) increase in R.I. and decrease in specific gravity
 - (D) increase in R.I. and increase in specific gravity
94. Topaz is characterised by high relief, weak birefringence with
- (A) + ve optic sign, prismatic form and moderate $2v$
 - (B) - ve optic sign, prismatic form and moderate $2v$
 - (C) + ve optic sign, prismatic form and high $2v$
 - (D) - ve optic sign, prismatic form and high $2v$
95. Zircon is a common accessory mineral of igneous rocks particularly in
- (A) volcanic rocks
 - (B) hypabyssal rocks
 - (C) plutonic rocks
 - (D) intermediate rocks
96. Which one of the following is an example of fibrous silicate with single direction of cleavage?
- (A) Wollastonite
 - (B) Tremolite
 - (C) Sillimanite
 - (D) Kyanite
97. Crystal system of Andalusite is
- (A) hexagonal system
 - (B) orthorhombic system
 - (C) monoclinic system
 - (D) triclinic system
98. Which of the following is a craton?
- (A) Eastern Ghats
 - (B) Western Ghats
 - (C) Aravallis
 - (D) Dharwar
99. K-feldspar ovoids mantled by plagioclase feldspar is characteristic of
- (A) spinifex texture
 - (B) orbicular texture
 - (C) rapakivi texture
 - (D) seriate texture
100. In peralkaline granites, the cation ratio $(K + Na) / Al$ is
- (A) < 1
 - (B) $= 1$
 - (C) > 1
 - (D) ≤ 1



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101. A granitic rock having equal amounts of plagioclase and alkali feldspar is
- (A) rockallite (B) enderbite
(C) adamellite (D) trondhjemite
102. The most distinctive features of Kimberlite compared with other mantle-derived magmas are the high contents of
- (A) Na and volatiles (B) K and volatiles
(C) Ca and volatiles (D) Fe and volatiles
103. A syenitic rock composed of alkali feldspars, aegirine and various introduced minerals like blue amphibole, apatite, sphene etc. from an adjacent carbonatite intrusion is called
- (A) fenite (B) calc-silicate
(C) peridotite (D) granite
104. The constant proportion in which the two constituents simultaneously crystallise is called
- (A) eutectic (B) solidus
(C) liquidus (D) ternary eutectic
105. The typical Ophitic texture in Dolerite indicates that
- (A) pyroxene has crystallised earlier than plagioclase
(B) feldspar has crystallised earlier than pyroxene
(C) feldspar and pyroxene have crystallised simultaneously
(D) feldspar and pyroxene have crystallised alternatively
106. The eutectic ratio for the pair Diopside and Anorthite is
- (A) 35 : 65 (B) 58 : 42
(C) 88 : 12 (D) 65 : 35
107. The proper order of crystallisation in the Bowen's reaction series is
- (A) Amphibole - Pyroxene - Mica - Quartz
(B) Pyroxene - Amphibole - Mica - Quartz
(C) Quartz - Pyroxene - Amphibole - Mica
(D) Pyroxene - Mica - Amphibole - Quartz



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108. Among the calcareous sedimentary deposits, a nodular iron-rich calc sinter formed by capillary action is

- (A) tufa (B) chalk
(C) marl (D) kankar

109. The mineral used in the construction of AFM diagram but not projected is

- (A) Muscovite (B) Staurolite
(C) Almandine (D) Cordierite

110. At many granite contacts, a zone of mixed rock separates granites from the country rocks. This mixed rock is called

- (A) tectonite (B) volatile
(C) andesite (D) migmatite

111. The characteristic minerals formed with increasing grades of metamorphism of pelites are

- (A) Chlorite – Biotite – Kyanite – Sillimanite
(B) Chlorite – Kyanite – Sillimanite – Biotite
(C) Biotite – Chlorite – Kyanite – Sillimanite
(D) Biotite – Chlorite – Sillimanite – Kyanite

112. According to Grubenmann's depth zones, amphibolite is in

- (A) epi-zone (B) meso-zone
(C) kata-zone (D) para-zone

113. The mineral Spodumene is a

- (A) clinopyroxene (B) orthopyroxene
(C) amphibole (D) feldspar

114. In lignite the moisture content amounts to

- (A) 43% (B) 33%
(C) 23% (D) 53%

115. Which one of the following minerals does not exhibit polymorphism?

- (A) Andalusite (B) Rutile
(C) Orthoclase (D) Biotite



116. A mineral that has steel grey colour-metallic lustre and two sets of perfect octahedral cleavage is
- (A) Magnetite (B) Molybdenite
(C) Barite (D) Galena
117. A massive, fine grained, snow white or light coloured gypsum used in cement industry is
- (A) selenite (B) gypsite
(C) satin spar (D) alabaster
118. Cannel coals that show either of fresh water or marine origin and usually related to oil shales are
- (A) peat (B) lignite
(C) bituminous coal (D) anthracite
119. Hematite is the ore mineral of
- (A) aluminium (B) copper
(C) asbestos (D) iron
120. The high-alumina clays with some non-plastic refractory flint and moderately refractory plastic clays, which withstand temperatures of 2714°F to 2984°F are
- (A) ball clays (B) fire clays
(C) china clays (D) bleaching clays
121. Which one is the heaviest among all?
- (A) Asbestos (B) Barite
(C) Coal (D) Mica
122. The mineral Phlogopite consists of
- (A) magnesium mica (B) sodium mica
(C) potassium mica (D) lithium mica
123. A sample of ground water having a value of 3,500 mg/L of total dissolved solids will fall under the category of
- (A) fresh water (B) brackish water
(C) saline water (D) brine

124. Which one of the following has maximum hydraulic conductivity?
- (A) Loess (B) Fine gravel
(C) Coarse sand (D) Sandstone
125. Capillary zone of subsurface water lies between
- (A) ground surface and intermediate vadose zone
(B) soil water zone and intermediate vadose zone
(C) intermediate vadose zone and water table
(D) water table and impermeable rock
126. A relatively impermeable formation neither containing nor transmitting water is called
- (A) aquiclude (B) aquifuge
(C) aquitard (D) aqua regia
127. The probable electrical conductivity of ground water having a TDS of 100 mg/L is
- (A) 56 $\mu\text{s/cm}$ (B) 356 $\mu\text{s/cm}$
(C) 156 $\mu\text{s/cm}$ (D) 256 $\mu\text{s/cm}$
128. Impact testing of a stone is done to know its
- (A) density (B) specific gravity
(C) durability (D) toughness
129. The effects of alternate drying and wetting on the foundation as well as abutments can be studied using
- (A) shear strength (B) modulus of elasticity
(C) slaking test (D) brown ring test
130. In geological surveying of tunnels, the most popular instrument used is
- (A) Theodolite (B) Tacheometer
(C) Plane table (D) Brunton conipass



131. Ore for which the quantitative estimates are based on broad knowledge of the geological character of the deposit and for which there are few samples or measurements is called
- (A) measured ore (B) indicated ore
(C) inferred ore (D) assured ore
132. Resoiling dredge is employed in
- (A) open cast mining (B) underground mining
(C) alluvial mining (D) caving method
133. The scintillometer tubes have a photosensitive
- (A) anode (B) electrode
(C) cathode (D) iodode
134. The detection of Ag as a pathfinder element in soil would imply the occurrence of
- (A) arsenic deposit (B) auriferous lode
(C) Cu deposits (D) sulphide deposits
135. Geiger-Muller counter is used in
- (A) gravity prospecting (B) magnetic prospecting
(C) electrical prospecting (D) radiometric prospecting
136. Which of the following is indicative of rock-melting during faulting?
- (A) Gouge (B) Breccia
(C) Pseudotachylite (D) Mylonite
137. method utilises the natural flow of current and operates on fundamental principle that an ore body, undergoing oxidation, is a source of electric current or telluric current.
- (A) Telluric current (B) Resistivity
(C) Wenner (D) Self-Potential
138. Nickel is concentrated in
- (A) Dunite (B) Pegmatite
(C) Granite (D) Nepheline Syenite



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139. Which is a measure of the total load of material a stream can move?
- (A) Bed load (B) Discharge
(C) Capacity (D) Suspended load
140. Graptolites are most common and abundant in
- (A) sandstone (B) limestone
(C) black shales (D) siltstone
141. Shells with Ammonite suture appeared first during
- (A) permian (B) triassic
(C) cretaceous (D) jurassic
142. Schulze's solution is used to separate microfossils from
- (A) shale (B) chert
(C) coal (D) limestone
143. Silica undersaturated liquids are formed under the conditions of
- (A) low pressure and high degree of melting
(B) high pressure and high degree of melting
(C) high pressure and low degree of melting
(D) low pressure and low degree of melting
144. Magma that commonly has anomalously high contents of various exotic incompatible elements is
- (A) carbonatite (B) harzburgite
(C) kimberlite (D) websterite
145. Which one of the following is correctly matched?
- (A) Biaxial interference figure - Diamond
(B) Uniaxial interference figure - Leucite
(C) Anomalous interference colour - Garnet
(D) Pleochroism - Magnetite
146. The specific gravity of Sillimanite is
- (A) 3.24 (B) 4.24
(C) 2.12 (D) 1.54



147. Which one of the following rocks has the highest tensile strength?
- (A) Sandstone (B) Slate
(C) Marble (D) Granite
148. Wollastonite is derived as a product of
- (A) plutonic metamorphism of shales
(B) cataclastic metamorphism
(C) contact metamorphism of impure limestones
(D) regional metamorphism of mafic rocks
149. Cyanide is commonly used to extract which one of the following metals from its ore?
- (A) Gold (B) Silver
(C) Copper (D) Lead
150. Transcurrent faults can be regarded as
- (A) dip-slip (B) strike-slip
(C) oblique-slip (D) transform
