

PU M Sc Applied Geology

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110 PU_2015_367_New

The average thickness of a lithospheric plate is approximately:-

- ☐ 35 km
- ☐ 100 km
- ☐ 5 km
- ☐ 8 km

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104 PU_2015_367_New

Grains that crystallize to a significantly larger size than those of the matrix, in an igneous rocks are called:-

- ☐ Relic inclusions
- ☐ Porphyroblasts
- ☐ Xenoliths
- ☐ Phenocrysts

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114 PU_2015_367_New

Structurally quartz is a:-

- ☐ Framework silicate
- ☐ Ring silicate
- ☐ Isolated silicate
- ☐ Chain silicate

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126 PU_2015_367_New

A Pyroxine mineral having equal amount of CaO and FeO molecules is known as:-

- ☐ Bronzite
- ☐ Pigeonite
- ☐ Diopside
- ☐ Hedenbergite

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153 PU_2015_367_New

The high pressure polymorph of silica, coesite, stishovite, may be associated with:-

- ☐ Contact metamorphism
- ☐ Impact metamorphism
- ☐ Burial metamorphism

- ☐ Hydrothermal metamorphism

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159 PU_2015_367_New

The least stable mineral in clastic detritus is:-

- ☐ Quartz
- ☐ Olivine
- ☐ Hornblende
- ☐ Amphibole

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111 PU_2015_367_New

A crystal appears unchanged when rotated 180° . Such an axis of rotation is axis of:-

- ☐ 2-fold symmetry
- ☐ 3-fold symmetry
- ☐ 4-fold symmetry
- ☐ 1-fold symmetry

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139 PU_2015_367_New

Fold with alternate sharp and broad hinges are called:-

- ☐ Cuspate fold
- ☐ Box fold
- ☐ Chevron fold
- ☐ Concentric fold

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140 PU_2015_367_New

If the axial planar cleavage is steeper than the dip of the fold limb, then limb is called:-

- ☐ Overturned limb
- ☐ Inverted limb
- ☐ Normal limb
- ☐ Back limb

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156 PU_2015_367_New

If an aggregate of sediment consists of particles that are all about the same size, it is said to be:-

- ☐ Poorly rounded
- ☐ Sandstone
- ☐ Lithified

- ☐ Well sorted

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100 PU_2015_367_New

A coarse grained rock mainly composed of orthopyroxene and plagioclase is called as:-

- ☐ Gabbro
☐ Harzburgite
☐ Norite
☐ Lherzolite

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109 PU_2015_367_New

Continental crust is higher in elevation than oceanic crust because:-

- ☐ It is denser than oceanic crust
☐ It is more buoyant than oceanic crust
☐ It is older than oceanic crust
☐ It is younger than oceanic crust

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113 PU_2015_367_New

Electronegativity of elements increases:-

- ☐ In atoms that have partially filled outer shell
☐ With decrease in neutrons
☐ From left to right of the Periodic table
☐ From right to left of the Periodic table

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124 PU_2015_367_New

Which one of the following is permitted in the Miller's indices?

- ☐ Fractions
☐ Infinity
☐ Zero
☐ Real numbers

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135 PU_2015_367_New

Predominant magma that erupted during the Deccan Volcanism is:-

- ☐ Tholeritic basalt
☐ Alkali basalt
☐ Trachyte

- ☐ Andesite

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150 PU_2015_367_New

In the triangular ACF diagrams used to designate the mineralogical and chemical composition of metamorphic facies, the 'A' apex represent:-

- ☐ $\text{Al}_2\text{O}_3 + \text{Fe}_2\text{O}_3 - \text{Na}_2\text{O} - \text{K}_2\text{O}$
- ☐ Al_2O_3
- ☐ $\text{Al}_2\text{O}_3 + \text{Na}_2\text{O} + \text{K}_2\text{O}$
- ☐ $\text{Al}_2\text{O}_3 + \text{Fe}_2\text{O}_3 - \text{K}_2\text{O}$

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101 PU_2015_367_New

Which of the following is a concordant intrusive body?

- ☐ Cone sheet
- ☐ Lopolith
- ☐ Stock
- ☐ Ring dike

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148 PU_2015_367_New

Anhydrous rocks are characteristically present in rocks belonging to:-

- ☐ Granulite facies
- ☐ Amphibolite facies
- ☐ Greenschist facies
- ☐ Eclogite facies

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119 PU_2015_367_New

Which one of the following minerals crystallize in the Orthorhombic system?

- ☐ Calcite
- ☐ Aragonite
- ☐ Dolerite
- ☐ Rhodochrosite

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155 PU_2015_367_New

Which of the following is detrital sediment?

- ☐ Quartz sand
- ☐ Graded bedding

- ☐ Broken sea shells
- ☐ Ions in solution

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127 PU_2015_367_New

Plagioclase having 30 to 50 % anorthite content is known as:-

- ☐ Labradorite
- ☐ Anorthoclase
- ☐ Andesine
- ☐ Oligoclase

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157 PU_2015_367_New

Which of the following can be used to determine paleocurrent direction?

- ☐ Cross-bedding
- ☐ Graded bedding
- ☐ Mud cracks
- ☐ Turbidity currents

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107 PU_2015_367_New

Earth's crust consists of continental and oceanic parts. Which of the following statement is **not** true?

- ☐ Oceanic crust is more metamorphosed compared to continental crust
- ☐ Oceanic crust is younger than continental crust
- ☐ Oceanic crust is thinner compared to continental crust
- ☐ Oceanic crust has global layering while continental crust doesn't

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137 PU_2015_367_New

A fold which is concave upward is called as:-

- ☐ Antiform
- ☐ Synform
- ☐ Anticline
- ☐ Syncline

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102 PU_2015_367_New

When a single pyroxene envelops several well-developed plagioclase laths, the texture is called as:-

- ☐ Porphyroblast
- ☐ Ophitic texture

- ☐ Granoblast
- ☐ Poikiloblast

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120 PU_2015_367_New

Which one of the following minerals crystallize in cubic system?

- ☐ Spinel
- ☐ Hematite
- ☐ Corundum
- ☐ Siderite

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118 PU_2015_367_New

If a set of equivalent crystal faces are related to each other by a three fold axis of rotation, what will be angle between these faces?

- ☐ 60
- ☐ 120
- ☐ 30
- ☐ 90

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117 PU_2015_367_New

Which of the following is a K-feldspar?

- ☐ Andesine
- ☐ Orthoclase
- ☐ Anorthite
- ☐ Oligoclase

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129 PU_2015_367_New

A rock containing Phenocrysts of Olivine set in a fine grained matrix of pyroxene and plagioclase is known as:-

- ☐ Diorite
- ☐ Basalt
- ☐ Gabbro
- ☐ Norite

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147 PU_2015_367_New

In case of Barrovian metamorphism, the lowest grade of metamorphism is marked by the mineral:-

- ☐ Biotite

- ☐ Kyanite
- ☐ Chlorite
- ☐ Garnet

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108 PU_2015_367_New

Which of the following regions would have thicker crust?

- ☐ Precambrian Shield
- ☐ Mountain belt
- ☐ Island arc
- ☐ Mid Oceanic ridges

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121 PU_2015_367_New

Which one of the following mineral belongs to spinel group?

- ☐ Hematite
- ☐ Magnetite
- ☐ Zircon
- ☐ Ilmenite

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144 PU_2015_367_New

Metamorphic grade refers to:-

- ☐ Intensity of metamorphism
- ☐ Texture and structure of the rock types
- ☐ Critical mineral assemblages
- ☐ Particular rock type

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132 PU_2015_367_New

At the binary eutectic which of the following phases coexist?

- ☐ A crystal phase and a liquid
- ☐ Two different crystal phases
- ☐ Three different crystal phases
- ☐ Two different crystal phases and a liquid

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142 PU_2015_367_New

If the strike of a dip slip normal fault is N30°E, then the trend of the net slip will be:-

- ☐ N30°W

- ☐ N60°E
- ☐ S30°W
- ☐ S60°E

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138 PU_2015_367_New

A fold in which younging direction is away from the fold core is called:-

- ☐ Synform
- ☐ Antiform
- ☐ Anticline
- ☐ Syncline

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133 PU_2015_367_New

Complete solid solution is exhibited at 1 atmospheric pressure by:-

- ☐ Diopside Enstatite
- ☐ Albite Anorthite
- ☐ Actinolite Tremolite
- ☐ Enstatite Ferrosilite

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103 PU_2015_367_New

Pyroclastic deposits are usually found associated with:-

- ☐ Ropy lava
- ☐ Shield volcano
- ☐ Pahoehoe flow
- ☐ Explosive volcano

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115 PU_2015_367_New

A mineral is scratchable by quartz but not by apatite. Hardness of this mineral on Mohs scale is:-

- ☐ Less than apatite
- ☐ less than 5
- ☐ less than 7
- ☐ more than 7

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134 PU_2015_367_New

Komatites are typically found in:-

- ☐ Tertiary volcanic provinces

- ☐ Proterozoic mobile belts
- ☐ Proterozoic sedimentary basins
- ☐ Archean greenstone belts

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130 PU_2015_367_New

The major minerals present in granite are:-

- ☐ Sanidine, quartz and labradorite
- ☐ Nepheline, quartz and labradorite
- ☐ Orthoclase, quartz and nepheline
- ☐ Microcline, quartz and albite

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154 PU_2015_367_New

Sedimentary breccia is a rare rock type because:-

- ☐ Sand deposits are typically well sorted
- ☐ Gravel is rounded quickly during transport
- ☐ Feldspars are chemically unstable
- ☐ Clay is less abundant than other sedimentary particles

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149 PU_2015_367_New

The reaction Ferrosilite + Diopside = Enstatite + Hedenbergite, is a kind of:-

- ☐ Oxidation reaction
- ☐ Ion-exchange reaction
- ☐ Solid-solid net-transfer reaction
- ☐ Devolatilization reaction

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152 PU_2015_367_New

Which of the metamorphic zone of Barrow is similar to the greenschist facies?

- ☐ Biotite zone
- ☐ Staurolite zone
- ☐ Sillimanite zone
- ☐ Garnet zone

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141 PU_2015_367_New

If rake/pitch of the net slip on the fault plane is 90, then the fault will be:-

- ☐ Dip-slip fault

- ☐ Oblique slip fault
- ☐ Strike-slip fault
- ☐ Hinge fault

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116 PU_2015_367_New

Which of the following mineral is a chain silicate?

- ☐ Augite
- ☐ Biotite
- ☐ Olivine
- ☐ Anorthite

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131 PU_2015_367_New

Volcanic equivalent of the plutonic rock granodiorite is:-

- ☐ Rhodacite
- ☐ Rhyolite
- ☐ Dacite
- ☐ Andesite

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123 PU_2015_367_New

Which one of the following is an open form?

- ☐ Prism
- ☐ Octahedron
- ☐ Tetrahedron
- ☐ Pyramid

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143 PU_2015_367_New

Metamorphic facies are defined by the:-

- ☐ Critical mineral assemblages
- ☐ Pressure-Temperature condition
- ☐ Particular rock type
- ☐ Texture and structure of the rock types

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146 PU_2015_367_New

The mineral omphacite is characteristic of:-

- ☐ Blueschist facies

- ☐ Granulite facies
- ☐ Greenschist facies
- ☐ Eclogite facies

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125 PU_2015_367_New

Which one of the following forms belongs to the isometric system?

- ☐ Sphenoid
- ☐ Pyramid
- ☐ Prism
- ☐ Octahedral

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105 PU_2015_367_New

Slices of oceanic crust that have been emplaced (obducted) onto continental crust:-

- ☐ Granulite
- ☐ Mylonite
- ☐ Migmatite
- ☐ Ophiolite

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122 PU_2015_367_New

The axial ratio of a crystal is determined as 0.82 : 1.94. Which crystal system this may belong to?

- ☐ Hexagonal or Tetragonal
- ☐ Isometric or Hexagonal
- ☐ Isometric or Tetragonal
- ☐ Orthorhombic or Monoclinic

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136 PU_2015_367_New

If the orientation of the principal stress axes X, Y and Z does not change during the deformation, the deformation is known as:-

- ☐ Simple shear
- ☐ Triaxial stress
- ☐ Pure shear
- ☐ Axial strain

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106 PU_2015_367_New

Outer core is liquid while the inner core is solid because:-

- ☐ Inner core is rich in iron and nickel while outer core is not
- ☐ Outer core is in contact with liquid mantle
- ☐ Melting point of material in outer core is less than the ambient temperature while it is more for the material in inner core due to higher pressure
- ☐ Outer core is heated more than the inner core

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112 PU_2015_367_New

In a crystal 4 non-parallel faces intersect in a point. Form of these faces is:-

- ☐ Dome
- ☐ Prism
- ☐ Pinacoid
- ☐ Pyramid

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145 PU_2015_367_New

Which of the following metamorphic facies is characterized by maximum temperature and minimum pressures?

- ☐ Greenschist
- ☐ Blueschist
- ☐ Sanidinite facies
- ☐ Hornblende-hornfels facies

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158 PU_2015_367_New

Bedding or stratification in a sedimentary rock:-

- ☐ Represents variations which took place during deposition
- ☐ Is always exactly horizontal
- ☐ Results from heat
- ☐ Is due to directed pressure from earth forces

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151 PU_2015_367_New

Paired metamorphic belt is a characteristic feature of:-

- ☐ Continental collision zone
- ☐ Sea floor spreading zone
- ☐ Continental rift zone
- ☐ Subduction zone

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128 PU_2015_367_New

Which one of the following statements about Andalusite, Kyanite and Sillimanite is WRONG?

- ☐ Commonly one of them is present in Metamorphosed peptic rocks
- ☐ If all the three are present the pressure and temperature conditions can be determined
- ☐ They have same chemical formula
- ☐ They have same crystal structure

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171 PU_2015_367_New

The thorax and the pygidium can be differentiated by their:-

- ☐ movable and immovable character
- ☐ number of furrow
- ☐ shape and size
- ☐ the nature of furrows

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165 PU_2015_367_New

A drainage pattern in which streams flow in and out of lakes with irregular flow directions is:-

- ☐ Rectangular
- ☐ Deranged
- ☐ Radial
- ☐ Longitudinal

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177 PU_2015_367_New

Petrified wood is an example of:-

- ☐ Desiccation
- ☐ Encrustation
- ☐ Altercation
- ☐ Substitution

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163 PU_2015_367_New

Which of these environments can produce cross beds?

- ☐ Alluvial fans
- ☐ River Deltas
- ☐ Sand dunes
- ☐ All the above

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175 PU_2015_367_New

Which group provides the fast moving invertebrate?

- ☐ Gastropoda
- ☐ Cephalopoda
- ☐ Echinodermata
- ☐ Brachiopoda

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174 PU_2015_367_New

What is the age of Muth quartzite?

- ☐ Carboniferous
- ☐ Devonian
- ☐ Ordovician
- ☐ Silurian

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178 PU_2015_367_New

Neogene period includes:-

- ☐ Oligocene, Miocene & Pliocene
- ☐ Miocene & Pliocene
- ☐ Paleocene, Eocene & Oligocene
- ☐ Paleogene & Eocene

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164 PU_2015_367_New

In which of the following do foreset beds occur?

- ☐ Alluvial fans
- ☐ Point bars
- ☐ Deltas
- ☐ Natural levees

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172 PU_2015_367_New

Meaning of Coelentrates is:-

- ☐ chambered body
- ☐ segmented body
- ☐ hollow inside
- ☐ stomach foot

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168 PU_2015_367_New

In uniform flat rocks, drainage patterns tend to be:-

- ☐ Trellis
- ☐ Dendritic
- ☐ Braided
- ☐ Radial

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173 PU_2015_367_New

The Olive series is developed in:-

- ☐ Kashmir
- ☐ Salt range
- ☐ Simla
- ☐ Kumaon

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162 PU_2015_367_New

Which would be least likely to indicate a desert environment?

- ☐ Evaporite
- ☐ Mud cracks
- ☐ Large cross-beds
- ☐ Limestone

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179 PU_2015_367_New

Petroleum and Natural gas are chiefly composed of:-

- ☐ Oxygen
- ☐ Hydrogen & Carbon
- ☐ Hydrogen
- ☐ Nitrogen

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161 PU_2015_367_New

Mud cracks are most likely to form by:-

- ☐ Periodic exposure to the air and drying out
- ☐ Fast-moving water that gradually slowed down
- ☐ Rapidly changing patterns of erosion and deposition
- ☐ Gently oscillating waves

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176 PU_2015_367_New

When did the Trilobite disappear from the Earth?

- ☐ End of Ordovician
- ☐ End of Devonian
- ☐ End of Jurassic
- ☐ End of Permian

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160 PU_2015_367_New

Graded bedding usually signifies:-

- ☐ Stagnant water
- ☐ Fast-moving water that gradually slowed down
- ☐ Slow-moving water that gradually speeded up
- ☐ Deposition on dry land

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167 PU_2015_367_New

The dry lake beds in many deserts are:-

- ☐ Inselbergs
- ☐ Pediments
- ☐ Playas
- ☐ Bajadas

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169 PU_2015_367_New

Mass wasting refers to material moved primarily by:-

- ☐ Ice
- ☐ Gravity
- ☐ Wind
- ☐ Running water

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170 PU_2015_367_New

The process whereby hydrogen and hydroxyl ions of water replace ions in minerals is:-

- ☐ Lateritisation
- ☐ Hydrolysis
- ☐ Oxidation
- ☐ Carbonization

80 of 100

166 PU_2015_367_New

Erosional remnants of floodplains that are higher than the current level of a stream are:-

- ☐ Cut banks
- ☐ Natural bridges
- ☐ Incised meanders
- ☐ Stream terraces

81 of 100

196 PU_2015_367_New

India is a major producer of one of the following metals.

- ☐ Aluminium
- ☐ Lead
- ☐ Uranium
- ☐ Gold

82 of 100

193 PU_2015_367_New

In a lateritic bauxite deposit, the uppermost litho-unit is:-

- ☐ partially weathered bedrock
- ☐ lithomarge
- ☐ bauxite
- ☐ laterite

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189 PU_2015_367_New

One of the following sulphide minerals can be translucent or transparent.

- ☐ Pyrite
- ☐ Chalcopyrite
- ☐ Sphalerite
- ☐ Galena

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185 PU_2015_367_New

Ore deposits of one of the following economic minerals are always formed by magmatic process.

- ☐ Pyrolusite
- ☐ Sphalerite
- ☐ Chromite
- ☐ Magnetite

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183 PU_2015_367_New

One of the following occurs in the form of pipe.

- ☐ Diamond bearing kimberlite
- ☐ Porphyry copper
- ☐ Volcanogenic massive sulphide
- ☐ Mica pegmatite

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192 PU_2015_367_New

One of the following represents the chemical composition of magnetite.

- ☐ $\text{Fe}^{2+}\text{Fe}^{3+}\text{O}_3$
- ☐ $\text{Fe}^{3+}_2\text{O}_3$
- ☐ $\text{Fe}^{2+}\text{Fe}^{3+}_2\text{O}_4$
- ☐ $\text{Fe}^{3+}\text{Fe}^{2+}_2\text{O}_4$

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197 PU_2015_367_New

Copper is not a constituent element of one of the following ore minerals.

- ☐ Covellite
- ☐ Pyrrhotite
- ☐ Bornite
- ☐ Chalcocite

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191 PU_2015_367_New

One of the following represents the chemical composition of pyrrhotite.

- ☐ $\text{Fe}_2\text{S}_{1-x}$
- ☐ FeS_{1-x}
- ☐ $\text{Fe}_{1-x}\text{S}_2$
- ☐ Fe_{1-x}S

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198 PU_2015_367_New

The largest zinc deposit in India is located at:-

- ☐ Sargipalle, Orissa
- ☐ Agucha, Rajasthan
- ☐ Agnigundla, Andhra Pradesh
- ☐ Zawar, Rajasthan

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186 PU_2015_367_New

One of the following pairs is an example of "oxide mineral : sulphide mineral".

- ☐ Spessartite : Sphalerite
- ☐ Gibbsite : Galena
- ☐ Cassiterite : Chalcopyrite
- ☐ Pyrrhotite : Pyrite

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199 PU_2015_367_New

The largest bauxite mines in India is located at:-

- ☐ Yercaud, Tamil Nadu
- ☐ Kolli Hills, Tamil Nadu
- ☐ Korba, Madhya Pradesh
- ☐ Panchpatmali, Orissa

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184 PU_2015_367_New

Identify the wrong pair of "ore mineral : host rock".

- ☐ Hematite : Banded Iron Formation
- ☐ Galena : Carbonate rock
- ☐ Chalcopyrite : Quartz monzonite
- ☐ Chromite : Norite

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187 PU_2015_367_New

Hydrothermal ore deposits often occur in the form of:-

- ☐ Stock
- ☐ Vein
- ☐ Bed
- ☐ Dyke

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190 PU_2015_367_New

One of the following oxide minerals can be translucent or transparent.

- ☐ Chromite
- ☐ Wolframite
- ☐ Cassiterite
- ☐ Pyrolusite

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182 PU_2015_367_New

One of the following economic minerals is commonly associated with high grade metamorphic rocks.

- ☐ Chromite
- ☐ Magnetite
- ☐ Talc
- ☐ Graphite

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194 PU_2015_367_New

One of the following metals is generally extracted as a byproduct from sulphide ore of copper.

- ☐ Silver
- ☐ Gold
- ☐ Cadmium
- ☐ Gallium

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181 PU_2015_367_New

Emerald and ruby are gem varieties of _____ respectively.

- ☐ Garnet and Beryl
- ☐ Corundum and Beryl
- ☐ Beryl and Corundum
- ☐ Topaz and Corundum

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180 PU_2015_367_New

The fossil contents of elementary canal of animals are known as:-

- ☐ Coprolites
- ☐ Mould
- ☐ Trails
- ☐ Burrows

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188 PU_2015_367_New

Which one of the following statement about the petrological microscope is true?

- ☐ Both the polarizers are fitted below the circular stage
- ☐ Two polarizers, one above and another below the circular stage are present
- ☐ Both the polarizers are fitted above the circular stage
- ☐ A circular stage and a polarizer are present

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195 PU_2015_367_New

Wall rock alteration is a characteristic feature of:-

- ☐ Sedimentary deposits
- ☐ Metamorphic deposits
- ☐ Hydrothermal deposits
- ☐ Magmatic deposits

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148 PU_2016_367_E

Hydrothermal ore deposits often occur in the form of:-

- ☐ Vein
- ☐ Bed
- ☐ Dyke
- ☐ Stock

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163 PU_2016_367_E

In constriction type of strain, λ_2 is:-

- ☐ < 1
- ☐ $= 0$
- ☐ > 1
- ☐ $= 1$

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133 PU_2016_367_E

Which is the correct sequence of terrestrial planets from sun?

- ☐ Venus, Earth, Mars, Mercury
- ☐ Mercury, Earth, Venus, Mars
- ☐ Mercury, Venus, Earth, Mars
- ☐ Mars, Venus, Earth, Mercury

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169 PU_2016_367_E

In case of single and round hinged multi-layer buckle fold, the competent and incompetent layer will show respectively:-

- ☐ Class 1 & Class 2
- ☐ Class 1B and Class 1C - fold of Ramsay
- ☐ Class 2 and Class 3 fold
- ☐ Class 1 & Class 3

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117 PU_2016_367_E

Which one of the followings could not be used to find out depositional top of a bed?

- ☐ Pillow lavas
- ☐ Contact between two lithologies
- ☐ Ripple marks

- ☐ Cross bedding

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Pyroclastic deposits are usually found associated with:-

- ☐ Shield volcano
☐ Pahoehoe flow
☐ Explosive volcano
☐ Ropy lava

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190 PU_2016_367_E

Lingula is an example of:-

- ☐ Index fossils
☐ Ichnofossils
☐ body fossils
☐ Living fossils

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118 PU_2016_367_E

Which of the following mineral combination cannot exist in thermodynamic equilibrium?

- ☐ Quartz, feldspar and tourmaline
☐ Quartz, olivine and pyroxene
☐ Kynite, sillimanite and andalusite
☐ Plagioclase, augite and magnetite

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157 PU_2016_367_E

India is a major producer of one of the following metals:-

- ☐ Gold
☐ Uranium
☐ Aluminium
☐ Lead

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202 PU_2016_367_E

If the water table in a well is constant due to no flow, the condition is known as:-

- ☐ Equilibrium
☐ Hydrostatic
☐ Hydrophilic

- ☐ Hydrodynamics

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177 PU_2016_367_E

In 2015, World's most polluted city is identified as:-

- ☐ Beijing
☐ Dhaka
☐ Delhi
☐ Karachi

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164 PU_2016_367_E

Pull apart basin is developed due to:-

- ☐ Reverse faulting
☐ Strike slip faulting
☐ Normal faulting
☐ Oblique faulting

13 of 100

161 PU_2016_367_E

Elongation (ϵ) is measured as the ratio between:-

- ☐ final length to initial length
☐ change in length to initial length
☐ change in length to final length
☐ initial length to final length

14 of 100

178 PU_2016_367_E

Light year is a unit of:-

- ☐ distance
☐ time
☐ light
☐ light intensity

15 of 100

167 PU_2016_367_E

Hybrid joint is developed by:-

- ☐ mode II & Mode III
☐ mode-I
☐ Mode I & Mode III

- ☐ Mode II - fracture propagation

16 of 100

150 PU_2016_367_E

One of the following sulphide minerals can be translucent or transparent:-

- ☐ Galena
- ☐ Chalcopyrite
- ☐ Sphalerite
- ☐ Pyrite

17 of 100

154 PU_2016_367_E

In a lateritic bauxite deposit, the uppermost litho-unit is:-

- ☐ laterite
- ☐ bauxite
- ☐ lithomarge
- ☐ partially weathered bedrock

18 of 100

200 PU_2016_367_E

The Deccan traps shows maximum thickness towards:-

- ☐ North
- ☐ East
- ☐ West
- ☐ South

19 of 100

183 PU_2016_367_E

Belemnite belongs to:-

- ☐ Cephalopoda
- ☐ Brachiopoda
- ☐ Trilobita
- ☐ Gastropoda

20 of 100

100 PU_2016_367_E

A hand specimen of a rock contains quartz and garnet. What lustre they show?

- ☐ Resinous and vitreous
- ☐ Vitreous and adamantine
- ☐ Adamantine and vitreous

- ☐ Vitreous and resinous

21 of 100

184 PU_2016_367_E

Which of the following Mollusca are entirely marine organisms?

- ☐ Cephalopoda
- ☐ Gastropoda
- ☐ Bivalvia
- ☐ none

22 of 100

155 PU_2016_367_E

One of the following metals is generally extracted as a byproduct from sulphide ore of copper.

- ☐ Gold
- ☐ Silver
- ☐ Cadmium
- ☐ Gallium

23 of 100

143 PU_2016_367_E

One of the following economic minerals is commonly associated with high grade metamorphic rocks.

- ☐ Magnetite
- ☐ Talc
- ☐ Chromite
- ☐ Graphite

24 of 100

172 PU_2016_367_E

The largest carbon reservoir on earth is:-

- ☐ oceans
- ☐ limestone
- ☐ soil
- ☐ atmosphere

25 of 100

113 PU_2016_367_E

Which one of the following is not produced by organic activity?

- ☐ Chalk
- ☐ Gypsum
- ☐ Coral

- ☐ Chert

26 of 100

151 PU_2016_367_E

One of the following oxide minerals can be translucent or transparent.

- ☐ Chromite
☐ Pyrolusite
☐ Cassiterite
☐ Wolframite

27 of 100

180 PU_2016_367_E

Sound waves in air are:-

- ☐ electromagnetic
☐ transverse
☐ polarised
☐ longitudinal

28 of 100

126 PU_2016_367_E

Why do magmas rise toward Earth's surface?

- ☐ Magmas have higher content of pyroxenes than the surrounding rocks
☐ Most magmas are richer in silica than most crustal and upper mantle rocks
☐ Magmas are more viscous than solid rocks in the crust and upper mantle
☐ Magmas, being melts and having gases, are less dense than the adjacent solid rock

29 of 100

211 PU_2016_367_E

A coarse grained rock mainly composed of orthopyroxene and plagioclase is called as:-

- ☐ Lherzolite
☐ Norite
☐ Harzburgite
☐ Gabbro

30 of 100

193 PU_2016_367_E

The youngest succession of Jurassic rocks in Kachchh basin is known as ____ Formation.

- ☐ Patcham
☐ Katrol
☐ Chari

☐ Umia

31 of 100

101 PU_2016_367_E

A crystal face is parallel to a and c-axis and intersects the b crystallographic axis at $4 b_0$ length. What will be its Miller index?

- ☐ (040)
- ☐ (100)
- ☐ (101)
- ☐ (010)

32 of 100

136 PU_2016_367_E

Which mineral is most stable for weathering?

- ☐ olivine
- ☐ halite
- ☐ hematite
- ☐ calcite

33 of 100

219 PU_2016_367_E

Which of the following regions would have thicker crust?

- ☐ Precambrian Shield
- ☐ Mid Oceanic ridges
- ☐ Mountain belt
- ☐ Island arc

34 of 100

204 PU_2016_367_E

The water in the soil water zone held by surface tension forces is known as:-

- ☐ Capillary water
- ☐ Groundwater
- ☐ Hygroscopic water
- ☐ Phreatic water

35 of 100

191 PU_2016_367_E

The least number of fossils are found in rocks formed during which era?

- ☐ Cenozoic
- ☐ Mesozoic

- ☐ Proterozoic
- ☐ Paleozoic

36 of 100

212 PU_2016_367_E

Which of the following is a concordant intrusive body?

- ☐ Stock
- ☐ Cone sheet
- ☐ Ring dike
- ☐ Lopolith

37 of 100

112 PU_2016_367_E

Which one of the following would not be the effect of the climate change?

- ☐ increased frequency of cyclones
- ☐ sea level rise
- ☐ tsunami
- ☐ uneven distribution of rainfall

38 of 100

170 PU_2016_367_E

If attitude of overlying and underlying sedimentary beds across an unconformity surface is measured respectively as $089^{\circ}/08^{\circ}\text{N}$ and $025^{\circ}/46^{\circ}\text{NW}$, then the unconformity can be called as:-

- ☐ Paraconformity
- ☐ Angular unconformity
- ☐ Nonconformity
- ☐ Disconformity

39 of 100

182 PU_2016_367_E

Which is the oldest fossil?

- ☐ Trilobita
- ☐ Graptoloidea
- ☐ Fish
- ☐ Algae

40 of 100

160 PU_2016_367_E

The largest bauxite mines in India is located at:-

- ☐ Korba, Madhya Pradesh

- ☐ Panchpatmali, Orissa
- ☐ Yercaud, Tamil Nadu
- ☐ Kolli Hills, Tamil Nadu

41 of 100

121 PU_2016_367_E

Which of the following contains the highest amount of uranium?

- ☐ Gabbro
- ☐ Granite
- ☐ Diorite
- ☐ Peridotite

42 of 100

207 PU_2016_367_E

The unconsolidated deposits or bedrock that continuously has a temperature below 0°C is called as:-

- ☐ Permafrost
- ☐ Karst topography
- ☐ Ice sheets
- ☐ Bad land topography

43 of 100

171 PU_2016_367_E

The susceptibility of diamagnetic material is:-

- ☐ negative
- ☐ zero
- ☐ 5
- ☐ positive

44 of 100

106 PU_2016_367_E

Sudden cooling of magma erupted on the Earth's surface results in _____ texture.

- ☐ hypidiomorphic
- ☐ porphyritic
- ☐ aplitic
- ☐ ophitic

45 of 100

125 PU_2016_367_E

The plutonic equivalent of trachyte is:-

- ☐ Diorite

- ☐ Syenite
- ☐ Granite
- ☐ Gabbro

46 of 100

216 PU_2016_367_E

Slices of oceanic crust that have been emplaced (obducted) onto continental crust:-

- ☐ Ophiolite
- ☐ Granulite
- ☐ Mylonite
- ☐ Migmatite

47 of 100

186 PU_2016_367_E

Most likely to result in an organism not being fossilized:-

- ☐ preservation from decay
- ☐ lack of hard parts
- ☐ being a water-dwelling organism
- ☐ rapid burial after death

48 of 100

104 PU_2016_367_E

Which one of the following mineral does NOT belong to the oxide group?

- ☐ Ilmenite
- ☐ Beryl
- ☐ Magnetite
- ☐ Corundum

49 of 100

175 PU_2016_367_E

Which of the following is not a green house gas?

- ☐ Methane
- ☐ Nitrous oxide
- ☐ Argon
- ☐ Ozone

50 of 100

158 PU_2016_367_E

Copper is not a constituent element of one of the following ore minerals:-

- ☐ Pyrrhotite

- ☐ Covellite
- ☐ Bornite
- ☐ Chalcocite

51 of 100

218 PU_2016_367_E

Earth's crust consists of continental and oceanic parts. Which of the following statement is not true?

- ☐ Oceanic crust is younger than continental crust
- ☐ Oceanic crust is more metamorphosed compared to continental crust
- ☐ Oceanic crust has global layering while continental crust doesn't
- ☐ Oceanic crust is thinner compared to continental crust

52 of 100

124 PU_2016_367_E

In a thin section of extrusive igneous rock, well developed ovine crystals are surrounded by glass, the resultant texture is called:-

- ☐ Hyaloporphyritic
- ☐ Xenoblastic
- ☐ Porphyritic
- ☐ Poikilitic

53 of 100

129 PU_2016_367_E

Different mineral assemblages of rocks metamorphosed under the same physical conditions (P & T) represent:-

- ☐ different metamorphic grade
- ☐ different types of metamorphism
- ☐ different zones of metamorphism
- ☐ different bulk composition

54 of 100

188 PU_2016_367_E

In Brachiopoda two valves are jointed at:-

- ☐ Commisural line
- ☐ Hinge line
- ☐ Diductor
- ☐ Posterior

55 of 100

210 PU_2016_367_E

The measure of suspended and colloidal matter in water like clay, silt, organic matter and microscopic organisms is:-

- ☐ pH
- ☐ Turbidity
- ☐ Conductivity
- ☐ Total dissolved solids

56 of 100

165 PU_2016_367_E

Thrust sheet that travelled very large distance along the thrust fault is known as:-

- ☐ Allochthonous unit
- ☐ Para-autochthonous unit
- ☐ Autochthonous unit
- ☐ Para-allochthonous unit

57 of 100

173 PU_2016_367_E

The inner core is most likely composed of:-

- ☐ silicon
- ☐ sulphur
- ☐ oxygen
- ☐ iron

58 of 100

208 PU_2016_367_E

A horizontal conduit used for intercepting and collecting groundwater by gravity flow is:-

- ☐ Drilled wells
- ☐ Infiltration galleries
- ☐ Collector wells
- ☐ Horizontal wells

59 of 100

139 PU_2016_367_E

The ability of a solid to allow fluids to pass through it is called:-

- ☐ conductivity
- ☐ transmissivity
- ☐ porosity
- ☐ permeability

60 of 100

195 PU_2016_367_E

The Paleozoic does not include the:-

- ☐ Ordovician
- ☐ Jurassic
- ☐ Mississippian
- ☐ Permian

61 of 100

240 PU_2016_367_M

A rock containing Phenocrysts of Olivine set in a fine grained matrix of pyroxene and plagioclase is known as:-

- ☐ Basalt
- ☐ Norite
- ☐ Diorite
- ☐ Gabbro

62 of 100

224 PU_2016_367_M

Electronegativity of elements increases:-

- ☐ From right to left of the Periodic table
- ☐ In atoms that have partially filled outer shell
- ☐ From left to right of the Periodic table
- ☐ With decrease in neutrons

63 of 100

235 PU_2016_367_M

Which one of the following is permitted in the Miller's indices?

- ☐ Real numbers
- ☐ Zero
- ☐ Infinity
- ☐ Fractions

64 of 100

248 PU_2016_367_M

A fold which is concave upward is called as:-

- ☐ Antiform
- ☐ Anticline
- ☐ Syncline
- ☐ Synform

65 of 100

253 PU_2016_367_M

If the strike of a dip slip normal fault is N30°E, then the trend of the net slip will be:-

- ☐ S30°W
- ☐ N60°E
- ☐ N30°W
- ☐ S60°E

66 of 100

238 PU_2016_367_M

Plagioclase having 30 to 50 % anorthite content is known as:-

- ☐ Oligoclase
- ☐ Andesine
- ☐ Anorthoclase
- ☐ Labradorite

67 of 100

246 PU_2016_367_M

Predominant magma that erupted during the Deccan Volcanism is:-

- ☐ Alkali basalt
- ☐ Trachyte
- ☐ Tholeritic basalt
- ☐ Andesite

68 of 100

227 PU_2016_367_M

Which of the following mineral is a chain silicate?

- ☐ Olivine
- ☐ Augite
- ☐ Anorthite
- ☐ Biotite

69 of 100

220 PU_2016_367_M

Continental crust is higher in elevation than oceanic crust because:-

- ☐ It is more buoyant than oceanic crust
- ☐ It is denser than oceanic crust
- ☐ It is older than oceanic crust
- ☐ It is younger than oceanic crust

70 of 100

255 PU_2016_367_M

Metamorphic grade refers to:-

- ☐ Intensity of metamorphism
- ☐ Texture and structure of the rock types
- ☐ Particular rock type
- ☐ Critical mineral assemblages

71 of 100

221 PU_2016_367_M

The average thickness of a lithospheric plate is approximately:-

- ☐ 8 km
- ☐ 100 km
- ☐ 35 km
- ☐ 5 km

72 of 100

225 PU_2016_367_M

Structurally quartz is a:-

- ☐ Framework silicate
- ☐ Isolated silicate
- ☐ Chain silicate
- ☐ Ring silicate

73 of 100

241 PU_2016_367_M

The major minerals present in granite are:-

- ☐ Nepheline, quartz and labradorite
- ☐ Microcline, quartz and albite
- ☐ Orthoclase, quartz and nepheline
- ☐ Sanidine, quartz and labradorite

74 of 100

242 PU_2016_367_M

Volcanic equivalent of the plutonic rock granodiorite is:-

- ☐ Dacite
- ☐ Rhyolite
- ☐ Rhodacite
- ☐ Andesite

75 of 100

251 PU_2016_367_M

If the axial planar cleavage is steeper than the dip of the fold limb, then limb is called:-

- ☐ Back limb
- ☐ Inverted limb
- ☐ Overturned limb
- ☐ Normal limb

76 of 100

254 PU_2016_367_M

Metamorphic facies are defined by the:-

- ☐ Particular rock type
- ☐ Pressure-Temperature condition
- ☐ Critical mineral assemblages
- ☐ Texture and structure of the rock types

77 of 100

232 PU_2016_367_M

Which one of the following mineral belongs to spinel group?

- ☐ Zircon
- ☐ Hematite
- ☐ Ilmenite
- ☐ Magnetite

78 of 100

259 PU_2016_367_M

Anhydrous rocks are characteristically present in rocks belonging to:-

- ☐ Greenschist facies
- ☐ Granulite facies
- ☐ Amphibolite facies
- ☐ Eclogite facies

79 of 100

230 PU_2016_367_M

Which one of the following minerals crystallize in the Orthorhombic system?

- ☐ Aragonite
- ☐ Rhodochrosite
- ☐ Dolerite
- ☐ Calcite

80 of 100

222 PU_2016_367_M

A crystal appears unchanged when rotated 180° . Such an axis of rotation is axis of:-

- ☐ 2-fold symmetry
- ☐ 3-fold symmetry
- ☐ 4-fold symmetry
- ☐ 1-fold symmetry

81 of 100

292 PU_2016_367_D

Which of the followings is NOT a supercontinent?

- ☐ Rodinia
- ☐ Gondwana
- ☐ Pangea
- ☐ Purana

82 of 100

261 PU_2016_367_D

In the triangular ACF diagrams used to designate the mineralogical and chemical composition of metamorphic facies, the 'A' apex represent:-

- ☐ $\text{Al}_2\text{O}_3 + \text{Na}_2\text{O} + \text{K}_2\text{O}$
- ☐ $\text{Al}_2\text{O}_3 + \text{Fe}_2\text{O}_3 - \text{K}_2\text{O}$
- ☐ $\text{Al}_2\text{O}_3 + \text{Fe}_2\text{O}_3 - \text{Na}_2\text{O} - \text{K}_2\text{O}$
- ☐ Al_2O_3

83 of 100

267 PU_2016_367_D

If an aggregate of sediment consists of particles that are all about the same size, it is said to be:-

- ☐ Sandstone
- ☐ Well sorted
- ☐ Lithified
- ☐ Poorly rounded

84 of 100

265 PU_2016_367_D

Sedimentary breccia is a rare rock type because:-

- ☐ Clay is less abundant than other sedimentary particles
- ☐ Sand deposits are typically well sorted
- ☐ Feldspars are chemically unstable
- ☐ Gravel is rounded quickly during transport

85 of 100

281 PU_2016_367_D

The process whereby hydrogen and hydroxyl ions of water replace ions in minerals is:-

- ☐ Hydrolysis
- ☐ Oxidation
- ☐ Carbonization
- ☐ Lateritisation

86 of 100

285 PU_2016_367_D

Geomorphic systems are:-

- ☐ Open systems
- ☐ Closed systems
- ☐ Isolated systems
- ☐ Open, Closed or Isolated systems

87 of 100

295 PU_2016_367_D

Which of the following is NOT located along a convergent plate-boundary?

- ☐ Andean Mountain chain
- ☐ Indonesian islands
- ☐ Red sea
- ☐ Himalaya mountain chain

88 of 100

279 PU_2016_367_D

In uniform flat rocks, drainage patterns tend to be:-

- ☐ Dendritic
- ☐ Radial
- ☐ Trellis
- ☐ Braided

89 of 100

260 PU_2016_367_D

The reaction Ferrosilite + Diopside = Enstatite + Hedenbergite, is a kind of:-

- ☐ Devolatilization reaction
- ☐ Oxidation reaction
- ☐ Ion-exchange reaction
- ☐ Solid-solid net-transfer reaction

90 of 100

290 PU_2016_367_D

Feldspar and quartz both have _____ structure but in feldspar some of the silica tetrahedral are replaced by _____.

- ☐ framework, Alumina tetrahedral
- ☐ double-chain, Na+Al
- ☐ single-chain, Mg-chain
- ☐ isolated tetrahedra, Na+Al

91 of 100

288 PU_2016_367_D

Miller indices, for a face whose Weiss symbols is $2a:3b:1c$, are:-

- ☐ (326)
- ☐ (321)
- ☐ (123)
- ☐ (236)

92 of 100

286 PU_2016_367_D

Which of the following minerals is most susceptible to chemical weathering?

- ☐ Quartz
- ☐ Olivine
- ☐ K-feldspar
- ☐ Biotite

93 of 100

297 PU_2016_367_D

Meteorites are generally originated from:-

- ☐ the asteroid belt
- ☐ rocky planets like Venus
- ☐ comets
- ☐ moon

94 of 100

272 PU_2016_367_D

Mud cracks are most likely to form by:-

- ☐ Rapidly changing patterns of erosion and deposition
- ☐ Fast-moving water that gradually slowed down
- ☐ Gently oscillating waves

- ☐ Periodic exposure to the air and drying out

95 of 100

273 PU_2016_367_D

Which would be least likely to indicate a desert environment?

- ☐ Limestone
- ☐ Large cross-beds
- ☐ Evaporite
- ☐ Mud cracks

96 of 100

282 PU_2016_367_D

Glacial clay is dominantly:-

- ☐ Kaolinite
- ☐ Illite
- ☐ Quartz
- ☐ Feldspar

97 of 100

299 PU_2016_367_D

Crust is generally thicker under the mountains. This observation can be explained by the theory of:-

- ☐ heat flow
- ☐ isostasy
- ☐ Deformations
- ☐ faster river-incision

98 of 100

276 PU_2016_367_D

A drainage pattern in which streams flow in and out of lakes with irregular flow directions is:-

- ☐ Rectangular
- ☐ Radial
- ☐ Longitudinal
- ☐ Deranged

99 of 100

283 PU_2016_367_D

Which of the following can act as a local base level?

- ☐ a stream
- ☐ a resistant strata
- ☐ a lake

- ☐ stream, lake and resistant strata

100 of 100

274 PU_2016_367_D

Which of these environments can produce cross beds?

- ☐ River Deltas
- ☐ Sand dunes
- ☐ Alluvial fans
- ☐ All of the above

Sr No.	MSc Applied Geology
1	Find the missing term in the following series: 3,15,?,63,99,143...?
Alt1	27
Alt2	35
Alt3	45
Alt4	56

2	Choose word from the given options which bears the same relationship to the third word, as the first two bears: Horse : Jockey :: Car : ?
Alt1	Mechanic
Alt2	Chauffeur
Alt3	Steering
Alt4	Brake

3	Food is to Fad as Religion is to.....?.....
Alt1	Crucification
Alt2	Notion
Alt3	Superstition
Alt4	Mythology

4	Select the lettered pair that has the same relationship as the original pair of words: Fond: Doting
Alt1	Sollicitous: Concern
Alt2	Verbose: Wordiness
Alt3	Flurry: Blizzard
Alt4	Magnificent: Grandiose

5	Which of the following is the same as Emancipate, Free, Release?
Alt1	Liberate
Alt2	Quit
Alt3	Pardon
Alt4	Ignore

6	Spot the defective segment from the following:
Alt1	I met one of the mountaineers
Alt2	that have returned
Alt3	to their base camp
Alt4	the last week

7	Choose the meaning of the idiom/phrase from among the options given: To call names
Alt1	to abuse
Alt2	to recall something
Alt3	to count the prisoners
Alt4	to take attendance

8	Our tour programme fell ----- because of inclement weather.
Alt1	through
Alt2	off
Alt3	out
Alt4	down

9	Choose the option closest in meaning to the given word: POIGNANT
Alt1	unbearable
Alt2	maximal
Alt3	pathetic
Alt4	sharp

10	Choose the antonymous option you consider the best: WANTON
Alt1	rational
Alt2	abstemious
Alt3	dearth
Alt4	deliberate

11	Six people K, L, M, N, O and P are sitting around a table as per the following conditions. i. N and O are opposite each other ii. K is to the right of M iii. L and K are opposite each other iv. N is to the left of P Who is to the left of L ?
Alt1	P
Alt2	M
Alt3	N
Alt4	O

12	<p>Study the following table carefully to answer the questions that follow (15 to 17) :Total number of employees in different departments in an organisation and (of these) percentage of females and males</p> <table><thead><tr><th>Department</th><th>Total number of employees</th><th>Percentage of female employees</th><th>Percentage of male employees</th></tr></thead><tbody><tr><td>IT</td><td>840</td><td>45</td><td>55</td></tr><tr><td>Accounts</td><td>220</td><td>35</td><td>65</td></tr><tr><td>Production</td><td>900</td><td>23</td><td>77</td></tr><tr><td>HR</td><td>360</td><td>65</td><td>35</td></tr><tr><td>Marketing</td><td>450</td><td>44</td><td>56</td></tr><tr><td>Customer Service</td><td>540</td><td>40</td><td>60</td></tr></tbody></table> <p>What is the total number of male employees in the IT and Customer Service departments put together?</p>	Department	Total number of employees	Percentage of female employees	Percentage of male employees	IT	840	45	55	Accounts	220	35	65	Production	900	23	77	HR	360	65	35	Marketing	450	44	56	Customer Service	540	40	60
Department	Total number of employees	Percentage of female employees	Percentage of male employees																										
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HR	360	65	35																										
Marketing	450	44	56																										
Customer Service	540	40	60																										
Alt1	115																												
Alt2	786																												

Alt3	768
Alt4	85

13	Study the following table carefully to answer the questions that follow (15 to 17) :Total number of employees in different departments in an organisation and (of these) percentage of females and males Department Total number of employees Percentage of female employees Percentage of male employees IT 840 45 55 Accounts 220 35 65 Production 900 23 77 HR 360 65 35 Marketing 450 44 56 Customer Service 540 40 60 What is the total number of employees in all departments put together ?
Alt1	3260
Alt2	3310
Alt3	3140
Alt4	3020

14	<p>Select the alternative that logically follows from the two given statements, but not from one statement alone:</p> <p>All Cats are dogs No dogs are rats</p>
Alt1	All cats are rats
Alt2	Some cats are rats
Alt3	No cat is rat
Alt4	None of the above

15	<p>In a certain code language, “ When did you come” is written as ‘ti na ki ja’. “Will you come again” is written as ‘na pa sa ja’ and “She will go” is written as ‘pa da ra’. How is “again” written in that code language ?</p>
Alt1	Na
Alt2	sa
Alt3	ja
Alt4	da

16	<p>In each of the following questions some statements are followed by two conclusions (i) and (ii). Read the statements carefully and then decide which of the conclusions follow beyond a reasonable doubt. Mark your answer as</p> <p>Statement: The aspirants should apply through a proper channel for permission Conclusions: (i) Those who apply through proper channel will get permission (ii) Those who do not apply through proper channel will not get permission</p>
Alt1	If only conclusion (i) follows

Alt2	If only conclusion (ii) follows
Alt3	If neither conclusion (i) nor (ii) follows
Alt4	If both the conclusions follow

17	The average height of 3 children is 115 cms. If the heights of 2 children are 117 cms. And 112 cms. Respectively, the height of the third child is
Alt1	112 cms.
Alt2	113 cms.
Alt3	115 cms.
Alt4	116 cms.

18	What is the 30% of 40% of $\frac{2}{5}$ th of 5000?
Alt1	500
Alt2	800
Alt3	240
Alt4	720

19	There are n persons in a room. Each one is shaking hand with the other . Ultimately there are 66 hand-shakes. Then n=
Alt1	11
Alt2	12
Alt3	16
Alt4	33

20	A problem is given to students 10 students choose option A ; 6 students choose option B ; 2 students choose option C; Gopal choose option D; 5 students did not answer. which option is correct if the teacher tells that One-Twelth of the class gave the correct answer.
Alt1	B
Alt2	A
Alt3	C
Alt4	D

21	The underground water that occurs within zone of aeration is called
Alt1	Plutonic water
Alt2	Vadose water
Alt3	Meteoric water
Alt4	Connate water

22	The horizontal entry into ore-body is called
Alt1	Adit
Alt2	Shaft
Alt3	Beach
Alt4	Pit

23	Which of the following has the least stiffness
Alt1	Basalt
Alt2	Quartz
Alt3	Limestone
Alt4	Sandstone

24	The Tethys is located between
Alt1	North America to South America
Alt2	North America to Eurasia
Alt3	Eurasia and Africa
Alt4	Antarctica and Australia

25	Exfoliation is a form of
Alt1	Mass wasting
Alt2	Chemical weathering
Alt3	Physical weathering
Alt4	Biochemical weathering

26	Natural levee is an example of
Alt1	Point bar deposits
Alt2	Channel fill deposits
Alt3	Flood plain deposits
Alt4	Flood basin deposits

27	Which of the following symmetry elements characterize pyrite crystal
Alt1	Four two fold axes
Alt2	Three two fold axes
Alt3	Two four fold axes
Alt4	One six fold axis

28	Which type of clay is used as drilling mud
Alt1	Bentonite clay
Alt2	Fullers clay
Alt3	Fire clay
Alt4	China clay

29	Which of the following is considered as secondary structure
Alt1	Foliation
Alt2	Cleavage
Alt3	Lineation
Alt4	Folds

30	Which one is biaxially positive mineral
Alt1	Biotitic
Alt2	Garnet
Alt3	Calcite

Alt4	Sillimanite
------	-------------

31	Which of the following has monoclinic crystal system
Alt1	Angite
Alt2	Pyrite
Alt3	Wollastonite
Alt4	Hypersthene

32	An oval to circular fold with strata dipping outward from a central point is
Alt1	Plunging fold
Alt2	Basin
Alt3	Recumbent syncline
Alt4	Dome

33	If deformed rock regain their shape when they are no longer under stressors condition
Alt1	Tensional
Alt2	Elastic
Alt3	Plastic
Alt4	Shear

34	The 'B' horizon of soil is the zone of
Alt1	Leaching
Alt2	Accumulation
Alt3	Un-weather parent material
Alt4	Organic matter accumulation

35	When several sinkhole coalesce, the result is
Alt1	a graben
Alt2	a solution valley
Alt3	a syncline
Alt4	a kettle

36	In uniform flat rock drainage, drainage pattern tend to be
Alt1	dendritic
Alt2	radial
Alt3	trellis
Alt4	braided

37	The gently sloping rock surface that forms at the base of mountain in arid regions
Alt1	Playa
Alt2	Graben
Alt3	Pediment
Alt4	Stratum

38	Which of the following can be used to determine the palaeo-current direction
Alt1	Mud crack
Alt2	Cross bedding

Alt3	Graded bedding
Alt4	Turbidity currents

39	Which would be least likely to indicate a desert environment.
Alt1	Large cross-bed
Alt2	Coal
Alt3	Evaporite
Alt4	Mud cracks

40	If you have 1 gm of carbon-14 after two half life you will have
Alt1	None
Alt2	$\frac{1}{2}$ gram
Alt3	2 gram
Alt4	$\frac{1}{4}$ gram

41	Why K-Ar cannot date younger rock ?
Alt1	All the Ar decayed
Alt2	All the 'K' decayed
Alt3	All the K-Ar leaked
Alt4	not enough 'K' has decayed yet

42	Dendrites are
Alt1	Pseudo fossils
Alt2	Fossil tree branches
Alt3	Fossil ferns
Alt4	Fossil moss

43	A sudden movement of a glacier caused by a sudden addition of snow on ice
Alt1	Surge
Alt2	Plastic deformation
Alt3	Calving
Alt4	Basal slip

44	In high grade meta-morphism, biotite melting indicates
Alt1	Rock cooling
Alt2	Rock hydration
Alt3	Rock uplifting
Alt4	Rock dehydration

45	Mantle xenoliths are observed in
Alt1	Granite
Alt2	Kimberlite
Alt3	Pegmatite
Alt4	Granulites

46	Convection is likely to occur in
Alt1	the mantle

Alt2	the out core
Alt3	both mantle and out core
Alt4	throughout the earth

47	Which type of faulting would be least likely to occur along mid-Atlantic ridges
Alt1	Normal
Alt2	Reverse
Alt3	Transform
Alt4	all of these could occur

48	The bulk modulus measures
Alt1	Resistance to change in shape
Alt2	Resistance to change in volume
Alt3	Resistance to change colour
Alt4	Resistance to flow of liquid

49	Transgression is caused by
Alt1	Decrease rate of sedimentation
Alt2	Increase rate of subsidence
Alt3	Rise in relative sea level
Alt4	Rise in eustatics sea level

50	Foreland Basins are associated with
Alt1	Crustal extension
Alt2	Thrust loading
Alt3	Thermal contraction
Alt4	Strike slip fault

51	Which of the following has the least electrical conductivity
Alt1	Diamond
Alt2	Sulphur
Alt3	Clay
Alt4	Anthracite

52	Which sampling method is resorted to, when the exposure to out crops are scarce
Alt1	Drilling
Alt2	Trenching
Alt3	Bulk sampling
Alt4	Well logging

53	Which of the following is not a closing ocean basin
Alt1	Black sea
Alt2	Red sea
Alt3	Caspian sea
Alt4	Mediterranean sea

54	The most favorable environment for preservation of fossil is
----	--

Alt1	Terrestrial
Alt2	Lacustrine
Alt3	Fluvial
Alt4	Marine

55	Which mineral shows the double refraction
Alt1	Calcite
Alt2	Quartz
Alt3	Feldspar
Alt4	Galena

56	Blind valley is formed due to
Alt1	Erosion
Alt2	Depositional
Alt3	Steep slope
Alt4	Surface runoff

57	Number of grain to grain contacts counted in the traverse is
Alt1	Packing density
Alt2	Packing proximity
Alt3	True porosity
Alt4	True density

58	Tenorites is an ore mineral of
Alt1	Iron
Alt2	Manganese
Alt3	Copper
Alt4	Lead

59	Ruby is a gem variety of
Alt1	Olivine
Alt2	Labradorite
Alt3	Quartz
Alt4	Corundum

60	Which era is called as "Age of Reptiles"
Alt1	Paleozoic Era
Alt2	Mesozoic Era
Alt3	Cenozoic Era
Alt4	Proterozoic Era

61	Rock salt is found in India
Alt1	Manali
Alt2	Mandi
Alt3	Solan
Alt4	Simla

62	A material is acidic in pH range of
Alt1	1 to 5
Alt2	1 to 7
Alt3	7 to 10
Alt4	8 to 14

63	Rock deformation is
Alt1	Brittle
Alt2	Ductile
Alt3	Both A & B
Alt4	Not known

64	The line of maximum curvature in a fold is known as
Alt1	Crest
Alt2	Axis
Alt3	Hinge
Alt4	Trough

65	Which of the following feature indicate faulting?
Alt1	Slickensides
Alt2	Grooves
Alt3	Breccia
Alt4	All of the above

66	The refractive index of the ocean water
Alt1	Decrease with salinity
Alt2	Increase with salinity
Alt3	Decrease with temperature
Alt4	Increase with temperature

67	The skeleton of a simple coral is
Alt1	Conical shape
Alt2	Triangular in shape
Alt3	Rounded in shape
Alt4	Flat in shape

68	Sinistral coiling is found in
Alt1	Pupilla
Alt2	Naticas
Alt3	Physa
Alt4	Trochus

69	The isotopes ^{232}Th Decays to
Alt1	^{206}Pb
Alt2	^{207}Pb
Alt3	^{208}Pb
Alt4	^{209}Pb

70	Which volcanic rock contain lowest percentage of silica
Alt1	Basalt
Alt2	Andesite
Alt3	Trachyte
Alt4	Rhyolite

71	Pahoehoe – structure is related to
Alt1	Block lava
Alt2	Ropy lava
Alt3	Pillow structure
Alt4	Lava-drain tunnel

72	The sedimentary rock without stratification is
Alt1	Shale
Alt2	limestone
Alt3	Sandstone
Alt4	Tillite

73	Chalk is a variety of
Alt1	Biosparite
Alt2	Sparite
Alt3	Biomicro
Alt4	Stromatolite

74	Mylonite rock shows the
Alt1	Cataclastic fabric
Alt2	Granulitic fabric
Alt3	Hornfelsic fabric
Alt4	Foliated fabric

75	Which facies are formed at very high pressure
Alt1	Blueschist facies
Alt2	Eclogite facies
Alt3	Sanidinite facies
Alt4	Both A & B

76	Chemical composition for marble
Alt1	CaCO_3
Alt2	MgCO_3
Alt3	Al_2O_3
Alt4	$\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$

77	First fishes and the first land plants appeared in the system
Alt1	Cambrian
Alt2	Ordovician
Alt3	Silurian

Alt4	Devonian
------	----------

78	Age of the Deccan traps is
Alt1	Lower cretaceous
Alt2	Lower cretaceous to Eocene
Alt3	Upper cretaceous to Eocene
Alt4	Eocene to Miocene

79	Who is known as the father of stratigraphy
Alt1	J.D.Dana
Alt2	T.H.Holand
Alt3	Smith
Alt4	L.L.Fermor

80	Pot holes are formed generally by
Alt1	Hydraulic action
Alt2	Abrasion or corrosion
Alt3	Attrition
Alt4	Corrosion

81	Deltas are formed in
Alt1	Initial stage of the river
Alt2	Youth stage of the river
Alt3	Mature stage of the river
Alt4	Old stage of the river

82	Wind does erosion in
Alt1	Attrition
Alt2	Abrasion
Alt3	Deflation
Alt4	All the above process

83	The strain at a point is a
Alt1	Scalar
Alt2	Vector
Alt3	Tensor
Alt4	None of the above

84	Generally aerial photographs are taken
Alt1	Horizontally
Alt2	Vertically
Alt3	At an angle of 45 degrees
Alt4	At an angle of 60 degrees

85	For good building stone, the wear should be less than
Alt1	0.01
Alt2	0.03

Alt3	0.05
Alt4	0.1

86	Most weather resesting rock is
Alt1	Quartzite
Alt2	Marble
Alt3	Limestone
Alt4	Slate

87	Acoustic impedance is the _____ of density and velocity
Alt1	Sum
Alt2	Product
Alt3	Difference
Alt4	Ratio

88	In a homogeneous anisotropic medium, the physical property varies
Alt1	with direction
Alt2	with position
Alt3	Both with position and direction
Alt4	Neither position nor direction

89	Radiometric dating is least useful for dating
Alt1	Volcanic rocks
Alt2	Plutonic rocks
Alt3	Metamorphic rocks
Alt4	Sedimentary rocks

90	The youngest sequence of Cretaceous formations is
Alt1	Trichy
Alt2	Ariyalur
Alt3	Uttatur
Alt4	Niniyur

91	The crystal form with highest number of faces
Alt1	Hexoctahedron
Alt2	Trisoctahedron
Alt3	Rhombdodecahedron
Alt4	Trapezohedron

92	A fold with two hinges
Alt1	Chevron fold
Alt2	Recumbent fold
Alt3	Box fold
Alt4	Parallel fold

93	Hawaiian Islands are formed by
Alt1	Convergent plate margins

Alt2	Divergent plate margins
Alt3	Mantle plumes
Alt4	Earthquakes

94	The maximum velocity of the Indian Plate is observed in
Alt1	Delhi
Alt2	Srinagar
Alt3	Maldives
Alt4	Goa

95	The volcanic equivalent of Granite is
Alt1	Rhyolite
Alt2	Dacite
Alt3	Trachyte
Alt4	Basalt

96	The texture formed by very high grade metamorphism is
Alt1	Phyllitic
Alt2	Migmatitic
Alt3	Schistose
Alt4	Granulitic

97	The volcanic glass formed by felsic lava is
Alt1	Quartz
Alt2	Tridimite
Alt3	Crystaboliite
Alt4	Obsidian

98	Gas leaked in Bhopal tragedy
Alt1	Methyl isocyanate
Alt2	Potassium isothiocyanate
Alt3	Ethyl isocyanate
Alt4	Sodium isothiocyanate

99	Biochemical Oxygen Demand measures
Alt1	Industrial pollution
Alt2	Air pollution
Alt3	Pollution capacity of effects
Alt4	Dissolved O ₂ needed by microbes to decompose organic waste

100	Which of the following is not an Aluminium Silicate?
Alt1	Kyanite
Alt2	Corundum
Alt3	Andalusite
Alt4	Sillimanite

Examination: M.Sc. Applied Geology

Section 1 - Section 1**Question No.1**

4.00

Bookmark ☐

Quartz watch works because of the _____ property of the quartz crystal present in it.

- ☐ Piezo-electric
- ☐ Electromagnetic
- ☐ Electric
- ☐ Pseudo Electric

Question No.2

4.00

Bookmark ☐

FCC is the abbreviation for _____

- ☐ Fast Colour Camera
- ☐ False Colour Camera
- ☐ First Colour Composite
- ☐ False Colour Composite

Question No.3

4.00

Bookmark ☒

The test of organic walled foraminifera is termed as:

- ☐ Hyaline
- ☐ Porcellaneous
- ☐ Tectinous
- ☐ Microgranular

Question No.4

4.00

Bookmark ☒

The diurnal variation of geomagnetic elements is due to a system of electric currents flowing in the

- ☐ Ionosphere
- ☐ Earth's outer core
- ☐ Oceans
- ☐ Inter-planetary medium

Question No.5

4.00

Bookmark ☐

_____ is a phenomenon of large-scale ocean circulation driven by density gradients created by surface heat and freshwater fluxes

- ☐ Hydrothermal circulation
- ☐ Alkaline circulation
- ☐ Hydrothermal flux
- ☐ Thermohaline circulation

Question No.6

4.00

Bookmark ☐

Magnetic behaviour of calcite is

- ☐ Ferrimagnetic
- ☐ Diamagnetic
- ☐ Paramagnetic
- ☐ Ferromagnetic

Question No.7

4.00

Bookmark ☐

An ideal structure for tunnels is _____

- ☐ Anticline
- ☐ Unconformity
- ☐ Syncline
- ☐ Fault

Question No.8

4.00

Bookmark ☒

Based on the information given answer the following question.

1. In a family of six persons, there are people from three generations. Each has separate professions and they like different colours. There are two couples.
2. Shyam is an Engineer and his wife is not a doctor and she does not like Red colour.
3. Chartered Accountant likes green colour and his wife is a teacher.
4. Manisha is the mother-in-law of Sunita and she likes orange colour.
5. Vimal is the grand father of Tarun and tarun is the Principal and likes black colour.
6. Nyna is the grand daughter of Manisha and she likes blue colour. Nyna's Mother likes white colour.

Which of the following is the correct pair of two couples?

- ☐ Cannot be determined
- ☐ Shyam-Manisha, Vimal-Sunita
- ☐ Shyam-Sunita, Vimal-Manisha
- ☐ Tarun-Nyna, Shyam-Sunita

Question No.9

4.00

Bookmark ☐

If the rake of net slip of an inclined fault is 90° , the fault is

- ☐ Transcurrent fault
- ☐ Oblique slip fault
- ☐ Dip slip fault
- ☐ Strike slip fault

Question No.10

4.00

Bookmark ☐

A system representing a regional isostatic compensation is known as

- ☐ Wadati
- ☐ Vening- Meinesz
- ☐ Airy-Heiskanen
- ☐ Pratt-Hayford

Question No.11

4.00

Bookmark ☐

Which of the following isotope is almost extinct on Earth

- ☐ ^{232}Th
- ☐ ^{26}Al
- ☐ ^{235}U
- ☐ ^{180}W

Question No.12

4.00

Bookmark ☐

A narrow inlet with steep cliffs, created by glacial erosion is known as _____

- ☐ Creek
- ☐ Fjord
- ☐ Kames
- ☐ Cirque

Question No.13

4.00

Bookmark ☐

The south-west monsoon is active during _____ in India

- ☐ January to April
- ☐ March to May
- ☐ October to December
- ☐ June-September

Question No.14

4.00

Bookmark ☒

Which one of the following is NOT a set of polymorphous minerals?

- ☐ Kyanite, sillimanite, andalusite.
- ☐ Graphite, anthracite, diamond
- ☐ Calcite, aragonite, vaterite
- ☐ Quartz, coesite, tridymite

Question No.15

4.00

Bookmark ☒

Since the _____ of the motor car, road accidents have increased dramatically.

- ☐ inception
- ☐ advent
- ☐ inauguration
- ☐ initiation

Question No.16

4.00

Bookmark ☒

The shape of the earth is described as

- ☐ Spheroid
- ☐ Prolate ellipsoid
- ☐ Oblate spheroid
- ☐ Ellipsoid

Question No.17

4.00

Bookmark ☒

If 5 men or 8 boys can do a work in 84 days. In how many days can 10 men and 5 boys can do the same work?

- ☐ 35
- ☐ 25
- ☐ 28
- ☐ 32

Question No.18

4.00

Bookmark ☐

If we know the bulk composition of the basalt and the composition of the olivine, we can estimate

- ☐ Depth of formation
- ☐ Pressure of formation
- ☐ Amount of water in magma
- ☐ The temperature of crystallisation

Question No.19

4.00

Bookmark ☐

Choose the correct pair of plutonic rock and its equivalent.

- ☐ Syenite- Rhyolite
- ☐ Diorite-Andesite
- ☐ Diorite- Dacite
- ☐ Granite- Granodiorite

Question No.20

4.00

Bookmark ☐

Nappe structures can be formed by

- ☐ Recumbent folding
- ☐ Normal faulting
- ☐ Over thrusting
- ☐ Both (a) and (c)

Question No.21

4.00

Bookmark ☐

On a 1:10,000 scale map, the length of a fault trace on a horizontal plane is represented as 5cm. The same on a 1:25,000 scale vertical aerial photograph is ____ cm.

- ☐ 2cm
- ☐ 3cm
- ☐ 4cm
- ☐ 2.5cm

Question No.22

4.00

Bookmark ☐

A two digit number is three times the sum of its digits. If 45 is added to it, the digits are reversed. The number is

- ☐ 31
- ☐ 35
- ☐ 27
- ☐ 32

Question No.23

4.00

Bookmark ☐

The angle between the present geographic north and geomagnetic north is

- ☐ 23.5°
- ☐ 7.5°
- ☐ 11.5°
- ☐ 1.5°

Question No.24

4.00

Bookmark ☐

The igneous rock that result due to the intergrowth of Na and K feldspars is

- ☐ Ophitic
- ☐ Perthitic
- ☐ Graphic
- ☐ Myrmekitic

Question No.25

4.00

Bookmark ☐

Narmada Valley is an example of _____

- ☐ Denudational valley
- ☐ Karst valley
- ☐ Hanging valley
- ☐ Graben

Question No.26

4.00

Bookmark ☒

There are _____ silicate minerals in Moh's scale of hardness

- ☐ 4
- ☐ 2
- ☐ 3
- ☐ 5

Question No.27

4.00

Bookmark ☒

The composition of a sandstone is Quartz: 55%, feldspar: 25%, rock fragments: 1% and matrix: 19%, petrographically the sandstone is classified as:

- ☐ Quartz wacke
- ☐ Lithic arenite
- ☐ Arkosic wacke
- ☐ Arkose

Question No.28

4.00

Bookmark ☐

At what depth olivine changes to spinel?

- ☐ 660km
- ☐ 410km
- ☐ 220km
- ☐ 150km

Question No.29

4.00

Bookmark ☐

Which of the following microfossil groups is generally found in deep sea below the Carbonate Compensation Depth?

- ☐ Coccoliths
- ☐ Radiolaria
- ☐ Foraminifera
- ☐ Ostracods

Question No.30

4.00

Bookmark ☐

Pentlandite is an ore mineral of

- ☐ Lead
- ☐ Zinc
- ☐ Nickel
- ☐ Copper

Question No.31

4.00

Bookmark ☐

Choose the correct meaning of the italicized idiom.

Those who work by *fits and start* seldom show good results.

- ☐ Irregularly
- ☐ Disinterestedly
- ☐ Regularly
- ☐ Rarely

Question No.32

4.00

Bookmark ☐

The two most abundant elements in the earth are

- ☐ Oxygen and iron
- ☐ Iron and silicon
- ☐ Iron and magnesium
- ☐ Oxygen and silicon

Question No.33

4.00

Bookmark ☐

These boys need some new books, _____?

- ☐ isn't it?
- ☐ do they?
- ☐ don't they?
- ☐ is it?

Question No.34

4.00

Bookmark ☐

The planet having maximum number of moons is

- ☐ Neptune
- ☐ Uranus
- ☐ Jupiter
- ☐ Saturn

Question No.35

4.00

Bookmark ☐

Which of the following geomorphic features is not related to desert environments?

- ☐ Esker
- ☐ Hamada
- ☐ Yardang
- ☐ Bajada

Question No.36

4.00

Bookmark ☒

Which number replaces the question mark?



- ☐ 11
☐ 12
☐ 10
☐ 9

Question No.37

4.00

Bookmark ☒

Choose the best antonym of the italicized word.

There are four chapters that are *extraneous* to the structure of the book.

- ☐ integral
☐ relevant
☐ needful
☐ important

Question No.38

4.00

Bookmark ☐

In high grade metamorphism, biotite breakdown indicates

- ☐ Rock dehydration
☐ Rock uplifting
☐ Rock cooling
☐ Rock hydration

Question No.39

4.00

Bookmark ☐

_____ processes are largely controlled by ground freezing and thawing leading to rock weathering.

- ☐ Polar
☐ Alpine
☐ Continental
☐ Periglacial

Question No.40

4.00

Bookmark ☒

Hawaiian Island chain is the result of

- ☐ Divergence of two oceanic plates
☐ Collision of two oceanic plates
☐ Intraplate hot spot activity
☐ Interplate hot spot activity

Question No.41

4.00

Bookmark ☐

In recent times, the number of cases of death by poisoning _____ sharply.

- ☐ has increased
- ☐ had increased
- ☐ increased
- ☐ have increased

Question No.42

4.00

Bookmark ☐

Choose the correct meaning of the italicized idiom.
You cannot throw *dust into my eyes*.

- ☐ Abuse me
- ☐ Terrify me
- ☐ Cheat me
- ☐ Hurt me

Question No.43

4.00

Bookmark ☐

The correct sequence of metamorphic facies with increasing depth in a subduction zone is

- ☐ Greenschist, blueschist, eclogite
- ☐ Greenschist, eclogite, blueschist
- ☐ Blueschist, eclogite, greenschist
- ☐ Blueschist, greenschist, eclogite

Question No.44

4.00

Bookmark ☐

Allochems in a limestone consist of

- ☐ Spar
- ☐ Micrite
- ☐ Bioclasts and ooids
- ☐ Ooids

Question No.45

4.00

Bookmark ☐

Which of the following is a feature of thrust fault terrain?

- ☐ Both (a) and (c)
- ☐ Decollement
- ☐ Klippe
- ☐ Nappe

Question No.46

4.00

Bookmark ☐

The intersection of the lines connecting opposite fiducial marks in an aerial photograph is known as

- ☐ Focal point
- ☐ Principal Point
- ☐ Camera Centre
- ☐ Zenith point

Question No.47

4.00

Bookmark ☐

Silica undersaturated minerals are

- ☐ Nepheline and albite
- ☐ Olivine and enstatite
- ☐ Leucite and orthoclase
- ☐ Olivine and leucite

Question No.48

4.00

Bookmark ☐

On crystallisation of anorthite, Sr concentration in the magma will

- ☐ Increase
- ☐ Decrease
- ☐ Remain constant
- ☐ Increase and then decrease

Question No.49

4.00

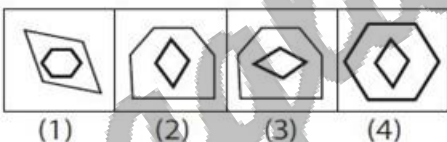
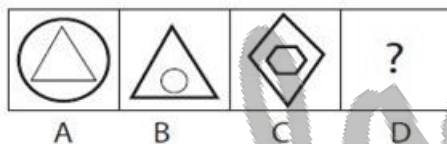
Bookmark ☐

Choose the best synonym of the italicized word. The prisoners of war signed the document under *coercion*.

- ☐ confusion
- ☐ security
- ☐ compulsion
- ☐ supervision

Question No.50

4.00

Bookmark ☐

- ☐ 1
- ☐ 4
- ☐ 2
- ☐ 3

Question No.51

4.00

Bookmark ☐

Choose a Proterozoic stratigraphic unit from the following

- ☐ Dharwar super group
- ☐ Gondwana super group
- ☐ Cuddapah super group
- ☐ Iron ore group

Question No.52

4.00

Bookmark ☐

The boundary between western and eastern Dharwar Craton is demarcated by

- ☐ Kolar suture zone
- ☐ Chitradurga Shear Zone
- ☐ Closepet granite
- ☐ Peninsular gneiss

Question No.53

4.00

Bookmark ☐

Which pair of rock types best describes the products of metamorphism in the contact aureole?

- ☐ Slate and schist
- ☐ Hornfels and skarn
- ☐ Schist and skarn
- ☐ Schist and hornfels

Question No.54

4.00

Bookmark ☐

Waves can be best described as _____

- ☐ Features that occur on the free surface of bodies of water and are a result of earth's gravity
- ☐ Features that occur below the free surface of bodies of water and are a result of the blowing wind
- ☐ Features that occur on the surface of waterbodies result due to the blowing wind
- ☐ Features that occur on the free surface of bodies of water and are a result of moon's gravity

Question No.55

4.00

Bookmark ☐

Silicate structure of mineral beryl is

- ☐ Nesosilicates
- ☐ Sorosilicates
- ☐ Inosilicates
- ☐ Cyclosilicates

Question No.56

4.00

Bookmark ☐

Himalaya started forming at

- ☐ 50Ma
- ☐ 300Ma
- ☐ 150Ma
- ☐ 500Ma

Question No.57

4.00

Bookmark ☐

The dominant process of heat transfer in the lithosphere is

- ☐ Conduction
- ☐ Radiation
- ☐ Convection
- ☐ Advection

Question No.58

4.00

Bookmark ☐

The most suitable radioactive method for dating Holocene events is

- ☐ Sm-Nd
- ☐ U-Pb
- ☐ Rb-Sr
- ☐ C-14

Question No.59

4.00

Bookmark ☐

Choose the missing term : AZ, GT, MN, ?, YB

- ☐ TS
- ☐ SH
- ☐ SX
- ☐ KE

Question No.60

4.00

Bookmark ☐

A landform that results from fall of rocks is called

- ☐ Debris flow
- ☐ Alluvial fan
- ☐ Talus slope
- ☐ Eskers

Question No.61

4.00

Bookmark ☐

A principle that tells us that any intrusive rock or layer is younger than the layers of sediments, is known as _____

- ☐ Principle of cross-cutting relationships
- ☐ Principle of lateral continuity
- ☐ Principle of original horizontality
- ☐ Principle of superposition

Question No.62

4.00

Bookmark ☐

An igneous rock with 50% olivine, 25% orthopyroxene and 25% clinopyroxene by mode will be called

- ☐ Wehrlite
- ☐ Harzburgite
- ☐ Lherzolite
- ☐ Dunite

Question No.63

4.00

Bookmark ☐

_____ is a mineral showing varying hardness.

- ☐ Calcite
- ☐ Kyanite
- ☐ Psilomelane
- ☐ Apatite

Question No.64

4.00

Bookmark ☐

Select hypothermal mineral deposit from the following:

- ☐ Molybdenite
- ☐ Galena
- ☐ Cinnabar
- ☐ Sphalerite

Question No.65

4.00

Bookmark ☐

The ash content in tertiary coal compared to Gondwana coal is,

- ☐ Higher
- ☐ Lower
- ☐ Equal
- ☐ Variable

Question No.66

4.00

Bookmark ☐

Horizontal slickensides are observed on the surface of a vertical fault. What is the type of fault?

- ☐ Reverse fault
- ☐ Normal fault
- ☐ Strike-slip fault
- ☐ Oblique fault

Question No.67

4.00

Bookmark ☒

Study the following information carefully and answer the question below it:

Aasha, Bhuvnesh, Charan, Danesh, Ekta, Farhan, Ganesh and Himesh are sitting around a circle, facing the centre. Aasha sits fourth to the right of Himesh while second to the left of Farhan. Charan is not the neighbour of Farhan and Bhuvnesh. Danesh sits third to the right of Charan. Himesh never sits next to Ganesh.

Who among the following sits between Ganesh and Danesh?

- ☐ Ekta
- ☐ Bhuvnesh
- ☐ Aasha
- ☐ Charan

Question No.68

4.00

Bookmark ☐

Gravity at the center of the earth is

- ☐ 980 gals
- ☐ 1068 gals
- ☐ Zero
- ☐ 432 gals

Question No.69

4.00

Bookmark ☐

A confined sandy aquifer has a thickness of 10m and transmissivity of 0.75m^2 per day. Its hydraulic conductivity is ____ m per day.

- ☐ 75m per day
- ☐ 0.0075 m per day
- ☐ 0.75m per day
- ☐ 0.075m per day

Question No.70

4.00

Bookmark ☒

If A+B means A is daughter of B,
 A-B means A is husband of B
 A × B means A is brother of B

From the statement P – Q + R × S, how is Q related to S?

- ☐ Niece
- ☐ Sister
- ☐ Mother
- ☐ None of these

Question No.71

4.00

Bookmark ☐

The correct pair of naturally occurring fissile isotope of Uranium is

- ☐ U^{236} and U^{237}
- ☐ U^{236} and U^{238}
- ☐ U^{235} and U^{238}
- ☐ U^{235} and U^{236}

Question No.72

4.00

Bookmark ☒

Study the following information carefully and answer the question below it

- (i) There is a group of five persons- A, B, C, D and E
- (ii) One of them is manual scavenger, one is sweeper, one is watchman, one is human scarecrow and one is grave-digger
- (iii) Three of them – A, C and grave-digger prefer tea to coffee and two of them – B and the watchman prefer coffee to tea
- (iv) The human scarecrow and D and A are friends to one another but two of these prefer coffee to tea.
- (v) The manual scavenger is C's brother

Who is a manual scavenger?

- ☐ A
- ☐ D
- ☐ B
- ☐ C

Question No.73

4.00

Bookmark ☒

Herringbone structure is generally formed in which of the following environment?

- ☐ Fluvial
- ☐ Lacustrine
- ☐ Tidal
- ☐ Aeolian

Question No.74

4.00

Bookmark ☐

Angle of repose is a term associated with _____

- ☐ Strike of beds
- ☐ Landslide
- ☐ Dip of beds
- ☐ Flood

Question No.75

4.00

Bookmark ☐

Knick points indicate changes in the

- ☐ Strike of a fault
- ☐ Stream gradient
- ☐ Attitude of beds
- ☐ Attitude of joints

Question No.76

4.00

Bookmark ☐

Pangea started breaking up in

- ☐ Mesozoic
- ☐ Palaeozoic
- ☐ Cenozoic
- ☐ Proterozoic

Question No.77

4.00

Bookmark ☐

Gutenberg discontinuity is located at a depth of around

- ☐ 150km
- ☐ 600km
- ☐ 2900km
- ☐ 1500km

Question No.78

4.00

Bookmark ☐

A fence diagram is used _____

- ☐ for graphical display of 2D sub-surface geological data
- ☐ for graphic display of 3-D data of stratigraphy and interpretations in 2D perspective view
- ☐ for displaying the boundaries of an outcrop.
- ☐ for 3D graphical display of water table in an area

Question No.79

4.00

Bookmark ☒

A good example of aquitard is _____

- ☐ Sandstone
- ☐ Fractured basalt
- ☐ Porous Limestone
- ☐ Clay

Question No.80

4.00

Bookmark ☐

What rock would you expect to find at the base of a typical oceanic plate?

- ☐ Diorite
- ☐ Gabbro
- ☐ Peridotite
- ☐ Basalt

Question No.81

4.00

Bookmark ☐

Blue schist facies metamorphism in mafic rock is characterised by the presence of which mineral?

- ☐ Glauconite
- ☐ Pyrophyllite
- ☐ Glaucophane
- ☐ Pyrope

Question No.82

4.00

Bookmark ☐

The crystal system of biotite is

- ☐ Monoclinic
- ☐ Hexagonal
- ☐ Triclinic
- ☐ Tetragonal

Question No.83

4.00

Bookmark ☒

Choose the right pair from the following.

- ☐ Ninetyeast ridge- Rift
- ☐ Pranhita-godavari basin- Subduction
- ☐ Makran coast- transform fault
- ☐ Carlsberg ridge- spreading centre

Question No.84

4.00

Bookmark ☐

Which of the following pairs of minerals exhibit exsolution texture?

- ☐ Sphalerite- Pyrrhotite
- ☐ Pyrite- Chalcopyrite
- ☐ Pyrite- Pyrrhotite
- ☐ Hematite- Magnetite

Question No.85

4.00

Bookmark ☐**Statement:** "A Car is required on rent"-An Advertisement**Assumptions:**

I. All types of Vehicles are available on Rent

II. People will respond to the advertisements

- ☐ If both I and II are implicit
- ☐ If only assumption I is implicit
- ☐ If only assumption II is implicit
- ☐ If neither I nor II is implicit

Question No.86

4.00

Bookmark ☐

Rust-coloured oxide and hydroxide minerals of iron and manganese that cap an ore deposit is called:

- ☐ Terra rosa
- ☐ Laterite
- ☐ Bauxite
- ☐ Gossan

Question No.87

4.00

Bookmark ☐

Which of the following mineral crystallise in monoclinic system?

- ☐ Tourmaline
- ☐ Beryl
- ☐ Pigeonite
- ☐ Pyrite

Question No.88

4.00

Bookmark ☐

Identify the mineral assemblage of greenschist facies metamorphism in mafic rock.

- ☐ chlorite + albite + diopside ± epidote, biotite
- ☐ chlorite + albite + epidote ± actinolite, quartz
- ☐ chlorite + albite + plagioclase + biotite
- ☐ chlorite + albite + quartz + stilpnomelane + muscovite

Question No.89

4.00

Bookmark ☒

Choose the best antonym of the italicized word.

Many snakes are actually *innocuous*.

- ☐ ferocious
- ☐ harmful
- ☐ deadly
- ☐ poisonous

Question No.90

4.00

Bookmark ☐

The void ratio (in percentage) of sandstone is 25. Its porosity in percentage is:

- ☐ 10%
- ☐ 20%
- ☐ 30%
- ☐ 40%

Question No.91

4.00

Bookmark ☐

If in a certain language, GRASP is coded as BMV NK, which word would be coded as CRANE?

- ☐ HWFSJ
- ☐ XMVIZ
- ☐ FUDQH
- ☐ BQZMD

Question No.92

4.00

Bookmark ☐

Name the minerals of Moh's scale of hardness which fall in the hexagonal crystal system.

- ☐ Talc, Gypsum, Calcite, Quartz
- ☐ Topaz, Corundum, Fluorite, Quartz
- ☐ Calcite, Apatite, Fluorite, Topaz
- ☐ Calcite, Apatite, Quartz, Corundum

Question No.93

4.00

Bookmark ☐

Choose the correct chemical (general) formula for garnet.

- ☐ $X_3Y_2(SiO_4)_3$
- ☐ $X_3Y_2SiO_4$
- ☐ $X_3Y_2(SiO_4)_2.OH$
- ☐ $X_3Y_2(SiO_4)_2$

Question No.94

4.00

Bookmark ☐

Diamond bearing conglomerates are associated with _____ in India

- ☐ Faults in Vindhya
- ☐ Unconformity in Vindhya
- ☐ Faults in Cuddappahs
- ☐ Unconformity in Cuddappahs

Question No.95

4.00

Bookmark ☐

Snowball garnet is

- ☐ Pre-tectonic
- ☐ Contact metamorphic
- ☐ Post-tectonic
- ☐ Syn-tectonic

Question No.96

4.00

Bookmark ☐

The wavelength is visible part of the EMR is _____

- ☐ 1.0 to 2.5 microns
- ☐ 0.4 to 0.7 mm
- ☐ 1.0 to 2.5 mm
- ☐ 0.4 to 0.7 microns

Question No.97

4.00

Bookmark ☐

Who proposed the principle "the present is the key to the past"?

- ☐ Carl von Linnaeus
- ☐ William Smith
- ☐ Alcide d'Orbigny
- ☐ James Hutton

Question No.98

4.00

Bookmark ☐

Didymograptus, an extinct genus of graptolites thrived during_____

- ☐ Late Cambrian to Middle Ordovician
- ☐ Devonian
- ☐ Middle Ordovician to Late Ordovician
- ☐ Late Ordovician to Late Silurian

Question No.99

4.00

Bookmark ☐

Which of the following mineral cannot be used as an abrasive?

- ☐ Garnet
- ☐ Corundum
- ☐ Gypsum
- ☐ Quartz

Question No.100

4.00

Bookmark ☐

Statements: All tools are books, Some books are pens.

Conclusion:

I. Some tools are pen

II. Some pens are books

- ☐ If only conclusion II follows
- ☐ If neither I nor II follows
- ☐ If only conclusion I follows
- ☐ If either I or II follows