

- Q)The tidal hypothesis about the origin of the solar system was propounded by--> **British astronomer Jeans**
- Q)Half life is term used for--> **The time taken for one half quantity of a radioactive element to decay to a stable end product**
- Q)The Mohorovicic discontinuity demarcates--> **The crust from the mantle**
- Q)Soil profile indicates--> **The character of weathering as reflected by the type of weathered products upto a certain depth**
- Q)The ozone layer is located in--> **Stratosphere**
- Q)Carbonation is the action of--> **Atmosphere carbon dioxide mixed with moisture on rocks of suitable composition**
- Q)The astronomical unit expresses the distance of--> **The planet earth from the sun**
- Q)One astronomical unit is equal to--> **149.6 million km**
- Q)Atolls is a term used for--> **Deposits of coral reef group surrounding a central water body or lagoon**
- Q)An oxbow lake is actually--> **An isolated, detached loop of a meandering river in lower regions**
- Q)Hanging valleys develop when--> **Rate of erosion is greater in the main valley compared to the side valley**
- Q)Tillite is the name given to--> **A rock like mass made of boulders and clay showing no evidence of assortment and indicating direct deposition from glacial ice**
- Q)Base level of river erosion means--> **The lowest level up to which a stream can theoretically cut down its channel**
- Q)Saltation is a term used for expressing--> **A method of sediment transport by wind and water in a series of jumps or in skidding and sliding manner**
- Q)Loess is the name given to--> **Extensive deposits of silt and clay made by wind in many areas over the years**
- Q)The rate of downward movement in a glacier is--> **Greater at the top compared to at the base**
- Q)The age of the earth is estimated at about--> **4.6 billion years**
- Q)Which of the following have longer axes, unstratified drift deposits forming small rounded hills and its axes parallel to the direction of flow of ice-->
- Q)Examples of allotropy are as follows--> **Diamond, graphite**
- Q)The study of past life in the form of animal and plant fossils preserved in rocks, mainly sedimentary--> **Palaeontology**
- Q)Stalactites and stalagmites are features of--> **Ground water deposition in caves formed by precipitation from dripping water rich in dissolved calcium carbonate**
- Q)The earth rotates on its own axis taking--> **23 hours, 56 minutes, 4.0996 seconds**
- Q)Roche moutonee is a feature of--> **Glacial erosion**
- Q)Glaciers are downward moving bodies of--> **Mostly ice and may be some at the top**
- Q)To determine the size and shape of the earth in cooperation with other geological sciences, in order to study the internal structure of the earth--> **Geodesy**
- Q)The study which deals with the structure, texture, and origin--> **Petrology**
- Q)The sri sailam dam has been constructed across the river Krishna, the mineral deposits at the river is as--> **Quartzite**
- Q)St. francis dam of California is the one of the examples of failures of dams due to--> **Geological conditions and not due to technical lapses**

- Q)The study of natural caves and their exploration also includes geological study of formation, morphology, and mineral deposits like tufa, travertine, etc--> **Speleology**
- Q)Which of the following, is a regular feature results in which the obstructing block boldly faces the direction of ice--> **Crag**
- Q)The study of soils which are the products of rock decay--> **Pedology**
- Q)It is a form of bar that connects a headland and an island is known as--> **Tombola**
- Q)The final picture of the internal structure of the earth as developed from the study of the seismic wave records of the earth divides it into three well defined--> **The crust, the mantle and the core**
- Q)The upper layer between 2-10 km thick and is of low density--> **2.2 g/cc**
- Q)The seismic waves attain the velocities of the crust between--> **5 to 6.2 km/sec**
- Q)The oceanic crust is estimated with an average density of--> **3.00 g/cc**
- Q)The mantle core boundary has a very high density above--> **10 g/cc**
- Q)The material below Moho forms a nearly homogeneous zone till a depth of--> **2900 km**
- Q)The inner core ranges nearly between--> **4800 km and 6370 km**
- Q)_____ is composed mainly of gases that are collectively.--> **Atmosphere**
- Q)The heavier particles of sand, pebbles, etc which are moved along the bed of a river in different ways.--> **Bed load**
- Q)The products of weathering which has soluble material is--> **Orthoclase**
- Q)The weathering effect of which forms hydrous aluminium silicate and soluble silica--> **Al₂O₃**
- Q)_____ is not easily soluble in pure water but carbonated water dissolves the rock--> **Limestone**
- Q)Pyrite is a natural and common iron mineral present in many rocks in small amounts, may undergo--> **Oxidation and hydration**
- Q)The chemical composition of the inner core, the hypothesis that it is made up chiefly of--> **Iron and nickel**
- Q)Some rocks contain one or more minerals that are _____ in water to some extent--> **Soluble**
- Q)An example of metamorphic rocks--> **Arkose**
- Q)An example of clastic sedimentary rocks--> **Grey wacke**
- Q)The mineral with a hardness of nine(9) in Mohs scale is--> **Corundum**
- Q)An example of non-clastic sedimentary rocks--> **Chalk**
- Q)Coal deposits are formed due to--> **accumulation of vegetable matter in a proper sedimentary environment and its subsequent bio-chemical-mechanical transformations**
- Q)An example of igneous rocks--> **Apatite**
- Q)The mineral having the chemical composition of SiO₂--> **Quartz**
- Q)The mineral Quartz having the weathering effect of the following--> **Remains undecomposed**
- Q)It is near the surface zone and is characterised by low temperature and strong shear stress is--> **the epi zone**
- Q)Rocks which contain _____ or more of dark minerals fall in category of ultramafic--> **90%**
- Q)_____ is a typical index mineral of high grade metamorphism--> **hypersthene**
- Q)Oolitic structure explains--> **Presence of fish-egged size concretions in rocks**
- Q)The rocks having the colour index of 0-30 %--> **Leucocratic**
- Q)The rocks having the colour index of 30-60 %--> **Mesocratic**
- Q)Silicic is a term for igneous rock in which SiO₂ is--> **65%**
- Q)It is structural feature of many metamorphic rock having parallel subparallel bands--> **schistosity**
- Q)Stress minerals are characterized with--> **Flaky, platy and elongated shapes**

- Q)The formation of placer deposits is primarily due to--> **The sorting power of the transporting medium and the inherent physical properties of the placer mineral**
- Q)Ladder veins are--> **Sedimentary deposits formed due to precipitation of minerals in pre existing fractures**
- Q)Plutonic rocks are always formed from the cooling of--> **Magma at great depths below the surface of the earth**
- Q)Metamorphic is a process of change in rocks in--> **Pre existing rocks may undergo changes in structure, texture and even composition under the changed conditions of heat, pressure and chemically active fluids remaining in solid state all the time**
- Q)A metamorphic facies--> **Is indicative of metamorphic environment through which pre existing rocks have passed to form metamorphic rocks of different types**
- Q)Kankar is a variety of--> **Lime stone**
- Q)Flint is a variety of sedimentary rocks formed by--> **Chemical process of precipitation from sea water rich in amorphous silica**
- Q)A common varieties of cryptocrystalline silica is a dull red, yellow, almost amorphous variety of silica--> **Jasper**
- Q)The physical properties that are common to all the minerals of mica group are--> **Basal cleavage, hardness, vitreous luster**
- Q)Muscovite is a mineral belongs to the mica group of--> **Potash mica**
- Q)The naturally formed hot molten material that is believed to exist at certain depths below the surface of the earth is--> **Magma**
- Q)Poiklitic texture is characterized with--> **Presence of small sized crystals dispersed within the body of a large size mineral**
- Q)A common varieties of cryptocrystalline silica is a dull opaque variety of chalcedony breaking with a characteristic conchoidal fracture--> **Flint**
- Q)The term lamination is used to express--> **The stratified nature of fine-grained sedimentary rocks in which individual layers are very thin**
- Q)Lopoliths are defined as--> **Concordant igneous bodies associated with natural basins that is, those sedimentary formations which are inclined towards a common centre**
- Q)The mineral occurs in a quite a few coloured--> **Oriental Topaz**
- Q)The crystal system of Hornblende is--> **Monoclinic**
- Q)The recrystallized variety of calcite mineral is most--> **Magnesite**
- Q)Amethyst is the common type of quartz distinguished on this basis--> **Purple or violet**
- Q)Amphibole group of mineral have been found to exhibit this type of--> **Double chain extension**
- Q)The crystal system of dolomite mineral is--> **Hexagonal, rhombohedral**
- Q)The relationship of a crystal face with the crystallographic axes is expressed in simple whole numbers, which are called--> **Indices**
- Q)The chemical composition of talc is--> **H₂ Mg₃ (SiO₃)₄**
- Q)A dull opaque variety of chalcedony breaking with a characteristic conchoidal fracture is
____--> **Flint**
- Q)The mineral occurs in a quite a few coloured varieties of the transparent, red variety of corundum--> **Ruby**
- Q)The hardness of Augite is--> **5-6**
- Q)The occurrence of calcite mineral is most common rock forming minerals in--> **Sedimentary**

- Q)A solid polyhedral form of a substance bounded by smooth geometrical surfaces is--> **Crystal**
- Q)What is the form of beryl--> **Hexagonal**
- Q)Dip is defined as--> **The inclination of a layer of rock with a horizontal plane**
- Q)The chemical composition of zircon--> **Zr Si O₄**
- Q)The minerals commonly show inter penetration or contact type of twinning--> **Carlsbad law**
- Q)The colour of galena--> **Lead grey**
- Q)The chemical composition of chromite--> **Fe Cr₂ O₄**
- Q)The chemical composition of ilmenite--> **Fe Ti O₃**
- Q)Tectonic valleys are--> **Subsidence of a central block along parallel faults or due to synclinal folding**
- Q)Block mountains are--> **Tectonic mountains**
- Q)Folds are formed by--> **Deformation of rocks**
- Q)Drag folds are repeated in depth in which thickness of all the involved layers--> **Has remained constant**
- Q)Plunge is the angle which is determined in a fold with respect to--> **Axial plane of fold**
- Q)Drag folds are developed in the layers--> **Which are competent and surrounded by competent layers on both sides**
- Q)In isoclinal folds, all axial planes--> **May be vertical, inclined or horizontal, but all are parallel**
- Q)Primitive Indians knew to select hard and durable rocks as is evident from--> **The stone weapons they used and stone made domestic articles**
- Q)The structure that proves that ancient Indians knew the art of engineering even in the distant past is--> **The sluice structure for water supply dating 500BC and the embankments and canals from the first century AD**
- Q)The relic found at dholavira was construction in--> **Third millennium BC**
- Q)Caldera is a term used to express--> **Very large sized craters that have collapsed with the passage of time**
- Q)Pediplains are formed due to--> **Deposition of material transported by wind, water and ice**
- Q)In the investigation of a site for construction of an engineering structure, an engineering geologist aims at--> **Stability of structure and Economy of its construction**
- Q)The ancient city of dholavira was in--> **Gujarat**
- Q)Columnar joints are formed by cooling of rocks and found in--> **Basal of the deccan traps**
- Q)In a fault, one fault block moves up dip of the fault plane relative to other blocks. The type of fault is--> **Reverse fault**
- Q)The top rocks of an anticline are found to have joints inclined to axial plane formed by--> **Tension**
- Q)According to silpa sastra written in the sixth century AD--> **Rocks can be classified into three divisions and Porous and decomposed stones are not suitable for construction purposes**
- Q)The first micro hydroelectric project of india was constructed in Darjeeling, west Bengal as early as--> **1897**
- Q)The rock type that was used in construction of sanchi stupa is--> **Buff sand stone**
- Q)The joints in a dam foundation ceat the problem of--> **Uplift, stability and Leakage**
- Q)Hade indicates in a fault--> **An angle of inclination of the fault plane with the vertical**
- Q)An unconformity is actually--> **A surface of erosion or non deposition or both as detected in a sequence of rocks**
- Q)The type of weathering forms in granite by the process of--> **Release of pressure and Hydration**

Q)In an engineering project, the presence of syncline creates problems of--> **Seepage and leakage in a dam foundation and Constant seepage and sudden rush of water and flooding inside**

Q)The network of closely-spaced cracks and fissures filled with mineral matter--> **Stockwork joints**

Q)An interruption in sedimentation when there was a brief pause in deposition during which time there was little erosion before sedimentation--> **Diastem**

Q)A pattern of vertical polygonal joints typically developed in a large body of volcanic rock which divides it into regularly-spaced large prismatic columns are--> **Columnar joints**

Q)A fault is essentially a fracture--> **Along which some definite amount of relative displacement has taken place**

Q)Block mountains is the term used for--> **Mountains created due to slipping of side blocks along parallel strike faults leaving behind raised blocks**

Q)Large scale jointing may produce certain landforms like scarps or they may form character features like--> **Columnar jointing in basaltic lavas resulting in vertical polygonal columns as in deccan traps**

Q)Two sets of joints nearly at right angle to one another are said to be--> **Conjugate joints**

Q)The lower beds of the upper sequence extend beyond those of the younger ones--> **Offlap**

Q)Occurrence of a regolith between _____ formations--> **Two**

Q)The younger strata above the plane of unconformity surface--> **Overlap**

Q)The uncertain unconformity with no discernible erosional surface which in contact is a simple bedding plane and in which the beds above and below the break is parallel--> **Paraconformity**

Q)The break that indicates a considerable time gap marked by visible evidence of erosion of the older beds across which there is no change in strike and dip in formations below and above the plane of separation--> **Disconformity**

Q)Two groups of rocks occur one upon the other whose bedding planes are not parallel and occur at different angles--> **Angular unconformity**

Q)The term used when younger strata rest on an eroded surface of older, massive igneous and metamorphic rocks--> **Nonconformity**

Q)A steep fault in which the block movement is essentially horizontal or low angle--> **Wrench fault**

Q)An elongated block of rock that has been tectonically downthrown between two parallel faults relative to the surrounding area--> **Graben**

Q)Discordance of areal distribution of rocks or structures after plotting on a geological map of a region, making sure that this is due to--> **Faulting**

Q)A series of strata whose strike and dip are the same; it may include monoclines and isoclinally folded beds--> **Homocline**

Q)The fold has straight limbs and a sharp hinge; several such folds generally occur together--> **Chevron or zigzag fold**

Q)The large composite anticline of regional extent that is made up of a series of smaller folds--> **Anticlinorium**