

SECOND YEAR HIGHER SECONDARY EXAMINATION MARCH 2019

SUBJECT : GEOLOGY

CODE. NO: SY 29

Qn No	Sub Qns	Answer Key/Value Points	Score	Total
1	a)	Bauxite/Clay/Laterite/Kaoline	1	3
	b)	Asphalt/Tar sand/Grease/Tar/oil shale	1	
	c)	Gypsum/Rock salt/Halite	1	
2	a)	Fractional distillation/refining/Purification/Distillation	1	4
	b)	Outcrop	1	
	c)	Angular unconformity/any other type of unconformity	1	
	d)	Historical Geology/Palaeontology/Stratigraphy	1	
3		Volcanoe: ashflow	1	4
		Correlation: Fossils	1	
		Saline water intrusion; Over exploitation of ground water	1	
		Sand mining: Erosion of river banks	1	
4		Ore:- Mineral containing exploitable quantities of one or more metals		

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		Gangue:- Worthless non-metallic minerals associated with ores Definition/examples of ore and gangue. Explanation with example of ore or gangue.		2
5		Clay:- Ceramic industry, electrical insulator, paper, paint, medicine, cosmetics, etc. Graphite:- Heat resistant, pencils, refractory, lubricant, etc. Any two uses of clay or graphite/any one use for clay and graphite		2
6		Mafic:- Rich in iron and magnesium, low in silica Felsic:- Rich in silica, low in iron and magnesium. Mafic:- dark colour/denser/basic Felsic:- lighter/light in colour/acidic Any two point on felsic/mafic rocks		2

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7		Fossil fuels:- finite resources, non-renewable, developmental activities depend upon fossil fuels, etc. (Any <u>relevant</u> points on fossil fuels)		2
8		Transformation of one type of rock into other over years. Explanation/diagram/examples of three types of rocks/Formation of rocks - any three points	3	3
9		Relative dating:- determination of age relatively / tells which one is younger or older / comparison of events	1	
		Absolute age:- Actual age of rocks or events in years	1	2
10		Chemicals, fertilizers, pesticides, septic leakage, hazardous waste, storage tanks, biological pollutants (bacteria, virus), industrial waste, landfill (Any two sources/points)	2	2
11		Sea level change, climatic changes, melting of ice, changes in ecosystem, atmospheric pollution		

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12		coastal erosion, environmental problems, floods, droughts, etc. (Any two points) Focus:- Point of origin of earthquake / Actual location / Point beneath the surface Epicerter:- location at the earth's surface / lying above the focus on the surface / most affected areas during an earthquakes (Any two points on focus / types of earthquakes / epicenter)	2	2
13		Circum Pacific belt Mediterranean / Himalayan / Trans Asiatic / Indonesian belt (Name of any two seismic belts) or Explanation on seismic belts	2	2
14		Tsunami:- Seismic sea waves, giant waves, caused by under water earthquakes, volcanic eruption etc. Any three points on tsunami (causes, effects, characteristics)	3	3

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15		Size, shape, characteristics of grains forming rocks; Any three points/Explanation/names of igneous rock textures such as coarse grained, phaneritic, etc.	3	3
16		Magmatic Segregation, magmatic dissemination, pegmatite deposits Explanation/names/diagrams/examples of magmatic deposits. Any three points on magmatic deposits or its types	3	3
17		Elastic, plastic and rupture/ Elastic, ductile and brittle (Names, explanation, figure, examples of rock deformation). - 3 points	3	3
18		No, Preservation of unaltered hard parts, chemical alteration, permineralization, carbonisation, replacement, petrification, imprints, moulds, casts, trace fossils, preservation of soft parts. (Any two modes or examples of fossilisation/Any three points on modes or conditions of fossilisation)	2	3

19	Modification geological feature, structural damages, ground rupture, ground failure, landslides, tsunami, fire, Seiches, sea quakes, liquefaction, etc (any three effects of earthquakes)	3	3
20	Earthquake waves Body waves and surface waves Any three points on seismic waves, types of seismic waves	1 2	3
21	Management, mitigation, prevention of disasters Preparation, response, recovery and mitigation OR Any three points on disaster management cycle, phases of disaster management / diagrams measures taken before, during and after disasters	1 2	3
22	Types of igneous, sedimentary and metamorphic rocks. Any four classes of rocks such as plutonic, clastic, foliated rocks		4

		OR Subtypes of any one type of rocks (description).		
23	Yes	Peat, lignite, bituminous coal and anthracite OR Explanation/names/characteristics of types of coal/its importance	1 3	4
24		Compression/ductile deformation Types of folds - three types OR (Figure/explanation/Names of any four types of fold)	1 3	4
25		Deforestation, land subsidence, land slides, water air and atmospheric pollution, acid mine drainage, lowering of ground water table, Loss of habitat and bio diversity Any four <u>relevant</u> points on effects of mining/mining/quarrying.		4
26	(a)	Flood:- Heavy rain fall, less infiltration, deforestation, surface run-off. Any two points on causes/effects of floods	2	
	(b)	Land slides:- Afforestation, proper drainage, scientific engineering approaches, proper land use. Any two points on causes or mitigation or effects of landslides	2	4