

Total No. of Questions: 6

Total No. of Printed Pages: 3

Enrollment No.....



Faculty of Engineering
End Sem (Even) Examination May-2022
CE3CO03 Engineering Geology

Programme: B.Tech.

Branch/Specialisation: CE

Duration: 3 Hrs.

Maximum Marks: 60

Note: All questions are compulsory. Internal choices, if any, are indicated. Answers of Q.1 (MCQs) should be written in full instead of only a, b, c or d.

- Q.1 i. Study of Earthquake waves are useful in determination of: **1**
(a) Age of the Earth (b) Origin of the Earth
(c) Interior of the Earth (d) All of these
- ii. Phenomena of Meandering is associated with- **1**
(a) Sea Errosion (b) Wind Errosion
(c) River Errosion (d) None of these
- iii. $a_1 = a_2 = a_3 = 90^\circ$ denotes- **1**
(a) Cubic system (b) Triclinic system
(c) Tetragonal system (d) None of these
- iv. Most abundant rock farming Mineral in the Earth Crust is? **1**
(a) Felspar (b) Quartz (c) Mica (d) None of these
- v. Conglomerate is a type of- **1**
(a) Igneous rock (b) Sedimentary rock
(c) Metamorphic rock (d) None of these
- vi. Most of the Indian Coal field belong to- **1**
(a) Vindhyan group (b) Deccan traps
(c) Gondwana group (d) None of these
- vii. A dip has- **1**
(a) Only direction
(b) Only magnitude
(c) Both direction and magnitude
(d) None of these
- viii. Hanging wall and footwall belongs to- **1**
(a) A fold (b) A joint (c) A fault (d) All of these

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- ix. Which of the following reservoir contains the most pure water? **1**
 (a) Rivers (b) Lakes (c) Biosphere (d) Groundwater
- x. The top of water saturated zone is known as- **1**
 (a) The Water Table (b) Aquitard
 (c) The Aquifer (d) None of these
- Q.2 i. Define weathering and its types. **4**
 ii. Write about the origins of earth, explain any one hypothesis of its origins (with neat diagram). **6**
- OR iii. Write short notes on: **6**
 (a) Earthquakes and its types
 (b) Draw neat diagram and briefly explain interior of earth.
- Q.3 i. Draw Geological Time Scale. **2**
 ii. Name Various crystal systems and explain Cubic System with axial diagram and mineral examples. **8**
- OR iii. Write physical properties of: **8**
 (a) Talc (b) Calcite (c) Gypsum (d) Quartz
- Q.4 i. Define rocks and write their classification. **4**
 ii. Write short notes on: **6**
 (a) Geographic Time Scale (b) Extrapeninsular India
- OR iii. Write short notes on: **6**
 (a) Agents of Metamorphism.
 (b) Formation of Sedimentary rocks.
 (c) Classification of Igneous rocks.
- Q.5 i. Define Unconformity and Explain its Types (with diagram). **4**
 ii. Define folds and give their detailed classification with diagram. **6**
- OR iii. Write notes on (with diagram): **6**
 (a) Parts of a Fold (b) Symetric and Asymetric Folds
 (c) Types of Joints
- Q.6 Attempt any two:
 i. What Sort of Geological Studies are to be done for selection of Dam site? **5**

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- ii. Write short notes on: **5**
 (a) Artisan aquifers (b) Prevention of Land slides
- iii. Write short notes on: **5**
 (a) GPS (b) GIS

Marking Scheme
CE3CO03 Engineering Geology

Q.1	i.	Study of Earthquake waves are useful in determination of: (c) Interior of the Earth	1
	ii.	Phenomena of Meandering is associated with- (c) River Errosion	1
	iii.	$a_1 = a_2 = a_3 = 90^\circ$ denotes- (a) Cubic system	1
	iv.	Most abundant rock farming Mineral in the Earth Crust is? (a) Felspar	1
	v.	Conglomerate is a type of- (b) Sedimentary rock	1
	vi.	Most of the Indian Coal field belong to- (c) Gondwana group	1
	vii.	A dip has- (d) None of these	1
	viii.	Hanging wall and footwall belongs to- (c) A fault	1
	ix.	Which of the following reservior contains the most pure water? (c) Biosphere	1
	x.	The top of water saturated zone is known as- (a) The Water Table	1
Q.2	i.	Definition 3 Types	4
	ii.	Name of hypothesis Explanation Diagram	6
	OR iii.	(a) Earthquakes and it's types Definition 3 Types (b) Diagram 3 Types	6
Q.3	i.	Draw Geological Time Scale.	2
	ii.	Name of systems Axial diagram	8

		Symmetry elements	2 Marks	
		Minimal elements (minimum 4)	2 Marks	
OR	iii.	(a) Talc (b) Calcite (c) Gypsum (d) Quatz For each mineral (Minimum5 properties should be written)	2 Marks each (2 Marks*4)	8
Q.4	i.	Definition Classification.	1 Mark 3 Marks	4
	ii.	(a) Geographic Time Scale (b) Extrapeninsular India	3 Marks 3 Marks	6
OR	iii.	(a) Agents of Metamorphism. (b) Formation of Sedimentary rocks. (c) Classification of Igneous rocks.	2 Marks 2 Marks 2 Marks	6
Q.5	i.	Definition Types Diagram	1 Mark 2 Marks 1 Mark	4
	ii.	Definition Classification Diagram	1 Mark 3 Marks 2 Marks	6
	OR iii.	(a) Parts of a Fold (b) Symetric and Asymetric Folds (c) Types of Joints	2 Marks 2 Marks 2 Marks	6
Q.6		Attempt any two:		
	i.	1 Mark for each point	(1 Mark*5)	5
	ii.	(a) Artisan aquifers (b) Prevention of Land slides	2.5 Marks 2.5 Marks	5
	iii.	(a) GPS (b) GIS	2.5 Marks 2.5 Marks	5
