

**PRAGATI ENGINEERING COLLEGE: SURAMPALEM  
(AUTONOMOUS)**

**II B.Tech II Semester Regular/Supplementary Examinations, May-2024**

**ENGINEERING GEOLOGY  
(CE)**

**Time: 3 hours**

**Max. Marks: 70**

**Answer ONE Question from each Unit  
All Questions Carry Equal Marks**

Q. No.	Questions	BTL	CO	Marks
<b>UNIT – I</b>				
1.	a) Discuss briefly the type of landforms and drainage characteristics during youth and mature stages of a river development.	K2	CO1	7M
	b) Write the importance of geology in Civil Engineering with case studies.	K1	CO1	7M
<b>OR</b>				
2.	a) Explain why weathering of rocks is undesirable from civil engineering point of view.	K2	CO1	7M
	b) What are the various branches of Geology and explain their relevance form Civil Engineering point of view.	K2	CO1	7M
<b>UNIT – II</b>				
3.	a) Define mineral and describe the various physical properties, which are useful in identification of mineral.	K1	CO2	7M
	b) Write the various physical properties, chemical composition, atomic structure and uses of Quartz mineral.	K1	CO2	7M
<b>OR</b>				
4.	a) Explain the structures and textures of metamorphic rocks.	K2	CO2	7M
	b) Explain the Classification of metamorphic rocks.	K2	CO2	7M
<b>UNIT – III</b>				
5.	a) Write a note on the following : (a) Normal fault and reverse fault b)Translational faults and rotational faults	K1	CO3	7M
	b) Explain the terms “Fault plane, Foot wall, Hanging wall, Throw and Heave” with neat sketches.	K2	CO3	7M
<b>OR</b>				
6.	a) Explain the terms “Conformable bed and unconformable beds” with neat sketches.	K2	CO3	7M
	b) Describe the different types of unconformities encountered in the nature. Draw neat sketches.	K2	CO3	7M
<b>UNIT – IV</b>				
7.	a) Explain the classification of earthquakes in to tectonic and nontectonic types.	K2	CO4	7M
	b) Explain the terms intensity and magnitude of earthquakes.	K2	CO4	7M
<b>OR</b>				

8.	a)	Write short note on (a) Types of aquifers (b) Geological controls and ground water movements.	K1	CO4	7M
	b)	Describe the ground water exploration techniques.	K2	CO4	7M
<b>UNIT – V</b>					
9.	a)	. Write short note on (a) Effects of tunneling on the ground (b) Lining of tunnel	K1	CO5	7M
	b)	Draw suitable sketches and explain the consideration for locating tunnels in folded and faulted formations.	K2	CO5	7M
<b>OR</b>					
10.	a)	What are the influencing factors for a successful reservoir? And explain.	K2	CO5	7M
	b)	Write a short note on the following: (a) geological considerations in the successful reservoir (b) Capacity of reservoir	K1	CO5	7M