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**B.TECH.**  
**(SEM V) THEORY EXAMINATION 2021-22**  
**ENGINEERING GEOLOGY**

**Time: 3 Hours****Total Marks: 100****Note: 1.** Attempt all Sections. If require any missing data; then choose suitably.**SECTION A****1. Attempt all questions in brief.****2 x 10 = 20**

Q no.	Question	Marks	CO
a.	Define geology.	2	1
b.	What are different rock forming minerals?	2	1
c.	Explain physical properties of Calcite mineral.	2	2
d.	How minerals are formed?	2	2
e.	What is the difference between a normal and reverse fault?	2	3
f.	Define physical weathering	2	3
g.	How are earthquakes classified?	2	4
h.	What is effect of faulting?	2	4
i.	Explain the necessities of geophysical investigation.	2	5
j.	Define aquifer.	2	5

**SECTION B****2. Attempt any three of the following:**

a.	Enumerate importance and application of geology in civil engineering practice.	10	1
b.	Write the factors are needed for a sedimentary rock to form a metamorphic rock.	10	2
c.	What causes physical properties of minerals ? Explain	10	3
d.	Explain with the help of neat sketches , principle of faults as understood in structural geology ?	10	4
e.	What are the geophysical methods of subsurface exploration ? Explain any one method.	10	5

**SECTION C****3. Attempt any one part of the following:**

a.	How do you determine the composition of a mineral?	10	1
b.	How can identify the primary minerals to secondary minerals?	10	1

**4. Attempt any one part of the following:**

a.	Describe the various agents of metamorphic rock.	10	2
b.	Explain with neat sketches Horst and Graben.	10	2

**5. Attempt any one part of the following:**

a.	Give salient features and mention important properties of the following groups of minerals. (i) Pyroxene group (ii) Amphibole group	10	3
b.	Write short notes on the following : (i) Minerals formed due to recrystallization (ii) Classification of feldspars	10	3

**6. Attempt any one part of the following:**

a.	What are landslides? Give a note on their control.	10	4
b.	What is the causes of earthquake and give the effect of earthquake on human .	10	4

**7. Attempt any one part of the following:**

a.	Discuss the geological investigations that are carried out for Dam site selection.	10	5
b.	Explain the influence of geological structures, water table, and scope for preventive leakage for successful reservoir.	10	5