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KAMALA INSTITUTE OF TECHNOLOGY & SCIENCE, SINGAPUR
23CE28PC303

II.B. Tech. I. Semester Supplementary Examinations, June-2025

ENGINEERING GEOLOGY

(CE)

Time: 3 Hours

Max. Marks: 60

Note: Question paper consists of Part-A & Part-B.

i) **Part-A** for 10M, ii) **Part-B** for 50marks

- Part A** is compulsory, consists of 10 sub questions from all units carrying equal marks.
- Part-B** consists of **10 questions** (numbered from 2 to 11) carrying **10marks** each. From each unit there are 2 questions and the students should answer one of them. Hence the student should answer **5 questions** from **Part-B**.

PART-A		(10Marks)	
Q. No	Questions	Marks	BTL
1.a)	List out the branches of Geology	1	1
1.b)	Define Weathering	1	1
1.c)	What are the common textures of igneous rocks?	1	1
1.d)	State various structures of metamorphism.	1	1
1.e)	Define Faults.	1	1
1.f)	Differentiate Fault zone and Shear zone?	1	1
1.g)	Mention the different types of aquifers?	1	1
1.h)	Write about Environmental Geology	1	1
1.i)	What is a dam? With what purpose it is built?	1	1
1.j)	What is the impact of water table on tunneling?	1	1
PART-B		(50Marks)	
Q.No.	Questions	Marks	BTL
2. a)	Explain the failures of some civil engineering structures due to geological drawbacks	7M	2
b)	Describe the various branches of Engineering Geology?	3M	2
OR			
3. a)	Write the importance of physical geology & Structural geology	6M	2
b)	Describe the weathering due to air and water in detail	4M	2
OR			
4. a)	How can you identify a mineral by the help of their physical and chemical properties?	5M	2
b)	Define Mineral. How are the minerals classified?	5M	2
OR			
5.	On the basis of silicate structure, classify silicate minerals into various groups. Explain the structure of each group in detail	10M	2
6.	Explain briefly a) fold b) fault c) joint Illustrate your answer with neat sketches	10M	2
OR			
7. a)	Discuss the various ground water movements	5M	2

b)	Discuss thoroughly about the dip strike, unconformity and drag fold	5M	2
8. a)	What is elastic rebound theory and explain the tectonics earthquakes?	5M	2
b)	Describe in detail different geophysical prospecting methods	5M	2
OR			
9. a)	Explain Ground water prospecting by geophysical methods	5M	2
b)	What are precautionary measures taken in the construction of buildings in earthquake prone zones	5M	2
10.a)	What is a Tunnel? Explain the terms that are used in tunnels. With neat sketches.	7M	2
b)	Explain the purpose of tunneling	3M	2
OR			
11.a)	What are the geological considerations necessary in the selection of a dam site?	6M	2
b)	Discuss the foundation and abutment competency of rocks with reference to dams	4M	2

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