

Reg. No.



**MANIPAL INSTITUTE OF TECHNOLOGY**  
**MANIPAL**  
 (A constituent unit of MAHE, Manipal)

IV SEMESTER B.TECH (CIVIL ENGINEERING)  
 END SEMESTER EXAMINATIONS, JUNE 2022  
**SUBJECT: ENGINEERING GEOLOGY [CIE 2253]**  
**REVISED CREDIT SYSTEM**  
 ( \_ / 06 / 2022)

Time: 3 Hours

Max. Marks: 50

**Instructions to Candidates:**

- ❖ Answer ALL the questions
- ❖ Missing data may be suitably assumed

Q.No		Marks	CO
1A.	Mention different eras of geologic time scale? Explain any two eras sub classifying them into periods	5	1
1B.	What is the scope of geology in civil engineering?	3	1
1C.	Differentiate between seismogram and seismograph?	2	2
2A.	With a neat diagram explain the internal structure of the earth	5	2
2B.	Discuss the different types of plate boundaries?	3	2
2C.	What is Tsunami? How is it caused?	2	2
3A.	What are the geological considerations to be adopted during the construction of a tunnel	5	3
3B.	Explain the methods of soil erosion control	3	3
3C.	What is a cleavage? Mention the different types of cleavages in minerals?	2	3
4A.	What are the textures of igneous rocks? Explain with neat diagrams	5	3
4B.	Discuss any three clastic/ detrital sedimentary rocks	3	3
4C.	Write a note on contact metamorphism	2	3
5A.	What are folds? List the different types of folds with neat diagrams	5	3
5B.	With a neat diagram explain the hydrological cycle	3	4
5C.	Explain the role of GIS and RS in groundwater exploration	2	5