



Reg No.: \_\_\_\_\_

Name: \_\_\_\_\_

**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**

B.Tech Degree S4 (S,FE) (FT/WP) (S2 PT) Examination December 2025/January 2026 (2019 Scheme)

**Course Code: CET202****Course Name: ENGINEERING GEOLOGY**

Max. Marks: 100

Duration: 3 Hours

**PART A***(Answer all questions; each question carries 3 marks)*

Marks

1	Describe the nature of natural chemical solutions that interact with rocks in chemical weathering	3
2	Name any three types of erosion by sea waves and currents	3
3	Explain the moment magnitude scale used for the rating of earthquakes	3
4	Explain the uses of Seismic Zonation Map of India	3
5	Relate porosity of a rock to the movement of groundwater through it	3
6	State Darcy's Law	3
7	Define triboluminescence of minerals with one example	3
8	Describe the mineralogy of granite	3
9	Explain dip and strike of rocks	3
10	Classify the joints present in rocks	3

**PART B***(Answer one full question from each module, each question carries 14 marks)***Module -1**

11	a) Explain the processes responsible for the origin of laterite	9
	b) Relate rock weathering to any four points of engineering significance	5
12	a) Explain the multiple roles played by water in the origin of landslides.	7
	b) Illustrate any four types of engineering measures of soil conservation	7

**Module -2**

13	a) Demonstrate the use of propagation of seismic waves through the earth to reveal the interior of the earth	7
	b) Relate plate tectonics to the origin of earthquakes	7
14	a) Explain the importance of Richter scale in earthquake disasters management	7
	b) Relate the rating of earthquakes to the destructions caused by the earthquakes	7

**Module -3**

15 Relate the nature of the presence of groundwater at a given area to the different types of aquifers present in that area. 14

16 a) Enumerate and explain the different types of groundwater discharge 7

b) Explain one method to explore groundwater using the electrical resistivity of natural materials present beneath the surface of the earth 7

**Module -4**

17 a) Classify and characterize the rock types present in the coastal region of Kerala 7

b) Classify the igneous rocks based on the mineralogy of rocks 7

18 a) Compare and characterize any six types of lustres of minerals 8

b) How will you megascopically identify the basalt in the field 6

**Module -5**

19 a) Relate the presence of faults in rocks at a project site to the competence of that rocks to support load 7

b) Explain the parts of a fold with the help of a diagram 7

20 a) Explain the geological part of site investigation for the construction of a tunnel in a region 14

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