

Roll No.

3206

**B. Tech. 5th Semester (Civil Engg.)
Examination – March, 2021**

ENGINEERING GEOLOGY

Paper : PCC-CE-311-G

Time : Three hours] [Maximum Marks : 75

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Attempt any *five* questions. Question No. 1 is *compulsory*. Attempt *one* question from each Section. All questions carry equal marks.

1. (a) Define the term soil erosion.
- (b) Describe briefly the layers of interior of earth.
- (c) Define weathering.
- (d) What is meant by seismic zone ?
- (e) Explain in short the application of Geophysical survey.

- (f) Explain in detail about chemical weathering.
- (g) Describe the term landslide.
- (h) Write about mohorovicic and Gutenberg discontinuity.
- (i) Explain about plate tectonics and name a few secondary tectonic plates.
- (j) Write short note on exfoliation and exudation.

$$1.5 \times 10 = 15$$

SECTION - A

- 2. (a) What is Engineering Geology ? Discuss its role in Civil Engineering projects. 10
- (b) How are different rocks identified in the field ? 5
- 3. Explain with neat Sketches major geological features produced by wind on earth surface. 15

SECTION - B

- 4. Give an account of different types of rocks among igneous, sedimentary and metamorphic groups which occur more frequently and abundantly in nature. 15
- 5. What is the significance of faults ? Explain types of faults with neat sketches. 15

3206- (P-3)(Q-9)(21) (2)

SECTION - C

- 6. (a) What are the influencing factors for a successful reservoir ? And explain. 7
- (b) Explain methods of artificial recharge of groundwater. 8
- 7. A Write a short note on uses of remote sensing techniques during Geological investigation. 15

SECTION - D

- 8. (a) What are the effects of tunneling on the ground ? 10
- (b) Describe the purpose of tunnels. 5
- 9. Discuss the causes, classification and preventions of landslides. 15

3206- (P-3)(Q-9)(21) (3)