

BACHELOR OF CONSTRUCTION ENGINEERING

Examination, 2018

(2nd Year, 1st Semester)

Time : Three hours

Sub: **ENGINEERING GEOLOGY**

Full Marks : 100

GROUP-A

(Use separate answer script for each group)

Answer any five questions

1. Write short notes on (any two) (5x2=10)

- a) Geological Time Scale
- b) Contact and Regional Metamorphism
- c) Natural hazards and Disaster

Answer any *four* questions (10x4=40)

2. What is primary rock? What are the characteristic properties of basic and acidic igneous rocks? Which factors control the viscosity of magmas? Write note on texture of igneous rocks.

(2+3+2+3=10)

3. Write basic definitions of topography, landforms and geomorphology. What do you mean by the terms 'fluvial landforms' and 'aeolian landforms'? Explain. What is hanging valley?

(3+5+2=10)

4. What is river basin? What is delta in river? Write note on different types of dunes with sketch diagram.

(2+3+5=10)

5. What is soil? Which factors are responsible for soil formation? Write note on soil profile with sketch diagram.

(2+4+4=10)

6. Classify clastic sediments on the basis of particle size. What are the structural and textural differences between sandstone and conglomerate? What is the heavy metals pollution in soil? Explain.

(3+3+4=10)

B. CONSTRUCTION ENGG. 2ND YR. 1ST SEM. EXAMINATION, 2018

Subject- Engineering Geology

Time: Three hours

Full Marks: 100

Instruction: Use separate answer scripts for each Group. Answer any 5 (five) questions.

GROUP- B

1. What types of seismic waves are generated during earthquake? Give details of the different parts of the interior of the earth with the help of suitable diagrams. 4 + 6
2. What are the basic premises of plate tectonics theory? Write the salient features of different plate boundaries in the earth. 4 + 6
3. What are the different types of slope movement processes? How does the ground water influence the slope failure? 6 + 4
4. Draw a fold structure neatly and label its different components. Distinguish between normal, reverse and strike-slip faults 4 + 6
5. With the help of suitable diagram describe the principal types of dams along with their salient features. Write briefly the different components of geological investigation during site selection of Dam. 4 + 6
6. What is shearzone? How does it influence construction of tunnelling? 4 + 6
7. How would you relate the origin of Himalaya with the plate tectonics theory? Write the major supporting evidences for the continental drift theory. 4 + 6