

B. CONS ENGG. 2ND YEAR 1ST SEM. EXAMINATION 2019

Subject: ENGINEERING GEOLOGY

Time: Three hours

Full Marks : 100

GROUP: A*(Use separate answer scripts for each Group)***Answer question number 1 and any 3 from the rest**

1. Write note on (any two): (5.5 x 2 = 11)
 - a) Tectonic landform
 - b) Nebular Hypothesis
 - c) Soil Profile

 2. What is igneous rock? Which factors control size of crystals in igneous rock? What are the compositional differences between Basalt and Granite rocks? Write note on texture of igneous rocks. (2+3+4+4=13)

 3. What is sedimentary rock? Classify sediments on particle size. Describe different kinds of clastic sedimentary rocks in fluvial system. Write note on primary structures in sedimentary rocks. (2+2+5+4=13)

 4. What is landform? What kinds of landform occurred on the basis of the earth relief? Write note on fluvial landform? What are the differences between braided river and meander river? (2+3+4+4=13)

 5. What do you understand by the terms of 'natural hazards' and 'disaster'? Describe different kinds of natural hazards. What are the phases of disaster management? (3+6+4=13)
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Group-B

(Use separate answer scripts for each Group.)

Answer question number 1 and any 2 from the rest.

1. Write short note on: (any five) 5 x 2
 - a. P-wave shadow zone
 - b. Epicentre of earthquake
 - c. Subduction zone
 - d. Transform fault
 - e. Streak and Hardness of mineral
 - f. Mantle
 - g. Shear fractures
 - h. Foliation

2.
 - a) What types of seismic waves are generated during earthquake?
 - b) Which seismic waves cause damage mostly in the earth surface during earthquake and why?
 - c) Give details of the different parts of the interior of the earth with the help of suitable diagrams. 6 + 4 + 10

3.
 - a) What do you mean by the terms fold and fault?
 - b) Classify fold according to their inter-limb angle.
 - c) Explain normal and reverse fault with suitable diagrams.
 - d) How can a fault influence the stability of structure? Discuss with a suitable diagram. 4 + 4 + 2 + 10

4.
 - a) Write basic difference between dam and reservoir?
 - b) What are the main objectives for construction of a dam?
 - c) With the help of suitable diagram describe the principal types of dams along with their salient features. 4 + 6 + 10

5.
 - a) With the help of suitable diagram describe the influence of geological structures in construction of tunnel structures.
 - b) What are the different types of slope movement processes?
 - c) How does the ground water influence the slope failure? 10 + 6 + 4