Third Semester B.E. Degree Examination, June/July 2017

Engineering Geology

Time: 3 hrs.  Max. Marks: 80

Note: 1. Answer FIVE full questions, choosing one full question from each module.
   2. Write neat figures wherever necessary.

Module-1
1 a. Enumerate importance and applications of Geology in Civil Engineering practices. (06 Marks)
   b. Write a note on cleavage and fracture properties in minerals. (05 Marks)
   c. Write the physical properties, composition and uses of Quartz and Calcite. (05 Marks)

OR
2 a. Describe the Internal structure and Composition of the Earth. (06 Marks)
   b. Define a Mineral. Describe hardness property in minerals. (05 Marks)
   c. Distinguish between Rock forming and Ore forming minerals with examples. (05 Marks)

Module-2
3 a. What are Igneous rocks? Describe different types of igneous rocks. (06 Marks)
   b. Explain Rock as a construction material. (05 Marks)
   c. Define a Fault. Describe different parts of fault, with neat figure. (05 Marks)

OR
4 a. What is Metamorphism? Give a note on types of metamorphism. (06 Marks)
   b. Write a short note on Granite and Sandstone, giving their mineralogical composition and uses. (05 Marks)
   c. What are Joints? Comment on their Engineering Importance. (05 Marks)

Module-3
5 a. Explain Rock Weathering and its types with examples. (06 Marks)
   b. What is an Earthquake? Give its causes and effects. (06 Marks)
   c. Write a note on Floods and their control. (04 Marks)

OR
6 a. Comment on Geomorphological aspects in selection of sites for dams and reservoirs. (06 Marks)
   b. What are Landslides? Give a note on their control. (05 Marks)
   c. Describe different drainage patterns. (05 Marks)

Module-4
7 a. What is an Aquifer? Give a note on its types with examples. (06 Marks)
   b. Explain Electrical Resistivity method for Ground water Exploration. (06 Marks)
   c. Write a note on Hydrological cycle. (04 Marks)

OR
8  a. Write a note on occurrence of Ground water in different terrains. (06 Marks)
    b. Describe artificial recharge of Ground water. (05 Marks)
    c. Explain Sea water intrusion and its remedies. (05 Marks)

Module-5

9  a. What are Topographic and Contour maps? (06 Marks)
    b. Explain concept and applications of Remote sensing. (05 Marks)
    c. Comment on Impact of mining and quarrying on environment. (05 Marks)

OR

10  a. Write a note on Global Positioning System (GPS). (06 Marks)
    b. What is LANDSAT Imagery? Write its uses. (05 Marks)
    c. Write a note on the Impact of reservoirs on Environment. (05 Marks)