

Roll No.

B. E/ B. Tech. (Full Time) DEGREE END SEMESTER EXAMINATION, April / May 2019

CIVIL ENGINEERING BRANCH

THIRD SEMESTER

AG 8302-ENGINEERING GEOLOGY

(REGULATIONS 2012)

Duration: 3 hrs.

Max. Marks: 100

Answer ALL Questions

Part – A (10 x 2 = 20 Marks)

1. What is drainage pattern? List its types.
2. Write the scale of rock weathering.
3. How do you relate the rock strength with Moh' scale of hardness?
4. List at least four minerals used in civil engineering industry.
5. Give a list of igneous rocks used in civil engineering.
6. Define the term 'RQD'.
7. Write the significance of rock joints in civil engineering.
8. Draw a sketch of normal fault and show: Hanging wall, Footwall and Fault plane.
9. What are the landslides types?
10. Which are the photo recognition elements in aerial photographs?



Part – B (5 x 16 = 80 Marks)

(Question No.11 is compulsory)

11. Describe the types of weathering. Write a note on the relationship between hardness of rocks and rock weathering.
12. (a). Write in detail on the properties of following minerals: (i) Quartz (ii) Feldspars (iii) Gypsum (iv) Calcite.
(OR)
(b). Write the common physical properties of clay minerals and its uses.
13. (a). Draw a neat sketch of 'Rock Cycle'. Explain various classifications of igneous rocks.
(OR)
(b). Give a detailed account on various tests to determine the engineering properties of the rocks.
14. (a). Illustrate with neat sketches on Fault and their types. Explain how a fault in rock affects the major civil engineering constructions.
(OR)
(b). Describe the seismic methods of sub-surface exploration. Write their engineering applications.
15. (a). Enumerate the techniques in remote sensing and its civil engineering applications.
(OR)
(b). Describe the various rock structures and their significance in design and construction of Tunnels.
