

B.E. CONST. ENGG. 2ND YEAR 1ST SEMESTER SUPPLEMENTARY EXAM. 2023

Subject: Engineering Geology

Full Marks: 100

Time: 3 hours

Attempt any 5 questions.

5 x 20

1. With the help of seismological study how the interior structure of the Earth can be revealed? What are the different layers present with in the earth?
12 + 8
2. With the help of suitable diagrams briefly describe the different plate boundaries in the earth? Write major supporting evidences for the continental drift theory?
12 + 8
3. What is fault? What are the criteria for the recognizing faulting in the field? Describe Net slip, Strike-slip and Dip-slip of a fault with suitable sketches. Discuss the types of faults based on faulting pattern.
4 + 6 + 4 + 6
4. What is fold? With the help of suitable diagram define fold axis, fold axial plane, transverse profile, hinge line, inflection line, extrados and intrados surface. What are anticlinal and synclinal folds? Define foliation with suitable sketch?
4 + 6 + 6 + 4
5. What are the possible hazards associated with earthquake? How an earthquake can be predicted temporally?
10 + 10
6. Describe briefly the principal types of dams. What types of geological investigations are carried out in tunneling projects?
6 + 14
7. Define mineral. Write 7 (seven) major physical properties of mineral with examples by which a mineral can be identified in hand specimen.
6 + 14
8. Write short notes on:
5 x 4
 - a) Wave Ripple and Current ripple marks in rock
 - b) Vesicular structures
 - c) Epicenter and Hypocenter of Earthquake
 - d) Roopy lava and Block lava
 - e) Interlocking and Clastic Texture