

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY-GURUJADA VIZINAGARAM
II B. Tech II Semester Supplementary Examinations November-2025
ENGINEERING GEOLOGY
(CE)

Time: 3 hours**Max. Marks: 70****The Question paper consists of Part A & Part B.****Part A is compulsory, Answer all questions. Part B Answers any one question from each unit.**

- | | | |
|----|--|-------|
| 1 | PART-A | (20M) |
| | a) Write a detailed note on physical weathering | [2] |
| | b) Define the term Mineralogy. | [2] |
| | c) What is the role of atmosphere in weathering? | [2] |
| | d) What is metamorphic rock? | [2] |
| | e) What is the importance of lining in tunnels? | [2] |
| | f) What are the types of waters? | [2] |
| | g) Discuss the effect of faulting on various engineering projects | [2] |
| | h) Give an account of geological investigation of Dam site. | [2] |
| | i) How are earthquakes classified? | [2] |
| | j) What are the effects of Tunnels? | [2] |
| | PART-B | (50M) |
| | Question from Unit - I | |
| 2 | a) What are the types of geological agents? Describe briefly the natural agencies | [5] |
| | b) What is the importance of engineering geology related to civil engineers in working site? | [5] |
| | (OR) | |
| 3 | Describe in detail, the process of weathering of rocks. Add a note on the effect of weathering on the strength of rocks. | [10] |
| | Question from Unit - II | |
| 4 | a) Explain the engineering properties and description of Granite, Shale, Marble and Slate. | [5] |
| | b) Write the importance of different physical properties in mineral identification | [5] |
| | (OR) | |
| 5 | a) Describe the physical properties of minerals (i) Asbestos and (ii) Hematite. | [5] |
| | b) Describe the physical properties of i) Quartz ii) Slate iii) Schist | [5] |
| | Question from Unit - III | |
| 6 | a) Draw the types of folds and give their mechanism with sketches. | [5] |
| | b) What are the parts of joints and give their classification | [5] |
| | (OR) | |
| 7 | a) What are the parts of unconformity? Give their classification | [5] |
| | b) What is meant by folding of rock? How is it produced and classify types of fold? | [5] |
| | Question from Unit - IV | |
| 8 | a) Enumerate the classification and causes of earthquakes | [5] |
| | b) What are landslides? Discuss briefly their types, causes and preventive measures | [5] |
| | (OR) | |
| 9 | a) Classify landslides and discuss about the causative factors of landslides.. | [5] |
| | b) Write the importance of seismic refraction methods in civil engineering | [5] |
| | Question from Unit - V | |
| 10 | a) Write short note on i) purpose of tunnel ii) over break in tunnels. | [5] |
| | b) Explain with neat diagram favorable and unfavorable dips at a Tunnel site. | [5] |
| | (OR) | |
| 11 | a) Discuss the geological investigations that are carried out for Dam site selection | [5] |
| | b) What are Dams and Reservoirs? Discuss the different types of dams giving geological reasons | [5] |
