



R20 Regulation *Subject code: 3P4AB*
TKR COLLEGE OF ENGINEERING AND TECHNOLOGY
(Autonomous, Accredited by NAAC with 'A' Grade)
B.Tech IV Semester Regular Examinations, July 2022

ENGINEERING GEOLOGY
(CIVIL ENGINEERING)

Maximum Marks: 70

Date: 22.07.2022 Duration: 3 hours

- Note: 1. This question paper contains two parts A and B.
2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
3. Part B consists of 5 Units. Answer any one full question from each unit which carries 10M.
4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks

(10x2M=20 Marks)

- 1 How rocks are classified according to scale of weathering.
- 2 What is meant by soil profile?
- 3 Write down the Moh's scale of hardness of minerals?
- 4 What are the chemical compositions in feldspar group?
- 5 What are the kinds of Metamorphism?
- 6 What is rock cleavage?
- 7 Compare fault and fold.
- 8 How can landslides be prevented?
- 9 What are the special features of tunnel sites?
- 10 List the geological condition necessary for the site selection of Dams.

Part-B

Answer All the following questions.

(10MX 5=50Marks)

- 11 Discuss in detail the physical and chemical weathering of rocks and add a note on its merits and demerits in civil engineering project. [10]
OR
- 12 How is ground water formed? Describe the different types of aquifers and porosity. Give a note on ground exploration methods. [10]
- 13 Describe the chemical composition, physical properties, origin, varieties of quartz family members. [10]
OR
- 14 Describe the physical properties and uses of the following minerals. a) Calcite b) Magnetite [10]
- 15 Bring out the distinguishing characters and properties of igneous, sedimentary and metamorphic rocks. [10]
OR
- 16 Give the mode of occurrence mineral composition, engineering properties and uses of the following rock. (a) Granite (b) sandstone [10]
- 17 Write a note on faults, their causes and effects on engineering quality of rocks. [10]
OR
- 18 Explain the electrical methods of geophysical surveys for civil Engineering Investigations. [10]
- 19 Explain the geological considerations necessary for the construction of tunnel in hard and soft rock terrains. [10]
OR
- 20 What do you understand by a dam disaster? Discuss these geological situations which ignored could be the cause of the possible dam disaster. [10]