

17CE3305

9. a. Enumerate the objects of dams and various types of dams suitable for achieving different objects. **8M**
- b. What is tunnel? Explain its types. What are their advantages? **7M**

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VELAGAPUDI RAMAKRISHNA
SIDDHARTHA ENGINEERING COLLEGE
(AUTONOMOUS)

II/IV B.Tech. DEGREE EXAMINATION, MARCH, 2021

Third Semester

CIVIL ENGINEERING

17CE3305 ENGINEERING GEOLOGY

Time: 3 hours

Max. Marks: 70

Part-A is compulsory

Answer One Question from each Unit of Part-B

Answer to any single question or its part shall be written at one place only

PART-A

10 x 1 = 10M

1. a. What is EPMA?
- b. Define rock and mineral.
- c. List out types of landslides.
- d. Explain dip.
- e. Write causes of earthquakes.
- f. Enumerate importance of topographic map.
- g. Explain seismic refraction method.
- h. Define rock mass.
- i. What is aquiclude?
- j. Explain texture of granite.

PART-B**4 x 15 = 60M****UNIT-I**

2. a. Explain the importance of structural geology and petrology in Civil Engineering. **8M**
- b. What are the advantages of study of minerals by their physical properties in mineral identification? **7M**

(or)

3. a. Describe the physical properties including special and distinguishing properties of any four of the following minerals. **8M**
- i) Muscovite ii) Talc
iii) Hornblende iv) Kyanite
v) Quartz vi) Calcite
- b. Explain textures of igneous and metamorphic rocks. **7M**

UNIT-II

4. a. ii) Draw a neat sketch of a 'Normal Fault' and label the parts.
i) Why faults are more dangerous than other geological structures from Civil Engineering point of view? **8M**
- b. Explain engineering classification of weathered rock with examples. **7M**

(or)

5. a. i) Draw a neat sketch of a 'Fold' and label the parts.
ii) How folds are classified?
iii) Explain the importance of folding of rocks from Civil Engineering point of view. **8M**
- b. What are the types of joints in igneous rocks, sedimentary rocks and metamorphic rocks? Explain. **7M**

UNIT-III

6. a. What are classifications of geophysical methods? **8M**
- b. What is landslide? Give their classification. **7M**

(or)

7. a. Explain the construction of building in earthquake prone areas. **8M**
- b. What is the necessity of geophysical investigations? Explain. **7M**

UNIT-IV

8. a. What are the geological considerations for successful reservoir? **8M**
- b. Explain the influence of rock types for successful construction of dams. **7M**

(or)