

**VELAGAPUDI RAMAKRISHNA
SIDDHARTHA ENGINEERING COLLEGE
(AUTONOMOUS)**

CIVIL ENGINEERING

Time: 3 hours

Max. Marks: 70

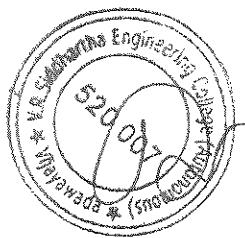
Answer One Question from each Unit of Part - B

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

PART-A

$$10 \times 1 = 10M$$

1.
 - a. Define weathering and its types.
 - b. Describe the importance of petrology in Civil Engineering.
 - c. Discuss the classification of Igneous rocks.
 - d. Sketch the rock cycle.
 - e. Compare and contrast earthquake and a landslide.
 - f. Mention any one prominent structure made of sedimentary rock.
 - g. Define a landslide.
 - h. What is rock deformation?
 - i. What are the parameters of electrical resistivity methods?
 - j. Mention the permissible limit of fluoride in drinking water.



20ES3102A

PART-B

4 x 15 = 60M

UNIT-I

2. a. Distinguish the physical properties of Calcite and Quartz. **8M**
b. Define Engineering Geology? Discuss the scope and importance of geology in construction. **7M**

(or)

3. a. Describe the significance of physical properties in mineral identification. **8M**
b. Discuss the textures of sedimentary rocks. **7M**

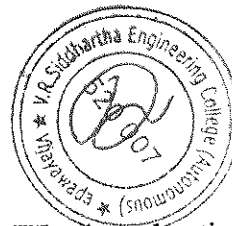
UNIT-II

4. a. Classify the types of weathering and explain its engineering classification. **8M**
b. Discuss seismic effects. Explain the significance of seismic zones of India. **7M**

(or)

5. a. Discuss the classification of folds and explain its effects on projects. **8M**
b. Enumerate the causes and effects of landslides. **7M**

VR20



UNIT-III

20ES3102A

6. a. What is exploration geophysics? Discuss the merits and demerits. **8M**
b. How geophysical investigations are helpful in finding subsurface details of a site. **7M**

(or)

7. a. Explain topographic profile. How do you interpret morphological features from topographic map? **8M**
b. Explain the electrical resistivity method of geophysical studies for geological exploration. What are the limitations of the method? **7M**

UNIT-IV

8. a. What are geological investigation methods adopted for selection of a tunnel site? **8M**
b. What are the geological considerations necessary in the selection of a Dam Site? **7M**

(or)

9. a. Explain the influencing factors for a successful reservoir. **8M**
b. What is the environmental impact on aggregate waste disposal? **7M**

* * *