

**M047**

B.E./B.TECH. DEGREE EXAMINATIONS, MAY/JUNE-2011

REGULATIONS 2008

THIRD SEMESTER

**AG 33 – APPLIED GEOLOGY**

CIVIL ENGINEERING

Maximum: 100 marks

Time: Three Hours

ANSWER ALL QUESTIONS

PART-A (10×2=20 marks)

1. What is the mean radius of earth?
2. Define "Aquifer".
3. What is axis of symmetry?
4. Write the uses of clay minerals.
5. What are the agents of metamorphism?
6. Explain "Graded bedding".
7. What is Normal Fault?
8. Define "Dip and strike".
9. Define "soil creep".
10. What is remote sensing?

PART-B (5×16=80 marks)

11. (a) Write an essay on the geology of ground water, its occurrence and prospecting. (16)

Or

(b) Describe in detail the earth structure and composition. (16)

12. (a) Write in detail the axial relation, symmetry elements and forms present in the Normal class of orthorhombic system. (16)

Or

(b) Describe in detail the various physical properties and uses of the quartz group minerals. (16)

13. (a) Describe various criteria used for distinguishing igneous, sedimentary and metamorphic rocks. (16)

Or

(b) Write the description, uses and engineering properties of the following rocks. (16)

- (i) Conglomerate
- (ii) Gneiss
- (iii) Pegmatite
- (iv) Gabbro

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14. (a) Describe various geological structures and write its engineering importance. (16)

Or

(b) Describe in detail the seismic method used in civil engineering investigation. (16)

15. (a) Write in detail the geological condition necessary for the construction of dams (16)

Or

(b) Describe various types of landslide, its causes and prevention. (16)

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