

D 4503

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2007.

Annual Pattern – First Year

Civil Engineering

CE 1 X 01 — CONSTRUCTION MATERIALS

(Regulation 2004)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Name any four common building stones.
2. What are the harmful ingredients in brick earth?
3. What is meant by artificial hydraulic lime?
4. What is meant by bulking of sand?
5. What are the advantages of slump test?
6. State the properties of fresh concrete.
7. Define "Veneer".
8. What are the ingredients of a varnish?
9. Explain soda lime glass.
10. What is polysulphide based sealants?

PART B — (5 × 16 = 80 marks)

11. (a) Describe various test on stones suitable for construction.

Or

(b) Explain in detail four distinct operations involved in the process of manufacture of bricks.

12. (a) Write the manufacturing process of cement.

Or

(b) Describe the test methods on impact strength, flakiness and abrasion resistance of stone aggregate.

13. (a) Describe various mix design of cement concrete.

Or

(b) What is meant by workability of concrete? Describe any one method to find out the workability of fresh concrete.

14. (a) Give an account of various marketable forms of steel and aluminum.

Or

(b) Write the ingredients, types, characteristics and uses of paints.

15. (a) Classify refractories, and its properties and uses.

Or

(b) Write an essay on the application of geosynthesis in civil engineering.