

B.E.DEGREE EXAMINATIONS: MAY / JUNE 2011

Second Semester

CIVIL ENGINEERING

CEE101: Construction Materials

Time: Three hours

Maximum Marks: 100

Answer ALL Questions

PART A (10x1 = 10 Marks)

1. Granite is a
 - a) Metamorphic rock
 - b) Sedimentary rock
 - c) Igneous rock
 - d) None of the above
2. The main ingredient of a good quality brick earth is
 - a) Magnesia
 - b) lime
 - c) silica
 - d) Alumina
3. Bulking of sand is caused due to
 - a) Air voids
 - b) Surface moisture
 - c) Iscosity
 - d) Clay content
4. Raw materials of white cement are
 - a) Lime stone and china clay
 - b) Powdered quartzite
 - c) Fly ash and burned clay
 - d) All the above
5. Quick lime is
 - a) Generates heat when added to water
 - b) Reacts be used for carbon dioxide
 - c) May be used for white washing
 - d) All the above
6. In concrete, the binding materials is
 - a) cement
 - b) sand
 - c) water
 - d) aggregate
7. Providing of steel in concrete
 - a) increase tensile strength
 - b) increase comp strength
 - c) increase volume
 - d) increase weight
8. Which of the following paint has high reflectivity
 - a) Bronze paint
 - b) Cellulose paint
 - c) Enamel paint
 - d) Casein paint
9. A timber whose cross sectional dimension does not exceed 5cm in either direction, is usually termed as
 - a) Plank
 - b) Sleeper
 - c) Trimming
 - d) Batten

10. Fiber glass

- a) Decay when in contact with water
- b) Does not resist heat
- c) Has poor strength to weight ratio
- d) Is shock proof and fire retardant

PART B (10x2 = 20 Marks)

- 11. What is meant by refractory bricks?
- 12. What are the requirements of good stone?
- 13. List out the uses of cement?
- 14. Define bulking of sand
- 15. List out the test on concrete?
- 16. Distinguish between varnish and distemper
- 17. What are the function of paints
- 18. What are the function of various ingredients of concrete
- 19. Define composite material
- 20. Differentiate fiber glass from metal reinforced plastic

PART C (5x14 = 70 Marks)

21. a) Describe various stages in the manufacturing of building bricks?

(OR)

b) What are the test to be conducted on stone and Explain any two test.

22. a) What are the various types of cement? Give properties and uses for any two cements

(OR)

b) (i) What are the uses of mortar? (7)

(ii) Compare the lime mortar with the cement mortar. (7)

23. a) How will you determine the compressive strength of concrete in the laboratory?

(OR)

b) List out the types compaction and explain any two type of compaction.

24. a) (i) Describe the thermo mechanical treatment? (7)

(ii) Discuss the advantages of timber over other engineering material.

(7)

(OR)

b) Describe fully the painting of new wood work.

25. a) What are the different form glass and explain any three.

(OR)

b) Write short notes on

(i) Fiber textile

(ii) Ceramic

(iii) Matel reinforced plastic
