

B.E DEGREE EXAMINATIONS: MAY/JUNE 2014

(Regulation 2013)

Second Semester

CIVIL ENGINEERING

U13CET201:Construction Materials

Time: Three Hours

Maximum Marks: 100

Answer all the Questions:-

PART A (10 x 1 = 10 Marks)

1. Stone generally prepared for railway is
 - a Basalt (or) trap granite
 - b Marble
 - c Sand stone
 - d Slate
2. A first class brick when soaked in water for 24 hours and dried in shade should not show_____
3. The setting out of hydraulic lime and cement is facilitated by presence of
 - a Water
 - b Oxygen
 - c Air
 - d Sand
4. In quick setting cement the compound added is_____
5. Strength of concrete mainly depends on
 - a Water cement ratio
 - b Quality of fine aggregate
 - c Quality of coarse aggregate
 - d Fineness of cement
6. The inert material of a cement concrete mix is_____
7. Teak wood suitable for which of the following
 - a Sports good
 - b Furniture
 - c Railway sleepers
 - d Wooden electric poles
8. As moisture content of wood is reduced, its size_____
9. Which of the following glass is used in railway coaches?
 - a Glass -crete
 - b Wired glass
 - c Anti-actinic glass
 - d Pyrex glass
10. The base material for distemper is_____

PART B (10 x 2 = 20 Marks)

(Not more than 40 words)

11. List out the rock forming minerals
12. What are the characteristics of good brick earth?
13. What are the functions of mortar?
14. What are the constitutions of flyash?
15. What is slump test?
16. Why reinforcement provided in the concrete?
17. Differentiate precast concrete from cast in situ concrete
18. Give the chief characteristics and Engineering uses of "sal"
19. Enumerate the commonly used packing materials
20. Differentiate soda lime glass from flint glass

PART C (5 x 14 = 70 Marks)

(Not more than 400 words)

Q.No. 21 is Compulsory

21. (i) What are the characteristics of good stones? (6)
(ii) What are the characteristics of a First class brick? How will you test the quality of brick? (8)
22. a) (i) What are the various ingredients of Portland cement? Discuss the function played by each ingredient? (7)
(ii) Describe important uses of cement in the construction industry (7)
(OR)
b) (i) Give the function of sand in mortar (7)
(ii) How is lime mortar manufactured? (7)
23. a) What is slump test? What are the steps involved in slump test? Explain
(OR)
b) (i) Write short notes on "Bulking of sand" (7)
(ii) Define water cement ratio? How does it affect the strength of concrete? (7)

24. a) Describe in detail the procedure to be followed for the painting of a new wood works

(OR)

- b) (i) How are fibre boards manufactured? (7)
(ii) What are laminated plastics? State the properties of laminated plastics (7)

25. a) (i) What is composite material? How are composite materials classified? (7)
(ii) Give the properties and uses of gypsum plaster (7)

(OR)

- b) (i) Discuss briefly the applications of geo synthetics in construction Industry. (7)
(ii) List out the types of plastics? Explain any three (7)
