

G 606

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Reg. No.....

Name.....

B.TECH. DEGREE EXAMINATION, MAY 2014

First and Second Semesters

BASIC CIVIL ENGINEERING

(Old Scheme—Supplementary/Mercy Chance—Prior to 2010 Admissions)

[Common for all branches]

Time : Three Hours

Maximum : 100 Marks

Part A

Answer all questions.

Each question carries 4 marks.

1. What is the importance of curing of concrete ?
2. What are the sources of fine aggregates ?
3. Mention qualities of good timber.
4. Give the classification of bricks.
5. Explain bearing capacity. What are its significance in foundations ?
6. What are the different types of bonds in masonry ?
7. What are the temporary adjustments made on a compass ?
8. Explain a tilting level.
9. Explain super elevation and camber.
10. Explain coverage, floor area ratio and its recommended values according to building rules.

(10 × 4 = 40 marks)

Part B

Answer all questions.

Each full question carries 12 marks.

11. Explain manufacturing of cement by wet process.
- Or*
12. What is workability ? What are the factors affecting it ?
 13. Neatly sketch the plan and elevation of a two-way RCC roof slab for a room of size 3.8 m. × 4.2 m. What are its features ? Explain.

Or

14. Discuss different methods of seasoning of timber. Compare and contrast natural and artificial seasoning.

Turn over

15. Describe different types of well foundations. Sketch the detailed section and plan of any one type and explain.

Or

16. With sketches, describe any *three* types of random rubble masonry and their advantages.
17. (a) Explain clearly the principle of chain survey. (4 marks)
- (b) In passing an obstacle in the form of a pond, stations A and D on the mainline, were taken on the opposite sides of the pond. On the left of AD, a line AB, 255 m. long was laid down, and a second line AC, 275 m. long was ranged on the right of AD, the points B, D and C being on the same straight line. BD and DC were then chained and taken to be 125 m. and 137.5 m. respectively. Find the length of AD.

(8 marks)

Or

18. (a) Compare the rise and fall method of reducing levels with height of collimation method. (6 marks)
- (b) List the permanent adjustment of surveyor's compass and explain any *one* of them. (6 marks)
19. With neat sketches, describe the different road markings used and their purposes.

Or

20. Discuss the salient features of the Kerala Municipal Building Act, 1999.

[5 × 12 = 60 marks]