10012

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Reg. No.: _____ Name: _____

FIRST SEMESTER B.TECH DEGREE EXAMINATION, JANUARY 2016

Course Code: CE100

Course Name: BASICS OF CIVIL ENGINEERING

Max. Marks: 100 Duration: 3 Hours

Part A

Answer ALL questions. Each question carries 3 marks

1. Explain relevance of Civil engineering in the overall infrastructural development of the country.
2. Discuss the difference between plinth area and carpet area.
3. Enumerate the principles considered for the survey of a land.
4. Explain different types of steel with their properties.
5. Define bearing capacity of soil.
6. What are the various roofing materials available?
7. List the different types of flooring materials.
8. What are the purposes of air conditioning a building?
9. Write short note on towers.
10. Difference between elevators and escalators.

Part B

Answer any 8 questions (6 x 8 = 48 Marks)

11. List out the types of building as per occupancy. Explain any two, each in about five sentences.
12. Discuss the components of a building with a neat figure.
13. List the steps in the setting out of foundation in centre line method
14. What are the open space requirements you should provide in constructing a building?
15. What are the points to be considered while selecting the position of doors and windows inside a building?
16. Write short notes on Total Station.
17. The following staff readings were observed successively with a level, instrument having been moved after third, sixth and eighth readings: 2.228, 1.606, 0.988, 2.090, 2.864, 1.262, 0.602, 1.982, 1.044, 2.684, meters. Enter the above readings in a page of a level book and calculate R.L. of points if the first reading was taken with a staff held on a bench mark of 432.384 m.
18. What are the constituents of cement and explain the function of each?

19. Write short notes on electronic distance meter and digital level.

20. What are the different kinds of cement available and what is their use?

Part C

Answer any 2 full questions

21. A) Draw neat sketch of the following foundations. (6)

(i) Isolated stepped footing (ii) Cantilever footing (iii) Continuous footing.

B) Draw the elevation and plan of one brick thick wall with English bond (5)

22. A) Explain step by step procedure for finishing of a wall using plastering (5)

B) What is meant by intelligent building? What are the various conditions to be satisfied by intelligent buildings? (6)

23. A) Explain different types of air conditioning systems. (5)

B) What are the major sound proofing materials? Explain briefly. (6)