

10014



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Reg. No. :

Name :

SECOND SEMESTER B.TECH. DEGREE EXAMINATION, MAY/JUNE 2016

Course Code : CE 100

BASICS OF CIVIL ENGINEERING

Max. Marks : 100

Duration : 3 Hours

PART – A

Answer **all** questions. **Each** question carries **3** marks.

(10×3=30 Marks)

1. Explain very briefly about the classification of buildings based on occupancy.
2. 'Orientation is an essential step while planning a building'. Comment.
3. What are the principles of surveying ?
4. List out the commercial forms of steel available.
5. What do you mean by bearing capacity of soil ?
6. Explain the following terms related to brick masonry: Course, Queen closer & Perpend.
7. Explain how to prepare a wall surface for painting.
8. Differentiate between elevators and escalators.
9. What are the purposes of air conditioning of a building ?
10. What are the precautions taken to achieve imperviousness of water tanks ?

PART – B

Answer **any 8** questions.

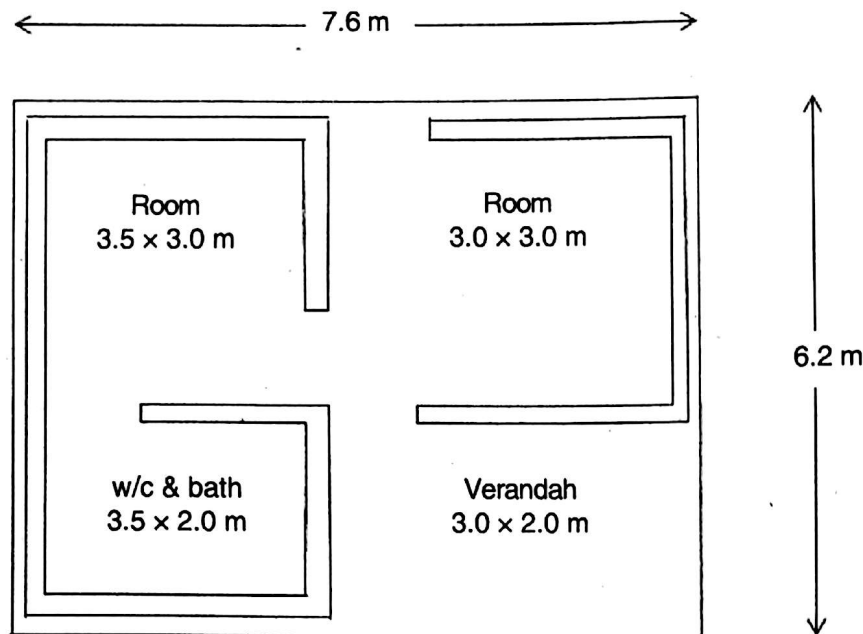
(6×8=48 Marks)

11. Write a short note on various components of a residential building and their functions.
12. Write a note on the importance of civil engineering on infrastructural development of India.

P.T.O.



13. Calculate plinth area, floor area and carpet area for the plan of a building given below: Wall thickness is 30 cm.



14. Explain the need and types of open space requirement for a building.
15. Explain the centre line method adopted for setting out of a building.
16. What is direct ranging and what are the instruments used for ranging ?
17. The following consecutive readings were taken with a dumpy level and a 4 m levelling staff on a continuously slopping ground at a common interval of 30 m: 0.585 on A, 0.930, 1.955, 2.840, 3.645, 0.960, 1.035, 1.680, 2.535, 3.845, 0.950, 1.575, 3.015 on B. The elevation of A was 520.150. The instrument was shifted at 6th and 11th readings.
- Rule out a page of level book and enter the above readings.
 - Find R.L of B.
 - Determine the gradient of line AB.
18. What is the composition of ordinary cement ? Briefly explain grades of cement.
19. Explain the preparation of concrete.
20. What are the characteristics of a good brick ?

PART – C

Answer **any 2** full questions.

21. A) Define :

- i) Span
- ii) Ridge
- iii) Eaves
- iv) Batten
- v) Cleats.

(1×5=5 Marks)

B) Describe the functions and various types of foundations.

(6 Marks)

22. A) Explain the method of applying plaster on a wall surface.

(5 Marks)

B) Explain the concept of intelligent building.

(6 Marks)

23. A) How is sound proofing done in a building ?

(5 Marks)

B) List out the specification of the following :

(6 Marks)

- i) Towers
 - ii) Chimneys
 - iii) Water tanks.
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