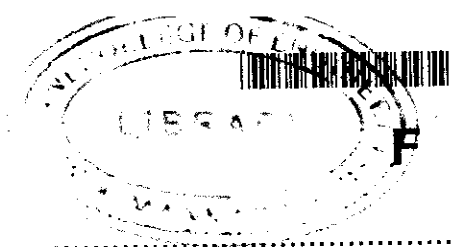


10014



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)**

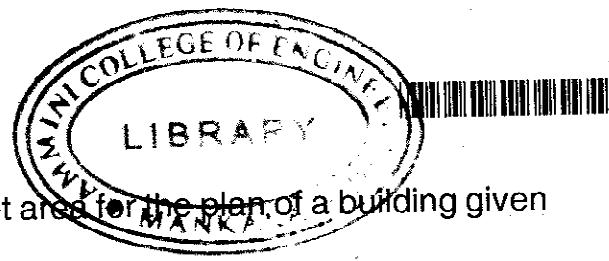
1. Explain very briefly about the classification of buildings based on occupancy.
2. 'Orientation is an essential step while planning a building'. Comment.
3. What are the principles of surveying ?
4. List out the commercial forms of steel available.
5. What do you mean by bearing capacity of soil ?
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**

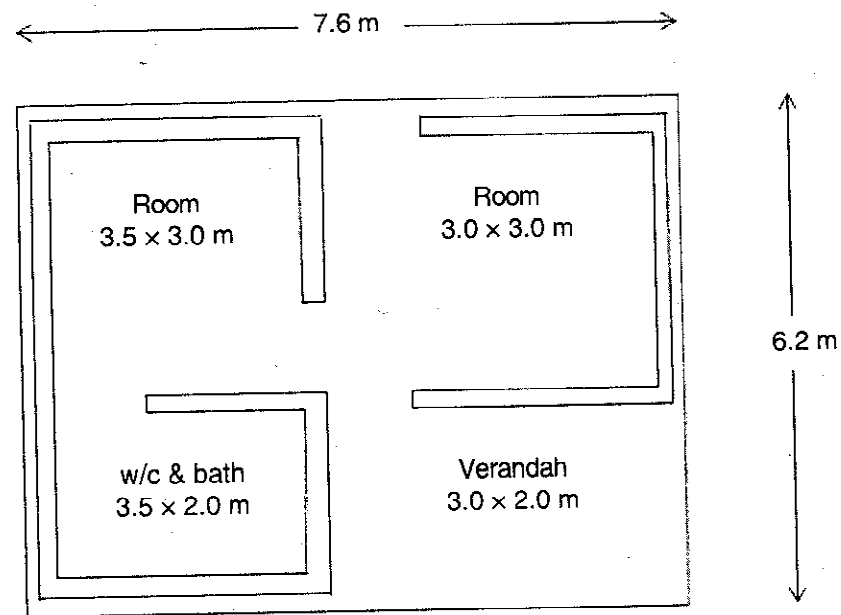
Answer **any 8** questions. **(6×8=48 Marks)**

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.

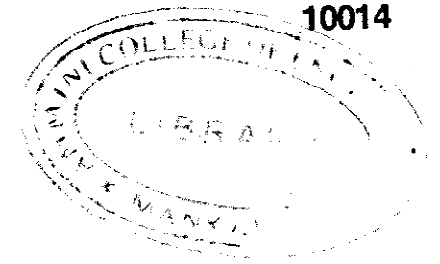
P.T.O.



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 sloping 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 6<sup>th</sup> and 11<sup>th</sup> readings.
- A) Rule out a page of level book and enter the above readings.
- B) Find R.L of B.
- C) 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?



Answer any 2 full questions.

21. A) Define :

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

B) Describe the functions and various types of foundations.

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

B) Explain the concept of intelligent building.

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

B) List out the specification of the following :

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

(1×5=5 Marks)

(6 Marks)

(5 Marks)

(6 Marks)

(5 Marks)

(6 Marks)