

18. List a few important loads acting on the structure and explain any three of them.
19. Explain the different types of beams used in building construction, with neat sketches.
20. Discuss the post and beam structure. Also, write about the failure criteria of beams and columns.
21. Explain the terms
- (i) Equilibrium,
 - (ii) Strength
- and (iii) Stability requirements.
22. Write short notes on :
- (a) Simple tension.
 - (b) Simple compression.
 - (c) Simple bending.s

Register Number :

Name of the Candidate :

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B.Sc. DEGREE EXAMINATION, 2012

(INTERIOR DESIGN)

(SECOND YEAR)

(PAPER - XVI)

203. PRINCIPLES AND CONCEPTS OF STRUCTURES

(Including Lateral Entry)

December]

[Time : 3 Hours

Maximum : 60 Marks

SECTION - A (10× 1=10)

1. *Fill in the blanks :*

1. The combined effect of external forces acting on a body is called
2. Deformation per unit length is called
3. Fe 415 or HYSD bars are used in construction.

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4. Steel exhibits mode of failure.
5. For towers, the major load to be considered is load.
6. The three types of stresses are, and
7. A continuous beam is one which has
 - (a) Only two supports.
 - (b) More than two supports.
 - (c) Only three supports.
 - (d) None of the above.
8. The reason for using reinforced cement in concrete construction is
9. An example of fixed beam is
10. Types of structural arrangements are, and

SECTION - B (4 × 5 = 20)

Answer any FOUR questions.

All questions carry equal marks.

11. Explain the terms stress, strain and modulus of elasticity.
12. Explain the design process of a structure.
13. Explain the applications and uses of any two construction materials.
14. Discuss the various structural requirements of a building.
15. What are the merits and demerits of fixed beam over continuous beam?
16. Explain the post and beam or framed structure.

SECTION - C (3 × 10 = 30)

Answer any THREE questions.

ALL questions carry equal marks.

17. Explain the various types of materials used for building construction.

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