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Name of the Candidate :

B.Sc. DEGREE EXAMINATION DECEMBER 2013.**(INTERIOR DESIGN)****(SECOND YEAR)****203 — PRINCIPLES AND CONCEPTS OF STRUCTURES****(Old Regulations)**

Time : Three hours

Maximum : 60 marks

SECTION A**Answer ALL questions.**Fill in the blanks : **(10 × 1 = 10)**

1. The force of resistance offered by a body against the deformation is called _____.
2. The external force acting on the body is called the _____.
3. The angular deformation ϕ in radian measure represent _____.
4. The horizontal distance between the centre of the end bearings is called _____.
5. If there is absolute fixity at a support the slope at the support will remain _____.
6. _____ is a term applied to a compression member.
7. The process of taking out stones from natural rock bed is known as _____.
8. A good brick earth should contain _____% of alumina.
9. _____ timber is obtained after felling a tree.
10. Stresses introduced by bending moment are called _____.

SECTION B**Answer any FOUR questions. (4 × 5 = 20)**

11. Define modulus of rigidity.
12. Define Hooke's law.
13. What is meant by cantilever beam?

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14. Define encaster beam.
15. Write short notes on neutral axis.
16. Differentiate between semi form active structures and form active structures

SECTION C

Answer any THREE questions.

(3 × 10 = 30)

17. Explain the concept of shear force and bending moment.
 18. Mention the advantages and disadvantages of fixed beam.
 19. Write in detail about the singly reinforced beam.
 20. What are the qualities of a good building stone? Discuss them.
 21. Explain prestressed concrete.
 22. Write short notes on :
 - (a) Resultant force
 - (b) Simple compressor
 - (c) Strength and stability.
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