

22304

23242

3 Hours / 70 Marks

Seat No.

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- Instructions :**
- (1) All Questions are *compulsory*.
 - (2) Answer each next main Question on a new page.
 - (3) Illustrate your answers with neat sketches wherever necessary.
 - (4) Figures to the right indicate full marks.
 - (5) Assume suitable data, if necessary.
 - (6) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. Attempt any FIVE of the following :

10

- (a) State the classification of buildings on the basis of occupancy as per National Building Code.
- (b) State any two functions of foundation of a building.
- (c) Enlist the names of any four means of vertical communication.
- (d) Describe the terms facing and backing in stone masonry.
- (e) State two necessities of Demolition.
- (f) State the two functions of 'Lintel' and 'Chajja'.
- (g) State the necessities of 'Plastering'.



2. Attempt any THREE of the following : 12

- (a) Differentiate between load bearing structure and framed structure (any four points).
- (b) Explain timbering and strutting in excavation.
- (c) Describe any four characteristics of good stone masonry.
- (d) Describe any four types of doors used in building construction.

3. Attempt any THREE of the following : 12

- (a) Explain the necessity of 'Scaffolding' and 'Shoring'.
- (b) Mention the precautions to be taken while plastering.
- (c) Explain the two causes of non-structural cracks in building construction and remedial measures.
- (d) Describe the procedure of water-proofing used in slabs stating its importance in building construction.

4. Attempt any THREE of the following : 12

- (a) Define substructure and superstructure. Give their components also.
- (b) Explain the procedure of preparation of surface along with the method of application of colour wash paint on the wall.
- (c) Enlist any two causes of 'Settlement of Foundation' and suggest remedial measures for the same.
- (d) Draw a neat sketch of king post truss and label its parts.
- (e) Define formwork and state the requirements of a good formwork.

5. Attempt any TWO of the following :**12**

- (a) Explain any two methods of dewatering of foundation trenches.
- (b) Distinguish between brick masonry and stone masonry.
- (c) Suggest suitable type of window for the following buildings :
 - (i) Cinema Hall
 - (ii) School
 - (iii) Enclosed staircase
 - (iv) Bathroom
 - (v) Cement Godown
 - (vi) Sloping roof

6. Attempt any TWO of the following :**12**

- (a) Explain raft foundation with neat sketch and explain its suitability.
 - (b) Draw labelled sketch of English bond and Flemish bond showing plan and elevation.
 - (c) Draw labelled sketch of fully panelled door with frame for an opening size of 1200 mm × 2200 mm. Assume suitable scale.
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