

22304

21222

3 Hours / 70 Marks

Seat No.

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15 minutes extra for each hour

- 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) Enlist any four types of shallow foundations.
- (c) Enlist any four types of bonds used in brick masonry.
- (d) Define the terms 'Winder and Nosing' used in staircase.
- (e) Define the term 'Settlement of foundation'.
- (f) State the two functions of 'Lintel and Chajja'.
- (g) State the necessities of 'Plastering'.

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P.T.O.

- 2. Attempt any THREE of the following : 12**
- (a) Explain any four building components and state their function.
 - (b) Classify the Deep foundations based on materials and functions.
 - (c) Describe the precautions to be observed in stone masonry construction.
 - (d) Describe any four types of doors used in building construction.
- 3. Attempt any THREE of the following : 12**
- (a) Explain the necessity of ‘underpinning’ and ‘shoring’.
 - (b) Illustrate the methods of application of paint and suggest relevant type of paint for different surfaces.
 - (c) Explain the necessity and importance of waterproofing in building construction.
 - (d) Describe various safe procedures for demolition of building structures.
- 4. Attempt any THREE of the following : 12**
- (a) Compare various parameters of load bearing and framed structures.
 - (b) Suggest the flooring material for a given type of building with justification.
 - (c) Enlist causes of ‘Settlement of Foundation’ and suggest remedial measures for the same.
 - (d) Describe the procedure for ‘double coat plastering’.
 - (e) Draw neat sketches of any two types of scaffolding and label the component parts.

5. Attempt any TWO of the following : 12

- (a) Suggest suitable type of foundation for steel columns carrying heavier loads with justification.
- (b) Define formwork and discuss requirements of good formwork.
- (c) Draw plan and sectional elevation of Dog-Legged staircase, assuming suitable dimensions and label its parts.

6. Attempt any TWO of the following : 12

- (a) Describe the procedure for line out of the foundation for framed structure having isolated column footings and state the importance of diagonal check.
 - (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 a opening size of 1200 mm × 2200 mm. Assume suitable scale.
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