

# 22304

**12526**

**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 answer 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 building structures as per National Building Code – 2005.
- b) Define job layout and site clearance.
- c) Enlist any four types of bonds used in Brick masonry.
- d) State two functions of window sill.
- e) Discuss four materials used for waterproofing.
- f) State any two functions of foundation of a building.
- g) State two necessities of Demolition.

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- 2. Attempt any THREE of the following: 12**
- a) Differentiate between load bearing structure and framed structure.
  - b) Explain timbering and strutting with a neat sketch.
  - c) State various requirements of good bricks Masonry.
  - d) State necessity of pointing. Explain any two types of pointing with neat sketch.
- 3. Attempt any THREE of the following: 12**
- a) Explain the necessity of ‘Scaffolding and ‘Shoring’.
  - b) Describe the procedure for ‘double coat plastering’.
  - c) Enlist the causes of settlement of foundation.
  - d) Differentiate between ‘End Bearing Pile’ and ‘Friction Pile’.
- 4. Attempt any THREE of the following: 12**
- a) Define formwork and state the requirements of a good formwork.
  - b) Enlist and draw various fixtures and fastenings for doors and windows.
  - c) Classify pile foundation based on materials and functions.
  - d) Suggest the roofing material for various types of pitched roofs with justification.
  - e) Explain Grouting and Guniting.
- 5. Attempt any TWO of the following: 12**
- a) Draw a neat labelled sectional view showing different components of building from foundation to parapet, for a load bearing brick masonry wall.
  - b) Distinguish between Brick masonry and stone masonry.
  - c) Suggest suitable type of window for following building –
    - i) School
    - ii) Hospital
    - iii) Cinema Hall
    - iv) Staircase
    - v) WC and Bathroom
    - vi) Residential House.

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**Marks**

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

**12**

- a) Explain raft foundation with neat sketch and explain its suitability.
  - b) As a 'Supervisor', state precautionary measures you will observe while constructing stone masonry.
  - c) Draw plan and sectional elevation of Dog-legged staircase for floor to floor height of 3.0 m.
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