

22304

12425

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) Define the terms substructure and superstructure used in building construction.
- (b) State the functions of window, sill.
- (c) State any two purposes of foundation.
- (d) Define Underpinning.
- (e) State the necessity of painting.
- (f) Define Guniting and Grouting.
- (g) State necessities of demolition.

2. Attempt any THREE of the following :

12

- (a) Differentiate between load bearing structure and framed structure (any four points).
- (b) Differentiate between 'End bearing pile' and 'Frictional pile'.
- (c) Define facing, backing, hearting and through-stone.



- (d) Suggest suitable type of window for the following :
- | | |
|-----------------|------------------------|
| (i) Cinema hall | (ii) Residential house |
| (iii) Staircase | (iv) Library of hostel |

3. Attempt any THREE of the following : 12

- (a) Classify the buildings as mentioned in National Building Code (2016) with example of each.
- (b) State any four precautions to be taken while marking layout on ground.
- (c) Describe any eight characteristics of a good stone.
- (d) Enlist various fixtures and fastening for doors and windows. Draw any two of them.

4. Attempt any THREE of the following : 12

- (a) Compare stone masonry construction with brick masonry construction.
- (b) Describe any four forms of 'Rubble Masonry' with sketches.
- (c) Draw neat sketch of fully panelled door.
- (d) Explain four defects in plastering with neat sketch.
- (e) State various causes of settlement of structure.

5. Attempt any TWO of the following : 12

- (a) Explain raft foundation with neat sketch and explain its suitability.
- (b) Describe any eight characteristics of good stone masonry.
- (c) Draw plan and elevation of dog legged staircase for floor to floor height of 3 m.

6. Attempt any TWO of the following : 12

- (a) Explain timbering and strutting in excavation with neat sketch.
 - (b) Enlist different types of shoring. Explain any one in detail.
 - (c) Enlist different types of floor finishes. Describe the procedure of laying a floor finish on a newly constructed slab.
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