



22304

12223

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 building structure as per National Building Code-2005.
- (b) Define sub-structure and super-structure.
- (c) Define lintel and sill.
- (d) Define Winders and Baluster.
- (e) Provide the names of any four means of vertical communication.
- (f) Name any four tools required for construction of stone masonry.
- (g) State the various water proofing materials.

2. Attempt any THREE of the following :

12

- (a) Distinguish between Load bearing structure and Framed structure.
- (b) Along with the neat sketches, distinguish between Bearing pile and Friction pile.
- (c) Describe any eight points to be observed in the construction of stone masonry.
- (d) State the various requirements of good bricks.



- 3. Attempt any THREE of the following :** **12**
- (a) Explain the necessity of shoring and underpinning used in building construction.
 - (b) Mention the precautions to be taken while plastering.
 - (c) Describe the procedure of grouting and guniting.
 - (d) State the ill-effects of dampness in the building.
- 4. Attempt any THREE of the following :** **12**
- (a) Explain with neat sketch the layout of framed structure by centre line method.
 - (b) State any eight points you will observe in the construction of brick masonry work.
 - (c) Draw a neat sketch of king post truss.
 - (d) Explain the procedure of surface along with the method of application of colour wash paint on the wall.
 - (e) Explain timbering and strutting in excavation.
- 5. Attempt any TWO of the following :** **12**
- (a) Suggest relevant type of foundation with sketch for commercial building on black cotton soil.
 - (b) Distinguish between Brick masonry and Stone masonry.
 - (c) Suggest the type of window to be provided for obtaining light and ventilation from two adjoining sides. Draw sectional plan of suggested window.
- 6. Attempt any TWO of the following :** **12**
- (a) Draw neat sketches of any six fixtures and fasteners for doors and windows.
 - (b) Describe Indian standard specifications for cleaning and treatment of forms and also stripping time of any four form work.
 - (c) Suggest the economical type of foundation where ground is of refilled soil and its bearing capacity is low. Draw the neat sketch of foundation suggested.

