

17308

11920

3 Hours / 100 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. (A) Attempt any SIX of the following :

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- (a) Define foundation and its function.
- (b) State the various types of stone masonry.
- (c) State the function of lintel.
- (d) Enlist any four component part of staircase.
- (e) State the suitability of escalation and ramp.
- (f) State the purpose of pointing.
- (g) State the necessity of plinth protection.
- (h) State two advantages of prestressed concrete.

(B) Attempt any TWO of the following :

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- (a) State any four building components with their function.
- (b) Explain any one method of “layout for load bearing structure”.
- (c) Explain timbering and strutting in excavation.

2. Attempt any FOUR of the following :**16**

- (a) Explain four general design principles of earthquake resisting building.
- (b) Draw a neat sketch of section of load bearing structure from foundation to parapet.
- (c) State any eight precautions while marking layout on ground.
- (d) Distinguish between shallow foundation and deep foundation.
- (e) State advantages and disadvantages of prefabrication.
- (f) Define following terms :
 - (i) facing
 - (ii) backing
 - (iii) through stone
 - (iv) cornice

3. Attempt any FOUR of the following :**16**

- (a) Distinguish between stone masonry and brick masonry.
- (b) Draw neat labelled sketch of batten ledged braced frame door.
- (c) State different types of Arch and explain any one.
- (d) Explain dog legged staircase with neat sketch.
- (e) Explain construction and suitability of concrete floor.
- (f) Differentiate between pitched roof and flat roof.

4. Attempt any FOUR of the following :**16**

- (a) Draw neat sketches of king post truss and queen post truss.
- (b) State any four defects in plastering work and give remedies on it.
- (c) Explain the process of surface preparation and painting for old wooden surface.
- (d) Suggest the suitability of following painting :
 - (i) White wash
 - (ii) Colour wash
 - (iii) Distemper
 - (iv) Plastic emulsion
- (e) Explain water proofing with its necessity and importance.
- (f) Draw neat sketch of (i) column formwork (ii) Beam formwork.

5. Attempt any FOUR of the following :**16**

- (a) Explain necessity and importance of Termite proofing.
- (b) Explain necessity and use of Ready mix concrete.
- (c) Explain under-reamed pile foundation.
- (d) Explain the procedure of vacuum dewatering concreting.
- (e) Explain steel fibre reinforced concrete.
- (f) State the applications of Roller Compacted Concrete and High Impact Resisting Concrete.

P.T.O.

6. Attempt any TWO of the following :

16

- (a) Explain pile foundation and well foundation with neat sketch.
 - (b) Explain with neat sketch English bond and Flemish bond.
 - (c) Explain soil reinforcing techniques with its four necessities and strengthening of embankment.
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