



17308

11718

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) *Use of Non-programmable Electronic Pocket Calculator is permissible.*
 - (7) *Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.*

1. A) Attempt **any six**.

Marks
12

- a) State any two functions of foundation.
- b) State any four tools required for construction of brick masonry.
- c) Suggest suitable type of door for
 - i) Main door of residential building
 - ii) Garage.
- d) State any four means of vertical communication.
- e) In connection with stair define the terms – pitch, tread.
- f) What is pointing ? State any two types of pointing.
- g) What is rebarring technique ?
- h) List any four accessories required for prestressing work.

B) Attempt **any two**.

8

- a) State one function each of plinth, roof, parapet and beam.
- b) State any four precautions to be taken while marking layout on ground.
- c) What is meant by timbering and strutting ? Draw a neat sketch of runner system in section.

2. Attempt **any four**.

16

- a) Compare framed and load bearing structure on any four points.
- b) State any four general design principles of earthquake resisting structure while planning stage.
- c) What is meant by job layout ? State the factors on which it depends.
- d) What is shallow foundation ? State the situations where combined column footing and raft foundation are suitable.
- e) Classify the piles as per function and materials used.
- f) State any four requirements of good stone masonry.

P.T.O.

**3. Attempt any four.**

- a) Compare stone masonry and brick masonry on any four points.
- b) Draw a neat labelled sketch of fully panelled door in elevation.
- c) What is lintel ? State one thumb rule used in designing bearing of lintel. State any four types of lintels.
- d) State any four requirements of good stair.
- e) Suggest a suitable type of floor finish for
 - i) Living room
 - ii) Bath room
 - iii) Hospital
 - iv) Foot path.
- f) Compare pitched and flat roof on any four points.

4. Attempt any four.

16

- a) Draw a neat sketch of lean to roof naming the parts.
- b) What is plastering ? State any four purposes of plaster.
- c) State the procedure of application of paint on new wooden surface.
- d) State any eight precautions to be taken while plastering.
- e) Draw a neat sketch of wooden form work for rectangular column in plan naming the parts.
- f) Describe the procedure of water proofing of sanitary block after construction.

5. Attempt any four.

16

- a) State any four requirements of good foundation.
- b) State any eight causes of cracks in building.
- c) State any four applications of geotextiles.
- d) Write the procedure of tremix concrete for floors.
- e) Define ready mix concrete. State any four advantages of it.
- f) Differentiate between high impact resisting concrete and roller compacted concrete on any four points.

6. Attempt any two.

16

- a)
 - i) Draw a neat sketch of open caisson in section showing components.
 - ii) State any four precautions to be taken for foundations in black cotton soil.
 - b)
 - i) State any four advantages of hollow concrete block masonry.
 - ii) Draw a neat sketch of double scaffolding showing components.
 - c)
 - i) With neat sketch explain tremy method of concreting.
 - ii) State four advantages and four disadvantages of prefabrication.
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