



17308

11819

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 :

(6×2=12)

- a) Define foundation with one purpose of it.
- b) Define frog and state its purpose.
- c) Enlist various sizes of door for residential building.
- d) Enlist types of stairs.
- e) Define :
 - i) Pitch
 - ii) Newel post.
- f) Enlist types of pointing.
- g) Enlist any four causes of cracks in masonry wall.
- h) Define prestressed concrete.

B) Attempt **any two** of the following :

(4×2=8)

- a) Enlist four components of superstructure and draw figure of typical pitched roof.
- b) State the necessity and methods of timbering and strutting.
- c) Enlist four tools used for excavation with neat sketch.

2. Attempt **any four** of the following :

(4×4=16)

- a) Differentiate between load bearing and framed structure.
- b) State four design principles of earthquake resisting building.
- c) State the precautions to be taken while marking layout on ground.
- d) State the requirements of good foundation.
- e) Draw neat sketch of roft foundation and state its suitability.
- f) Differentiate between brick masonry and stone masonry.

P.T.O.



3. Attempt **any four** of the following :

(4×4=16)

- a) Describe in brief English bond with neat sketch.
- b) Enlist any four types of Arch and state function of arch.
- c) Draw neat sketch of fully pannelled door.
- d) State the requirement of good stair.
- e) State any four types of floors with their suitability.
- f) Describe in brief mezzaine floor, stating its location and use.

4. Attempt **any four** of the following :

(4×4=16)

- a) Draw neat sketch of king post truss.
- b) Describe in brief necessity of plastering.
- c) Enlist any four types of painting and four defects in painting.
- d) State any four defects in plastering, stating its causes.
- e) State the necessity and material used in plinth protection.
- f) State the necessity and importance of water proofing.

5. Attempt **any four** of the following :

(4×4=16)

- a) Draw neat sketch of formwork for R.C.C. beam.
- b) Define prefabricated construction and state its advantages.
- c) State the precautions to be taken while constructing foundation in black cotton soil.
- d) State the advantages and limitations of RMC.
- e) State any two properties and two uses of :
 - i) High impact resisting concrete.
 - ii) Steel fibre reinforced concrete.
- f) Enlist the equipments used in tremie concreting and state the applications of tremie concreting.

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

(8×2=16)

- a) Describe in brief with neat sketch :
 - i) Under reamed pile
 - ii) Well foundation.
 - b) i) State the necessity and types and scaffolding.
ii) State the requirement of good masonry.
 - c) State the necessity of soil reinforcing and enlist uses of geosynthetic material.
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