



17308

15116

3 Hours / 100 Marks

Seat No.

--	--	--	--	--	--	--	--

- 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) List out any four types of pile foundation.
 - b) Define corbel, cornice.
 - c) List any four types of doors.
 - d) State the various means of vertical communications.
 - e) Define the following terms with reference to stairs :
 - i) Winders
 - ii) Landing.
 - f) State any two purposes of plastering.
 - g) State two causes of cracks in masonry work.
 - h) Give four components of door frame.
- B) Attempt any two of the following :** **(4×2=8)**
- i) Define superstructure. List six components of superstructure of residential building.
 - ii) Give four precautions you will take while marking foundation of residential building.
 - iii) Explain timbering and strutting for foundation trench.
- 2. Attempt any four :** **(4×4=16)**
- a) Explain the functions of :

i) Sill	ii) Lintel
iii) Plinth	iv) Weather shed
 - b) Explain the role of maintenance and repairs in the useful life of a building.
 - c) Explain the procedure for plinth filling.
 - d) State any four purposes of foundation.

P.T.O.

17308

**Marks**

- e) State the situations where you would recommend the following type of foundation :
- | | |
|----------------------|------------------------|
| i) well foundation | ii) stepped foundation |
| iii) raft foundation | iv) pile foundation |
- f) Compare stone masonry and brick masonry with respect to any four points.

3. Attempt any four :**(4×4=16)**

- a) Draw a neat sketch of masonry and show the following components :
- | | |
|---------------|-------------|
| 1) facing | 2) backing |
| 3) bond stone | 4) hearting |
- b) Enlist the functions of an lintel and sketch a R.C.C. lintel in section.
- c) Which type of door you would suggest for the following situation.
- | |
|---------------------------------------------|
| 1) Main entrance of a residential bungalow. |
| 2) Bathroom and w/c. |
| 3) Shop. |
| 4) Computer laboratory. |
- d) State four requirements of good stair case.
- e) Explain tremix flooring. Also state where it is provided.
- f) Describe procedure of laying pavement blocks.

4. Attempt any four :**(4×4=16)**

- a) Compare pitched roof and flat roof with respect to any four points.
- b) List four defects in plastering. Describe any one in detail.
- c) Explain the procedure of internal plaster.
- d) Distinguish between plastering and pointing.
- e) State causes of settlement of foundation.
- f) Mention the purpose of guniting and grouting.

5. Attempt any four :**(4×4=16)**

- a) Suggest construction places recommended for epoxy and crack fills.
- b) State methods of pre-tensioning and post tensioning.
- c) State all methods of dewatering.
- d) Explain Tremy method for under water concreting.
- e) State four advantages of RMC.
- f) Suggest the places where soil reinforcing technique is adopted now a days.

6. Attempt any two :**(8×2=16)**

- a) Define Cofferdam. Give the classification of Cofferdam. Explain single walled cofferdam construction with neat sketch.
- b) Why expansion joints are provided in brick masonry ? Describe the procedure for construction of expansion joint in brick masonry.
- c) State the methods of pre-fabrication. Give four advantages and disadvantages of pre-fabrication.