

17308

13141

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: 12
- i) What is the purpose of foundation?
- ii) Define header and stretcher.
- iii) Give four components of door frame.
- iv) Define winders and kite steps.
- v) List any four forms of stairs.
- vi) Give two precautions to be taken while plastering.
- vii) Define the terms :
- 1) Guniting
- 2) Grouting
- viii) Define pretensioning and post-tensioning.

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b) Attempt any **TWO** of the following:

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- i) What is mean by foundation and superstructure of the building?
- ii) Explain two methods to check the right angle corners of given line out.
- iii) Explain “timbering and strutting” with a neat sketch.

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

16

- a) List four components of superstructure of building and give functions of each.
- b) Write general rules for earthquake resistant building.
- c) Explain excavation and foundation.
- d) Classify foundation into different types.
- e) State various precautions to be taken while constructing foundation in black cotton soil.
- f) Draw a neat sketch of stone masonry and show the following components.
 - i) Facing
 - ii) Backing
 - iii) Bond stone
 - iv) Hearting.

- 3. Attempt any FOUR of the following:** **16**
- a) State any eight points you will observe in the construction of brick masonry work.
 - b) Describe with the help of neat sketch, components of two panel single shutter door.
 - c) State advantages of aluminium sliding window and louvered window.
 - d) State requirement of good-staircase with respect to the following points:
 - i) Location
 - ii) Length of flight
 - iii) Head room
 - iv) Pitch of stair
 - e) Draw a queen post roof truss and label the components.
 - f) Compare pitch roof and flat slab.
- 4. Attempt any FOUR of the following:** **16**
- a) Describe the procedure of laying shahabad stone floor.
 - b) Explain any two defects in plastering with its neat sketch.
 - c) Enumerate four types of pointing with neat sketch.
 - d) Explain in brief :
 - i) Neeru finishing
 - ii) White washing
 - e) Describe any two causes of formation of cracks in walls and measures adopted to prevent them.
 - f) Explain in detail necessity of plinth protection.

- 5. Attempt any FOUR of the following:** **16**
- a) Suggest remedial measures to avoid settlement.
 - b) State four precautions taken during prestressing of structural member.
 - c) Draw a neat sketch and explain raft foundation.
 - d) What is roller compacted concrete?
 - e) What is steel fibre reinforced concrete?
 - f) Give four situations, where vacuum dewatering concreting is suitable in construction.
- 6. Attempt any TWO of the following:** **16**
- a) Explain with a neat sketch
 - i) Friction piles
 - ii) End bearing piles
 - b) Differentiate with the help of sketch between coursed and uncoursed rubble masonry. Mention its suitability.
 - c) Explain various equipments and accessories required for prestressing
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