

22204

21222

3 Hours / 70 Marks

Seat No.

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15 minutes extra for each hour

- 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. Attempt any FIVE of the following :

5 × 2 = 10

- (a) Mention any two uses of termite proofing.
- (b) State uses of epoxy.
- (c) Give two uses of lime.
- (d) Define quarrying of stones.
- (e) State any two uses of particle board.
- (f) Draw the neat sketch of standard brick.
- (g) State uses of :
 - (i) Coir fibre
 - (ii) Bagasse

2. Attempt any THREE of the following :

3 × 4 = 12

- (a) Enlist any four basic areas of civil engineering with scope for applications of construction materials.
- (b) State any four criteria for selection of construction materials.
- (c) State the different types of construction material.
- (d) Draw the structure of timber.

- 3. Attempt any THREE of the following :** **3 × 4 = 12**
- (a) Enlist various test conducted on bitumen & explain one of them.
 - (b) State & explain defects in timber.
 - (c) State the two properties of asphalt & bitumen.
 - (d) State any four properties of coarse aggregate.
- 4. Attempt any THREE of the following :** **3 × 4 = 12**
- (a) State any four types of glass with its suitability.
 - (b) Draw the flow diagram of wet process of manufacturing of cement.
 - (c) List any four special bricks with their use.
 - (d) State common field test on bricks.
 - (e) Define wall cladding. State two merits & demerits of it.
- 5. Attempt any THREE of the following :** **3 × 4 = 12**
- (a) Enlist four properties of thermal insulating material.
 - (b) State any two properties & uses of glass fibre.
 - (c) State properties & application of Damp proof material.
 - (d) State different types of mortars & explain one of them.
 - (e) List the four properties of POP in building construction.
- 6. Attempt any THREE of the following :** **3 × 4 = 12**
- (a) State any two properties & uses of paint.
 - (b) What is meant by fly ash ? State any four properties of fly ash.
 - (c) Write any two uses of :
 - (i) Saw dust
 - (ii) Ferrocement
 - (d) Write any four application of construction waste.
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