

22204

12425

3 Hours / 70 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) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. Attempt any FIVE of the following :

10

- (a) State the role of Civil Engineering in human life.
- (b) Enlist any four basic areas of Civil Engineering.
- (c) State the situation where you can use clay as a construction material.
- (d) List any four uses of plywood.
- (e) Define Particle board and Veneers.
- (f) State any two uses of "Plaster of Paris".
- (g) Give any two uses of granite and marble polishing waste.

2. Attempt any THREE of the following :

12

- (a) Describe broad classification of materials.
- (b) Explain the criteria for selection of construction material by a Civil Engineer.
- (c) Describe four steps in operation of stone blasting.
- (d) Explain defects in timber with neat labelled sketches.



- 3. Attempt any THREE of the following : 12**
- (a) Explain various types of tiles based on their use.
 - (b) Discuss field Tests on Bricks.
 - (c) Draw the flow chart of manufacturing of cement by wet process.
 - (d) Explain the method by which water proofing of existing old slab can be done.
- 4. Attempt any THREE of the following : 12**
- (a) Explain with neat sketch patterns provided in the dressing of stone.
 - (b) State any four types of glass with its suitability.
 - (c) Explain jute as a construction material with uses.
 - (d) Explain any four properties of geosynthetic material and its application in construction.
 - (e) Explain the process of distempering.
- 5. Attempt any THREE of the following : 12**
- (a) Discuss Properties of Lime. Also state its types.
 - (b) Draw cross section of timber. Give any four engineering properties of timber.
 - (c) Distinguish between solid concrete block and Hollow concrete blocks.
 - (d) Draw neat sketches of
 - (i) Conventional bricks
 - (ii) Standard bricks all the dimensions
 - (e) Write two uses of each
 - (i) Fly ash
 - (ii) Blast furnace slag
- 6. Attempt any THREE of the following : 12**
- (a) State four types of Special Mortars and give one use of each.
 - (b) Describe properties of good paint.
 - (c) Explain about agro waste material. State its importance in construction.
 - (d) Write any four uses of Artificial Sand.
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