

17209

15162

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.

Marks

1. **Attempt any TEN :**

10 × 2 = 20

- (a) State the role of Environmental Engg. in human life.
- (b) State different types of construction materials.
- (c) State any two defects occur in Timber.
- (d) Distinguish between stone and rock.
- (e) State any two application of Construction Management.
- (f) State detailed classification of cement.
- (g) Define particle board and veneers.
- (h) List any two types of Fibres.
- (i) Mention any two uses of termite proofing materials.
- (j) State any two names of thermal insulating materials.
- (k) State any four characteristics of good tiles.
- (l) Mention chemical and mechanical properties of blast furnace slag.

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2. Attempt any FOUR : **4 × 4 = 16**

- (a) State any four criteria for selection of construction material.
- (b) State any four roles of civil engineering in human life.
- (c) List the requirements of good building stone.
- (d) What is meant by quarrying of stone and state different methods of quarrying from bedrock.
- (e) Define bitumen. State any two properties and two uses of it.
- (f) Draw a neat labelled sketch of structure of timber and state the properties of heart wood.

3. Attempt any FOUR : **4 × 4 = 16**

- (a) Give the procedure of field slaking of lime for plaster or white washing.
- (b) What is meant by soil ? State the suitability of sand, silt and clay in construction work.
- (c) Enlist the different types of tar. State any two properties and uses of it.
- (d) State any four common field tests on bricks.
- (e) Give the importance of flooring tiles and roofing tiles in building and give two names of it.
- (f) Define wall cladding. State two merits and demerits of it.

4. Attempt any FOUR : **4 × 4 = 16**

- (a) State any four types of glass with its suitability.
- (b) What is meant by particle board ? State any two properties and uses of it.
- (c) Draw a flow diagram of wet process of manufacturing of cement.
- (d) Define artificial sand with its suitability.
- (e) What are the different properties of glass ?
- (f) Give two advantages and two disadvantages for precast concrete products and write any two properties of it.

5. Attempt any FOUR :**4 × 4 = 16**

- (a) Write any two properties and uses of Glass fibres.
- (b) What is fibre ? Write any two examples where different types of fibres used.
- (c) What do you mean by geosynthetic material ? Mention applications of it.
- (d) State properties and classification of damp proofing materials.
- (e) Suggest the treatment for following :
 - (i) Water leakages in the slabs
 - (ii) Building to save from white ants
 - (iii) To reduce unwanted heat
 - (iv) To reduce noise in particular area
- (f) List any four properties of thermal insulating materials.

6. Attempt any FOUR :**4 × 4 = 16**

- (a) Enlist any four properties of good paint.
 - (b) List four properties of Linoleum.
 - (c) What are the ingredients of good mortar and enlist how you decide good mortar.
 - (d) What is meant by flyash and state any four properties of flyash.
 - (e) Write any four applications of construction waste.
 - (f) Write use of Rubber waste, Bagasse rice husk and Coir fibres.
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