



17209

11819

3 Hours / 100 Marks

Seat No.

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- Instructions :**
- (1) *All questions are **compulsory**.*
 - (2) *Illustrate your answers with neat sketches **wherever** necessary.*
 - (3) *Figures to the **right** indicate **full** marks.*
 - (4) *Assume suitable data, if **necessary**.*
 - (5) *Use of Non-programmable Electronic Pocket Calculator is **permissible**.*
 - (6) *Mobile Phone, Pager and any other Electronic Communication devices are **not permissible** in Examination Hall.*

Marks

1. Attempt **any ten (Two marks each)** :

20

- a) State any two applications of construction management.
- b) Enlist any four basic areas of civil engineering.
- c) State constituents of good quality bricks.
- d) Give standard dimension of i) Conventional Bricks ii) Standard Bricks.
- e) List any four different types of cement.
- f) Write any two advantages of pre-cast block.
- g) Enlist any four different types of paints.
- h) State any two situations where lime mortar can be used.
- i) Distinguish between Stone and Rock.
- j) Define Green timber and converted timber.
- k) List any four types of fibres.
- l) List any four types of buildings where sound insulation is necessary.
- m) Define water proofing and damp proofing.
- n) List any two properties of bagasse.

2. Attempt **any four (Four marks each)** :

16

- a) Give any four properties of eco-friendly materials.
- b) Draw a cross section of trunk of tree.
- c) List any four criteria for selection of construction materials.
- d) Enlist any four defects in timber.
- e) Enlist types of bituminous material used in construction and explain any one.
- f) Explain the manufacturing process of fat lime.

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3. Attempt **any four (Four marks each)** : 16
- a) Enlist any four field test on cement.
 - b) Write any four characteristics of good tiles.
 - c) List any four common field test carried out on Bricks.
 - d) Explain wet process of manufacturing of cement.
 - e) State properties of fine aggregate and coarse aggregate.
 - f) State any four types of glass with its suitability.
4. Attempt **any four (Four marks each)** : 16
- a) State the various safety precautions to be taken while performing the operation of blasting.
 - b) Define Asphalt, write any two properties of asphalt.
 - c) State the requirements of good building stone.
 - d) Enlist any four properties of good timber.
 - e) List any four properties of plywood.
 - f) State the advantages of artificial sand over natural sand.
5. Attempt **any four (Four marks each)** : 16
- a) Write any four properties of damp proofing materials.
 - b) Write short note on Asbestos fibres.
 - c) Write any four uses of termite proofing materials.
 - d) Explain Geo-synthetic materials.
 - e) Suggest the treatment for following
 - i) Water leakages in the slabs
 - ii) Protection from white ants.
 - iii) To reduce unwanted heat
 - iv) To reduce noise in particular area.
 - f) List any four properties of thermal insulating material.
6. Attempt **any four (Four marks each)** : 16
- a) Write any four applications of construction waste.
 - b) Explain in details linoleum.
 - c) Define mortar, state any two properties of good mortar.
 - d) What is Rice husk and state its importance in construction.
 - e) State any two properties and uses of flyash.
 - f) State the importance of flooring tiles and roofing tiles in building and give two names of it.
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