

17209

**21819**

**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) Assume suitable data, if necessary.
  - (5) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

**Marks**

**1. Attempt any TEN of the following :**

**10 × 2 = 20**

- (a) Enlist any four types of cement.
- (b) Define the term "Soil".
- (c) State any two applications of quantity surveying.
- (d) State role of environmental engineering in human life.
- (e) Explain characteristics of good timber.
- (f) State the use of sun-mica.
- (g) State any two applications of Transportation Engineering.
- (h) Enlist types of fibres.
- (i) State any two properties of PoP.

[1 of 4]

**P.T.O.**

17209

[2 of 4]

- (j) State any two artificial materials used in construction.
- (k) State any two uses of coconut leaves.
- (l) State name of any two paints used for painting.
- (m) State any two field test carried on brick.
- (n) State any two properties of balustrades.

2. Attempt any FOUR of the following :

4 × 4 = 16

- (a) Explain the geological classification of rocks.
- (b) State the importance of frog and draw labelled sketch of conventional brick.
- (c) Enlist the various damp-proofing materials.
- (d) Explain hydration of cement.
- (e) State various properties of lime.
- (f) Enlist the various laboratory tests carried on cement.

3. Attempt any FOUR of the following :

4 × 4 = 16

- (a) State any two uses of jute and coir.
- (b) Define adulteration of cement and explain its importance.
- (c) Distinguish between fat lime and hydraulic lime.
- (d) Enlist any two properties of glass fibre and plastic fibre.
- (e) State any two uses and properties of rubber wood.
- (f) State various properties of Asphalt.

**4. Attempt any FOUR of the following :****4 × 4 = 16**

- (a) State any four characteristics of good tiles.
- (b) Enlist the tools and plants required for stone dressing.
- (c) Explain in brief the types of Aggregate.
- (d) Explain earthquake engineering and infrastructure development as basic areas in civil engineering.
- (e) State the various tests performed on lime and explain any one of them.
- (f) State any two properties and uses of artificial timber.

**5. Attempt any FOUR of the following :****4 × 4 = 16**

- (a) State importance of flooring tiles and roofing tiles in building and mention two names of it.
- (b) State any two uses and properties of ferrocrete.
- (c) Define coir fibres and state any two uses.
- (d) Explain the importance of soil in civil engineering work.
- (e) State the various types of glass.
- (f) Explain the suitability of sand, silt and clay in construction work.

**6. Attempt any FOUR of the following :****4 × 4 = 16**

- (a) State any four brand names of waterproofing and damp proof material.
- (b) Enlist four properties of linoleum.
- (c) Define rubber waste and give any three uses of it.

**P.T.O.**

- (d) State the application of following material :
- (i) Jute
  - (ii) Artificial timber
  - (iii) Epoxy
  - (iv) Geonet
- (e) Define “mortar”. Enlist various types of mortars with their use. (any two)
- (f) State any two uses and properties of arecanut trunk.
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