

22204

11819

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) Assume suitable data, if necessary.
 - (6) Use of Non-programmable Electronic Pocket Calculator is permissible.
 - (7) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

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| 1. Attempt any FIVE of the following : | (10) |
| (a) State the factors affecting selection of construction materials. | 2 |
| (b) Define slaking of lime. | 2 |
| (c) State any two types of glass along with its uses. | 2 |
| (d) List the materials used for water proofing. | 2 |
| (e) Enlist the types of paints. | 2 |
| (f) Define baggage. State its uses. | 2 |
| (g) Enlist any two natural and artificial construction materials. | 2 |
| 2. Attempt any THREE of the following : | (12) |
| (a) Explain the criteria for selection of construction materials for different civil engineering structures on basis of their strength and durability. | 4 |
| (b) State the requirements of a good building stone. | 4 |
| (c) Describe the scope of construction material in environmental engineering. | 4 |
| (d) Define lime and explain manufacturing of lime by continuous kiln with neat sketch. | 4 |

- 3. Attempt any THREE of the following : (12)**
- (a) Explain the manufacturing of burnt clay brick. 4
 - (b) Enlist the different sound insulating materials and also state their suitability. 4
 - (c) Draw the flow chart of manufacturing of cement by wet process. 4
 - (d) State the uses of veneers and laminated boards. 4
- 4. Attempt any THREE of the following : (12)**
- (a) Enlist the methods of quarrying and explain any one in brief. 4
 - (b) State the characteristics of a good brick. 4
 - (c) Describe in brief termite proofing. 4
 - (d) Define plaster of paris. State its uses. 4
 - (e) State the advantages and disadvantage of pre-cast concrete. 4
- 5. Attempt any THREE of the following : (12)**
- (a) Explain the defects in timber with neat sketch. 4
 - (b) Explain various types of cement and also state the uses. 4
 - (c) Define artificial sand. State the uses of artificial sand. 4
 - (d) State the properties of thermal insulating materials. 4
 - (e) Define seasoning of timber. Explain artificial seasoning with sketch. 4
- 6. Attempt any THREE of the following : (12)**
- (a) Define lime mortar. Explain its properties. 4
 - (b) State the uses of fly ash and blast furnace slag. 4
 - (c) State the properties and uses of varnishes. 4
 - (d) Define rice husk. State the uses of rice husk. 4
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