

22204

22232

3 Hours / 70 Marks

Seat No.

--	--	--	--	--	--	--	--

- 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 role of Civil Engineering in Human Life.	2
(b) Define bitumen and state different forms of bitumen.	2
(c) State detailed classification of cement.	2
(d) Write any two situations where lime mortar can be used.	2
(e) Define :	2
(1) Rice Husk	
(2) Blast Furnace Slag	
(f) State properties of Eco-friendly building materials.	2
(g) State any four characteristics of good tiles.	2
2. Attempt any THREE of the following :	12
(a) Write any four criteria for selection of construction materials.	4
(b) State the requirement of good building stone.	4
(c) Give broad classification of construction materials.	4



- (d) Compare asphalt, bitumen and tar with respect to 4
- (1) Setting time
 - (2) Use
- 3. Attempt any THREE of the following : 12**
- (a) Explain the procedure of manufacturing of burnt brick. 4
 - (b) Write any two advantages and disadvantages of glass cladding. 4
 - (c) Draw a flow diagram of wet process of manufacturing of cement. 4
 - (d) Explain any four properties of geosynthetic materials and its application in construction field. 4
- 4. Attempt any THREE of the following : 12**
- (a) Draw a cross section of trunk of tree. 4
 - (b) Define wall cladding and describe the process of wall cladding. 4
 - (c) State properties and classification of damp proofing materials. 4
 - (d) State any two properties and situations where sound insulating material is used. 4
 - (e) Enlist any four properties of good paint. 4
- 5. Attempt any THREE of the following : 12**
- (a) What is quarrying of stones ? State methods of quarrying. 4
 - (b) Enlist various tests conducted on bitumen and explain any one of them. 4

- (c) State and give function of any four constituents of a good brick earth. 4
- (d) State types and any two uses of pre-cast concrete products. 4
- (e) Write two uses of following (each) : 4
- (1) Fly ash
 - (2) Construction waste
 - (3) Rubber waste
 - (4) Saw dust
- 6. Attempt any THREE of the following : 12**
- (a) Enlist properties of thermal insulating materials. 4
- (b) Explain the method by which water proofing of existing old slab can be done. 4
- (c) Enlist the properties of ferrocrete. 4
- (d) What is construction waste ? How it is applicable in Civil Engineering ? 4
-

