

Total No. of printed pages = 2

19/3rd Sem/UCE304

2021

**BUILDING MATERIALS AND CONSTRUCTION**

Full Marks – 100

Time – Three hours

The figures in the margin indicate full marks  
for the questions.

Answer *all* questions.

1. (a) In a building construction, define the role of materials in terms of safety issue and functional design. 5
- (b) Why do we need curing ? 5
- (c) What do you mean by prefabrication in construction? Define its advantages and disadvantages. 10
2. (a) Write the physical characteristics and chemical composition of all the following materials : 10
  - (i) Pozzolana
  - (ii) Fly ash.
- (b) Elaborate segregation and bleeding of concrete. 10

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3. (a) Describe in details about the following test/  
experiment of brick : 10
- (i) Water absorption
  - (ii) Efflorescence.
- (b) What do you mean by Ideal mortar ? Describe  
in details about its properties. 10
4. (a) Write in details about the following :  
4×3=12
- (i) Igneous rock
  - (ii) Stone dressing
  - (iii) Rubble masonry.
- (b) Write in details about the various defects in  
timber. Also, mention its preventive treatments. 8
5. (a) Write in details about composition of paints. 5
- (b) Describe in details the following : 5×3=15
- (i) Role of admixtures in fresh concrete.
  - (ii) Transporting methods of concrete.
  - (iii) Bonds for brick work.

