

Time: 3 Hours

Marks: 80

- Instructions: (1) Question No.1 is compulsory  
(2) Answer any *Three Questions* from the remaining questions.  
(3) Draw neat sketches wherever essential.

- Q.1. Solve any Five out of Six 4 Marks each  
A Classify the basic construction materials used for building construction.  
B Explain merits of admixtures.  
C Write any five types of Paints used in Building construction.  
D What is damp proofing and explain importance of damp proofing.  
E Explain manufacturing process of concrete.  
F What is RMC? Explain with advantages & disadvantages.
- Q.2. Solve any Four out of Six 5 Marks Each  
A What is Seasoning of timber? Explain any one natural method of seasoning of Timber in Details.  
B Enlist properties of hardened concrete. Explain any one in detail.  
C Explain various laboratory test of aggregate. Explain any one test in detail.  
D Explain factors affecting on selection of construction material?  
E Explain different types of Glass used in construction.  
F Write short note on Mortar with its various types.
- Q.3.A Solve any Two out of Three 6 Marks Each  
A Explain the difference between Fine and Course Aggregates with respect to their properties and function in construction.  
B Write note on Types their uses of cement. (any 6)  
C Explain stepwise procedure of Concrete Mix Design by IS 10262 Method.
- Q.3.B Solve any Two out of Three 4 Marks Each  
A What is durability ? Explain factors affecting on durability of concrete.  
B Explain difference between Nominal Mix and Design Mix of concrete.  
C Why RMC is becoming popular in days than concrete in-situ? Explain.
- Q.4. Solve any Five out of Six 4 Marks Each  
A What is NDT of concrete ? When it is required ?  
B Which are the various tests to find out workability of concrete? Describe any one test of workability in detail.  
C Explain in difference between waterproofing admixture and Bonding admixture.  
D Explain laboratory tests of cement. ( any 3)  
E Explain manufacturing process of burnt clay brick.  
F Explain wood properties required for use in construction.

Q.5. Solve any Two out of Three 10 Marks Each

- A Explain importance of water/cement ratio of concrete.
- B Why curing is required to fresh concrete? Explain any 3 methods of curing of concrete.
- C Draw a proportionate sketch of RMC plant and various component parts.  
( any 5)

Q.6. Solve any Four out of Five 5 Marks Each

- A What is Durability ? Explain factors affecting on Durability of concrete.
- B What is varnish? Where it is used?
- C What are the various methods of NDT? Describe any one with sketch.
- D What is sound insulating material? Give any two material which can used for sound insulating purpose.
- E Write short note on “ Plaster of Paris” used in construction.