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Total No. of Pages : 01

Total No. of Questions : 08

M.Tech. Structural Design (2016 & Onwards) (Sem.-2)

MATERIAL SCIENCE

Subject Code : MTSD-108

M.Code : 74295

Time : 3 Hrs.

Max. Marks : 100

INSTRUCTION TO CANDIDATES :

1. Attempt any FIVE questions out of EIGHT questions.
2. Each question carries TWENTY marks.

1. a) What are the classification of materials?
b) What are the physical and chemical properties of materials?
2. Write a short note on :
a) Structure of solid material
b) Diffusion mechanism of solid
3. What are components of atomic binding? Draw the atomic number and the periodic table. Explain the classes of elements.
4. a) Write a note on “Substitutional solid solution”.
b) For what purpose we use substitutional solid solution and Interstitial solid solution. Illustrate.
5. Define ceramic materials. How ceramics are made and what are the types of clay and their common ceramic uses.
6. What are the types of organic materials? How these are useful for soils?
7. Write a short note on :
a) Examples of Composite materials
b) Performance
8. a) Explain in detail the hydration mechanism in cement and concrete.
b) Role of admixtures in cement and concrete.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.