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Total Number of Pages : 01

M.TECH

AR-18

M.TECH 1ST SEMESTER EXAMINATIONS(BACK), NOV/DEC 2019
SE-MSEPE1042

ADVANCED CONSTRUCTION MATERIALS

Time: 3 Hours

Max Marks : 70

The figures in the right hand margin indicate marks.

PART-A**(10 X 2=20 MARKS)****1. Answer the following questions.**

- What do you mean by lightweight concrete?
- What is Bauschinger effect?
- Define strength theory.
- Name few admixtures used in concrete.
- What are the types of corrosion?
- What is the concept of FRC?
- Give an example of accelerator and retarder.
- What are the factors affecting workability?
- What do you mean by geopolymer?
- Define GGBS?

PART-B**(5 X 10=50 MARKS)****Answer any five questions from the following.**

- State the design of Lightweight concrete mix.
 - What are the factors affecting the properties of fibre reinforced concrete?
- State the applications of polymers.
 - Describe the properties of ferro-cement.
- Discuss the effect of GGBS on fresh concrete.
 - What are the types of corrosion?
- Explain the various industrial waste materials used in concrete and discuss its mechanical and physical properties.
 - What do you mean by rheology of concrete? Discuss its properties.
- What are sealants? What are its functions? Explain different types of sealants.
 - What is y ash? What is its production mechanism? Explain its effect on fresh concrete.
- What are the advanced development in FRC?
 - What are the advantages of Ferro cement?
- Write Short notes on
 - Corrosion mechanism
 - Sulphate attack