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Total Number of Pages : 01

M.TECH

AR-17

M.TECH 1<sup>ST</sup> 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 hardened concrete?
- Explain water cement ratio.
- Define sulphur attack.
- What is the effect of fly ash on hardened concrete?
- Give an example of accelerator and retarder.
- Distinguish between plasticizers and super plasticizers.
- State the different types of material used for preparation of Ferro cement.
- What do you mean by high density concrete?
- Define rheology of concrete.
- What is polymer foam? What is its use?

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

- What do you mean by elastomeric bearing and resilient seating? Discuss in brief.
  - State the types of fibers and materials used in fiber reinforced concrete.
- What do you mean by workability of concrete? Distinguish between segregation and bleeding.
  - Explain any one laboratory test to measure the workability of concrete with sketch.
- What are the reasons for corrosion of concrete and how does it affect the durability.
  - What precautions need to be taken for hot weather concreting?
- What is ready mix concrete? Discuss on the classification.
  - State the uses of ready mix concrete.
- Describe various admixtures in concrete.
  - state the uses of various admixture in concrete.
- Explain about the various fiber reinforced plastic in sandwich panels .
  - State the applications for various fiber reinforced plastic in sandwich panels?
- Explain any one laboratory test to measure the workability of concrete with sketch.
  - What do you mean by workability of concrete and how it affects the concrete?

