



Registration No:

--	--	--	--	--	--	--	--	--	--

M.TECH

Total Number of Pages : 1

M.TECH 1ST SEMESTER REGULAR EXAMINATIONS, DECEMBER 2018

ADVANCED CONSTRUCTION MATERIALS

Branch: SE, Subject Code: MSEPE1042

(Regulations 2018)

Time: 3 Hours

Max Marks : 70

Question Code:RD18002077

PART-A (10 X 2=20 Marks)

1. Answer the following questions.

- What are the advantages and disadvantages of lightweight concrete?
- What do you mean by bauschinger effect?
- Define rheology of concrete.
- How can you avoid corrosion for reinforced steel?
- State the role of accelerator and retarder in Concrete preparation.
- What is the advantage of geopolymer concrete?
- What is the effect of fly ash on hardened concrete?
- Justify the use of admixture in concrete.
- Distinguish between plasticizers and super plasticizers.
- State the different types of material used for preparation of Ferro cement.

PART-B (5 X 10=50 Marks)

Answer any five questions from the following.

- What do you mean by non-destructive method of concrete? [5]
 - Explain various methods of non-destructive tests? [5]
 - How concreting is done in extreme weather conditions? Discuss in detail. [5]
 - Describe the mechanical & deformational behavior and microstructure of hardened concrete. [5]
 - Explain about the various fiber reinforced plastic in sandwich panels. [5]
 - What are the reasons for corrosion of concrete and how does it affect the durability? [5]
 - What do you mean by rheology of concrete? What are various parameters to determine the suitability of concrete mix? [5]
 - Explain quality control measures for concrete through inspection and testing? [5]
 - Explain various factors to control the creep and shrinkage behavior of concrete [5]
 - What do you mean by workability of concrete and how it affects the concrete? [5]
 - What are the reasons for corrosion of concrete and how does it affect the durability. [5]
 - What precautions need to be taken for hot weather concreting? [5]
- 8 Write short notes on [5]
- High strength concrete [5]
 - Ferro cement [5]

==0==