D17002139

Registration No: | | | | | | | | | | |

Total Number of Pages : 01 **M.TECH**

M.TECH 1ST SEMESTER REGULAR EXAMINATIONS, DECEMBER 2017

ADVANCE CONSTRUCTION MATERIALS

Branch: SE, Subject Code:MSEPE1042

Time: 3 Hours

Max Marks : 70

The figures in the right hand margin indicate marks.

PART-A (2X10=20 MARKS)

1. Answer the following questions .

a) Give an example of lightweight concrete.

b) Distinguish between segregation and bleeding.

c) Explain water cement ratio.

d) What are the advantages and disadvantages of lightweight concrete?

e) What do you mean by bauschinger effect?

f) What is the advantage of fiber reinforced concrete?

g) State the composition of ordinary Portland cement.

h) Define rheology of concrete.

i) How can you avoid corrosion for reinforced steel?

j) What do you mean by GGBS?

PART-B (5 X 10=50 MARKS)

Answer any five questions from the following.

2. **a**. What do you mean by rheology of concrete? What are various parameters to determine the suitability of concrete mix?

b. What do you mean by workability of concrete? Distinguish between segregation and bleeding?

3. a. What do you mean by non-destructive method of concrete?

b. Explain various methods of non-destructive tests?

4. a. Describe the various factors which control the creep and shrinkage behavior of concrete.

b. Describe the method of preparation of light weight concrete.

5. **a**. Describe various mechanical and physical properties of fiber reinforced concrete.

b. Discuss the classification and use of ready mix concrete.

6. a. Explain about the various fiber reinforced plastic in sandwich panels.

b. State the applications for various fiber reinforced plastic in sandwich panels.

7. a. What is ready mix concrete? Discuss on the classification.

b. State the uses of ready mix concrete?

8. a**.** What are the reasons for corrosion of concrete and how does it affect the durability.

b. What precautions need to be taken for hot weather concreting?

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