

BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE, PILANI

HYDERABAD CAMPUS

First Semester 2022-23

CE F230 Civil Engineering Materials

Mid Semester Test (Regular- Closed Book)

Date:05-11-2022

Max. Marks:0.5*50 = 25 Duration :90 minutes

➤ Describe briefly point by point. Draw neat sketches wherever necessary.

1. Briefly describe factors affecting the selection of construction materials. **(10 m)**
2. What are the basic advantages and disadvantages of concrete? **(7 m)**
3. What are the major Bogue's compounds of cement? Discuss their role in hydration of cement. **(8 m)**
4. Determine the fineness modulus of aggregate for the following result of sieve analysis. What does the result indicate? **(7 m)**

Sieve	10mm	4.75mm	2.36mm	1.18mm	600µm	300µm	150µm	75µm
% Passing	100	92	74	55	23	12	9	7

5. Compare cement and lime used as binding materials. **(8 m)**
6. Write short notes on **(5x2=10 m)**
 - (a) Ferro Cement
 - (b) Grout
 - (c) Guniting
 - (d) Ready Mixed Concrete (RMC)
 - (e) Silica Fume

***** END*****