

Total No. of Questions – [4]

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G.R. No.

U218-115(T1)

OCTOBER 2018/ IN-SEM (T1)

S. Y. B. TECH. (CIVIL) (SEMESTER - I)

COURSE NAME: CONCRETE TECHNOLOGY

COURSE CODE: CVUA21175

(PATTERN 2017)

Time: [1 Hour]

[Max. Marks: 30]

(*) Instructions to candidates:

- 1) Answer Q.1 OR Q.2 and Q.3 OR Q.4.
- 2) Figures to the right indicate full marks.
- 3) Draw sketches whenever required

Q.1) a) What are the different types of cement? Explain any two of them in details

[6 marks]

b) What is alkali aggregate reaction and their effect on quality of concrete?

[6 marks]

c) Write initial & final setting times of cement. State their importance

[4 marks]

OR

Q.2) a) What is Hydration of cement and Explain factors affecting hydration of cement

[6 marks]

b) Write down six different functions of admixtures?

[6 marks]

c) What are the different classifications of aggregate according to the shape?

[4 marks]

Q.3) a) Define workability and explain any four factors affecting workability.

[6 marks]

b) Explain in detail of any two tests for Fresh Concrete.

[4 marks]

c) Evaluate the reasons for shrinkage of concrete.

[4 marks]

OR

Q.4) a) What are the remedial measures to avoid: i. Segregation; ii. Workability
(Minimum 3 points each)

[6 marks]

b) What is curing? Which are the methods of curing? Explain any one in brief

[4 marks]

c) Discuss the following tests for concrete: (i) Flow test (ii) slump test

[4 marks]