

Total No. of Questions : 4]

SEAT No. :

PA-4958

[Total No. of Pages : 2

[6008]-203

S.E. (Civil) (Insem)

CONCRETE TECHNOLOGY

(2019 Pattern) (Semester-II) (201010)

Time : 1 Hour]

[Max. Marks : 30

Instructions to the candidates:

- 1) Answer Q.1 or Q.2, Q.3. or Q.4.
- 2) Figures to the right indicate full marks.
- 3) Neat diagrams must be drawn wherever necessary.
- 4) Use of non programmable calculator is allowed in the examination.
- 5) Your answers will be valued as a whole.
- 6) If necessary assume suitable data and indicate clearly.

Q1) a) Explain the field testing of cement. [5]

b) Enlist: [4]

- i) Four types of cement and
- ii) Four cement manufacturer in India.

c) Calculate the fineness modulus for following data obtained from the sieve analysis on the sample of aggregate. Total weight of aggregate taken for sieve analysis= 1050 gm.

Sieve Size (mm)	4.75	2.36	1.18	0.6	0.3	0.15
Weight retained (gm)	0	250	250	250	200	100

[6]

OR

Q2) a) Explain the role of admixture in concrete. [4]

b) Classify the admixture and explain in brief any two of them. [6]

c) Explain air entraining agents and factor affecting amount of air entrainment in a mix. [5]

P.T.O.

- Q3)** a) List the sequential stages in manufacture of concrete and explain batching of concrete. [6]
- b) Define the workability of concrete and explain any two factors affecting the workability of concrete. [4]
- c) Give broad classification of methods adopted for curing of the concrete and explain water curing method. [5]

OR

- Q4)** a) Explain compaction factor test for measuring workability of concrete. [6]
- b) Suggest the degree of workability for the following situation: [4]
- i) Concrete used for road structures vibrated by power operated machine.
  - ii) Concrete used for road structures vibrated by hand operated machine.
  - iii) Normal reinforced concrete manually compacted.
  - iv) For pumping and tremie placing of concrete.
- c) Write short note on segregation and bleeding of concrete. [5]

