

Total No. of Questions : 4]

SEAT No. :

**PB9**

**[6268]-203**

[Total No. of Pages : 2

**S.E. (Civil) (Insem)**

**CONCRETE TECHNOLOGY**

**(2019 Pattern) (Semester - IV) (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 wet process of manufacturing of Portland 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 = 1000 gm. [6]

Sieve Size (mm)	4.75	2.36	1.18	0.6	0.3	0.15
Weight retained (gm)	0	100	250	350	200	100

**OR**

- Q2)** a) Classify the admixture and explain in brief any two of them. [6]  
b) Give examples of plasticizer and super-plasticizers. [4]  
c) Explain air entraining agents and factors affecting amount of air entrainment in a mix. [5]

- Q3)** a) Enlist factors affecting workability of concrete and explain in brief any two of them. [6]  
b) Enlist methods adopted for compaction of the concrete and explain compaction by vibration. [5]  
c) Give broad classification of methods adopted for curing of the concrete and explain water curing method. [4]

**OR**

**P.T.O.**

- Q4)** a) Enlist tests commonly employed to measure workability and slump cone test in detail. [6]
- b) What do you mean by segregation and bleeding of concrete? [4]
- c) Explain the effect of admixture on workability of concrete. [5]

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