

Total No. of Questions : 4]

SEAT No. :

PF197

[Total No. of Pages : 1

APR-26/SE/Insem-243

S.E. ( Civil) (Insem)

CONCRETE TECHNOLOGY

(2019 Pattern) (Semester - IV) (201010)

Time : 1 Hour]

[Max. Marks : 30

Instructions to the candidates:

- 1) Solve Q.1 or Q.2 and Q.3 or Q.4.
- 2) Figures to the right indicate full marks.
- 3) Draw neat diagram wherever necessary.
- 4) Use of logarithmic table, slide rule and electronic pocket calculator are allowed.
- 5) Assume suitable data if necessary, stating it clearly.

- Q1)** a) Explain the hydration process of the Cement. [5]  
b) Enlist Lab testing of the cement and define the initial and final setting time of the cement. [5]  
c) Classify the admixture and explain in brief any two of them. [5]

OR

- Q2)** a) Write a short note on the classification of aggregates. [5]  
b) What are the different types of mineral admixture? Explain any two mineral admixtures. [6]  
c) What are the different methods of cement production? Explain anyone in detail with the flow diagram. [4]

- Q3)** a) What are the different methods to measure workability? Explain any one of them. [5]  
b) Explain the importance of compaction of concrete. What are the different methods of compaction? [6]  
c) Give a broad classification of methods adopted for curing of concrete and explain the water-curing method. [4]

OR

- Q4)** a) State and explain various operations involved during the concreting from mixing to finishing of concrete surface. [5]  
b) Define workability. State and explain factors affecting workability. [6]  
c) Match the pair [4]  
i) Low workability 1) 50-100mm  
ii) Medium workability 2) More than 150mm  
iii) High workability 3) 25-75 mm  
iv) Very high workability 4) 100-150 mm

