

Total No. of Questions : 6]

SEAT No. :

P12

[Total No. of Pages : 2

**APR-17/BE/Insem.-13**  
**B.E. (Civil)**  
**FERROCEMENT TECHNOLOGY**  
**(2012 Pattern) (Elective) (Semester - II)**

*Time : 1Hour]*

*[Max. Marks : 30*

*Instructions to the candidates :*

- 1) *Answer Q1 or Q2, Q3 or Q4, Q5 or Q6.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right side indicate full marks.*

- Q1)** a) Define Ferrocete and write the advantages and disadvantages of Ferrocete? [5]
- b) What are the different raw materials used in forming Ferrocete and the skills required in fabricating and casting of Ferrocete structures? [5]

OR

- Q2)** a) Compare ferrocement with fiber reinforced concrete? [5]
- b) Discuss in detail the various types of meshes used in ferrocement construction? [5]

- Q3)** a) Enlist the various parameters affecting the properties of ferrocete. Explain in short the properties affected by volume fraction and specific surface?[5]
- b) Explain tying of the mesh and mortaring the mesh during construction of the ferrocete structure? [5]

OR

- Q4)** a) Draw the curve and explain three stage behaviour of ferrocete in tension?[5]
- b) Write note on protective surface treatments? [5]

*P.T.O.*

- Q5)** a) Explain the natural forms of ferrocrete like Rain drop as a solid sphere, Soap bubble as a spherical shell and shape of an egg? [5]  
b) What are the design recommendations made by ACI while designing the ferrocrete structure by limit state or working stress method? [5]

OR

- Q6)** a) Evaluate the predominant stresses in the structural members like Cantilever beam, T- beam and Pipe? [5]  
b) Discuss working stress method for design of ferrocement? [5]

