

**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**

FIRST SEMESTER M.TECH. DEGREE EXAMINATION, DECEMBER 2017

CIVIL ENGINEERING

**10CE6113: Advanced Concrete Technology**

Max. Marks : 60

Duration:3Hrs

**Part A***(Answer any two questions : 2x9 = 18 Marks)*

1. (i) Write a short note on Ready Mix Concrete (5 Marks)  
(ii) Explain suitable placing methods for ready mix concrete. (4 Marks)
2. Explain temperature problems in concrete (9 Marks)
3. What are the precautions to be taken in case of  
(i) Hot weather concreting (4.5 Marks)  
(ii) Cold weather concreting (4.5 Marks)

**Part B***(Answer any two questions : 2x9 = 18 Marks)*

4. What is Ferrocement? Enlist the casting techniques of Ferrocement (9 Marks)
5. (i) Write a short note on Fiber Reinforced Concrete. (4 Marks)  
(ii) What are the different properties of Fiber Reinforced Concrete (5 Marks)
6. Explain the behavior of Fiber Reinforced Concrete in Tension (9 Marks)

**Part C***(Answer any two questions : 2 x12 = 24 Marks)*

7. Write a note on  
(i) High density concrete (6 Marks)  
(ii) High performance concrete (6 Marks)
8. Explain the effect of end condition, moisture condition, capping and H/D ratio of concrete test sample on its strength (12 Marks)
9. Explain two Non destructive Tests performed on hardened concrete (12 Marks)

