Reg. No.\_\_\_\_

Name:

## **APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY** FOURTH SEMESTER B.TECH DEGREE EXAMINATION, JULY 2017

Course Code: CE 204

### Course Name: CONSTRUCTION TECHNOLOGY (CE)

Max. Marks: 100

Duration: 3 Hours

#### PART A

# Answer any two questions.

| 1. | a) What is seasoning of timber? Explain any one method of seasoning.                | (5)      |
|----|---|----------|
|    | b) What are the types of reinforcing steel used in construction? Explain their feat | ures.(5) |
|    | c) Describe the features and use of glass as a construction material.               | (5)      |
| 2. | a) What are the processes involved in the manufacture of concrete?                  | (5)      |
|    | b) Explain any one test performed in fresh concrete.                                | (5)      |
|    | c) Describe the need to use chemical admixture in concrete.                         | (5)      |
| 3. | a) Differentiate between segregation and bleeding.                                  | (5)      |
|    | b) Explain the mix proportioning of concrete by IS method.                          | (10)     |
|    |   |          |

#### PART B

#### Answer any two questions.

| 4. | a) What are the requirements of a good foundation?                            | (5)  |
|----|---|------|
|    | b) Explain with figures, any four types of foundation.                        | (10) |
| 5. | a) Explain the principle of filler slab.                                      | (5)  |
|    | b) Explain with figure, the constructional features of rat-trap bond masonry. | (5)  |
|    | c) What are cavity walls? Explain their advantages and disadvantages.         | (5)  |
| 6. | a) Sketch any two types of steel roof truss.                                  | (5)  |
|    | b) Sketch and mark the different parts of a typical arch.                     | (5)  |
|    | c) Explain any one damp proofing method                                       | (5)  |

### PART C

#### Answer any two questions.

| a) What is slip form construction? Describe its features.                             | (5)   |
|---|---|
| b) What is prefabrication? What are the advantages and disadvantages of prefabricated |   |
| construction?   | (5)   |
| c) Explain the need for providing construction joint. Draw and explain any two types  |   |
| construction joints.  | (10)  |
| a) What are the major reasons for failures in RCC structures?                         | (5)   |
| b) Describe any three causes of foundation failure.                                   | (15)  |
| a) What is retrofitting? What is meant by global and local retrofitting?              | (5)   |
| b) Explain any three methods to retrofit a reinforced concrete column.                | (15)  |
|   | <ul> <li>b) What is prefabrication? What are the advantages and disadvantages of prefaconstruction?</li> <li>c) Explain the need for providing construction joint. Draw and explain any two construction joints.</li> <li>a) What are the major reasons for failures in RCC structures?</li> <li>b) Describe any three causes of foundation failure.</li> <li>a) What is retrofitting? What is meant by global and local retrofitting?</li> </ul> |

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