

Reg No.: _____

Name: _____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
FOURTH SEMESTER B.TECH DEGREE EXAMINATION, DECEMBER 2018

Course Code: CE204
Course Name: CONSTRUCTION TECHNOLOGY (CE)

Max. Marks: 100

Duration: 3 Hours

PART A

Answer any two full questions. Each question carries 15 marks.

- 1 a) What are the different market forms of timber used in construction industry? 6
- b) What is an admixture? Explain the properties and uses of admixtures in concrete. 9
- 2 a) What is mortar? Explain the different types of mortars used in civil constructions. 9
- b) What is meant by curing of concrete? Discuss the different methods of curing of concrete. 6
- 3 a) Explain the different market forms of steel with neat sketches. Where they are used? 6
- b) Write the steps involved in BIS method of concrete mix design. 9

PART B

Answer any two full questions. Each question carries 15 marks.

- 4 a) Enumerate in detail the preliminary considerations in the selection of foundations. 5
 - b) What is an arch? What are the different types of arches? 5
 - c) Write a note on the different types of roofs used in buildings. 5
 - 5 a) Explain different types of stone masonry with neat sketches 9
 - b) What is DPC? Explain the different methods of providing DPC to a residential building. 6
 - 6 a) Explain, with neat sketches a) Filler slab b) Rat Trap bond masonry 8
 - b) List the various types of flooring materials and the criteria for their choice. 7
- Explain the construction of Timber Floor.

PART C

Answer any two full questions. Each question carries 20 marks

- 7 a) What are the advantages and disadvantages of tall buildings? 6
- b) What are the different modes for vertical transportation? Explain the components of an escalator with neat sketch. 9

- c) What are different types of failures of a building? List out the general reasons for a building collapse. 5
- 8 a) Distinguish between RCC framed buildings and steel framed buildings 6
- b) List out the different types of stairs used in buildings, with neat sketches. 6
- c) What are the causes of failure in RCC structures? Explain with neat sketches 8
- 9 a) Explain the advantages of precast concrete construction. 6
- b) What are the methods of Retrofitting of RCC beams? 8
- c) What are the causes of foundation failures? 6