

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

Name: \_\_\_\_\_

**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**  
**FOURTH SEMESTER B.TECH DEGREE EXAMINATION(S), DECEMBER 2019**

**Course Code: CE204**  
**Course Name: CONSTRUCTION TECHNOLOGY**

Max. Marks: 100

Duration: 3 Hours

**PART A***Answer any two full questions, each carries 15 marks*

Marks

- |   |    |   |   |
|---|----|---|---|
| 1 | a) | How is plywood manufactured? Discuss its classification and uses.             | 9 |
|   | b) | What are the properties and uses of glass?                                    | 6 |
| 2 | a) | Define workability of concrete. What are the factors that affect workability? | 9 |
|   | b) | Discuss the advantages and disadvantages of steel as a construction material. | 6 |
| 3 | a) | Explain the various tests done on hardened concrete.                          | 9 |
|   | b) | Describe briefly the various processes in the manufacturing of concrete.      | 6 |

**PART B***Answer any two full questions, each carries 15 marks*

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|---|----|---|---|
| 4 | a) | When are pile foundations preferred? Explain various types of piles.  | 9 |
|   | b) | Explain the cavity wall construction with a neat sketch. State its advantages.  | 6 |
| 5 | a) | What are the requirements of a good roofing material? Explain the factors to be considered in the selection of a roof material. | 9 |
|   | b) | What are the advantages of (1) filler slab technology and (2) rat trap bond?  | 6 |
| 6 | a) | What are the functions of a lintel? Explain its various types with neat sketches.   | 9 |
|   | b) | Distinguish between plastering and pointing.  | 6 |

**PART C***Answer any two full questions, each carries 20 marks*

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|---|----|--|----|
| 7 | a) | What are the advantages and disadvantages of RCC and steel framed structures?                                | 10 |
|   | b) | List the requirements of a good formwork. Describe various types of formwork.                                | 10 |
| 8 | a) | What are the processes involved in prefabrication? State the advantages and disadvantages of prefabrication. | 10 |
|   | b) | What are the various causes of failure in steel structures? Explain.   | 10 |
| 9 | a) | Explain the various techniques for achieving earthquake resistance in buildings with neat sketches.          | 10 |
|   | b) | Explain the various methods of retrofitting RCC slab with neat sketches.                                     | 10 |