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

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

**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**

Fourth semester B.Tech examinations (S), September 2020

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

Max. Marks: 100

Duration: 3 Hours

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

Marks

- |   |   |    |
|---|---|----|
| 1 | a) Define seasoning of timber. Why this is required? Explain the methods of natural seasoning.    | 6  |
|   | b) How steel is classified based on its carbon content?   | 3  |
|   | c) Discuss the important types of glasses and their uses in construction industry                 | 6  |
| 2 | a) How will you classify sand on the basis of its source?   | 3  |
|   | b) Why is it necessary to compact freshly laid concrete? Explain the methods used for compaction. | 5  |
|   | c) What are admixtures? Explain its types and uses.   | 7  |
| 3 | a) What are the factors affecting workability of concrete?  | 5  |
|   | b) Explain the mix proportioning of concrete by BIS method.                                       | 10 |

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

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|---|---|----|
| 4 | a) Explain the various types of foundations with neat sketches.   | 10 |
|   | b) What are cavity walls? What are its advantages?  | 5  |
| 5 | a) What is scaffoldings? Explain its types.   | 7  |
|   | b) What is DPC? With neat sketches explain how it is provided at different levels of a building.                        | 8  |
| 6 | a) Enumerate the essential requirements of a good floor.  | 5  |
|   | b) State the purpose of using arches in buildings. With neat sketches explain its classification on the basis of shape. | 7  |
|   | c) What is distemping? List down the desirable properties of a good distemper.  | 3  |

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

- |   |  |    |
|---|--|----|
| 7 | a) Draw a typical cross-section of a stair. Label and explain the parts. | 10 |
|---|--|----|

- b) Write a short note on slip form construction. 5
- c) Discuss the advantages and disadvantages of steel framed structures. 5
- 8 a) Write short notes on
  - i) Elevators ii) Escalators iii) Ramp 10
- b) What are the advantages of steel formwork over wooden formworks? 5
- c) Explain the mistakes leading to cracking/collapse of structure due to poor workmanship. 5
- 9 a) Discuss the general reasons for the failure of buildings. 10
- b) Explain the major techniques used for retrofitting RCC slabs. 10

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