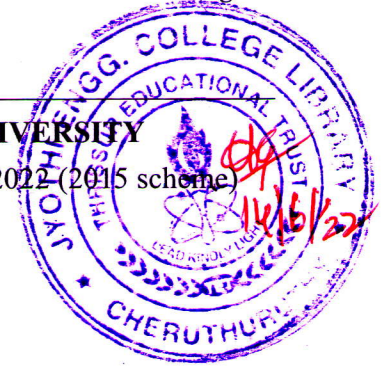


Reg No.: _____

Name: _____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

Fourth Semester B.Tech Degree (S,FE) Examination June 2022 (2015 scheme)

**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) Explain the classification, properties and uses of plastics in construction. | 9 |
| | b) What are the different types of mortar? Mention the advantages of each type. | 6 |
| 2 | a) List various chemical admixtures. Explain the properties and uses of any two. | 9 |
| | b) Enumerate the various uses of steel in construction. | 6 |
| 3 | a) List the various factors affecting the workability of concrete. Explain any three. | 9 |
| | b) Explain the terms, characteristic strength and target strength in mix design. | 6 |

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

- | | | |
|---|---|---|
| 4 | a) Elucidate how filler slab roof and rat trap bond technologies help in achieving the cost effectiveness in buildings. | 9 |
| | b) Explain in detail, the various factors affecting the choice of foundation type. | 6 |
| 5 | a) Explain various types of combined footings with sketches. When are combined footings preferred? | 9 |
| | b) State the advantages and disadvantages of flat roof and sloped roof. | 6 |
| 6 | a) List the various materials used for floor covering. Explain any two stating its merits and demerits. | 9 |
| | b) Explain the various objectives of plastering. | 6 |

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

- | | | |
|---|--|----|
| 7 | a) Explain the various materials used for formwork stating its merits and demerits. | 10 |
| | b) How is the layout of a staircase designed? State the requirements of a good staircase. | 10 |
| 8 | a) Explain the requirements and the process of erection of steel work. | 10 |
| | b) Write a note on the failure of framed buildings and load bearing masonry buildings due to earthquake. | 10 |
| 9 | a) List the various causes of failures in steel structures. Explain any three. | 10 |
| | b) Explain the various methods of column strengthening with sketches. | 10 |
