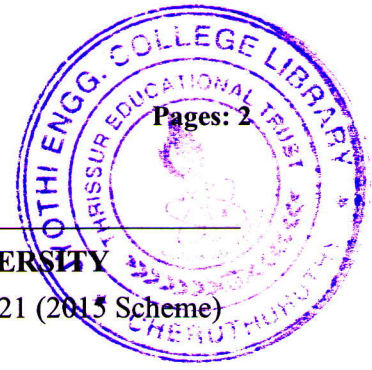


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Reg No.: _____

Name: _____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

Fourth Semester B.Tech Degree (S,FE) Examination August 2021 (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 any three structural steel sections with its specifications. | 8 |
| | b) Discuss the classification of bitumen and their uses in construction industry. | 4 |
| | c) Differentiate between particle board and fibre board. | 3 |
| 2 | a) What are the ingredients used to prepare a mortar? Explain the types of mortars based on the binding materials used. | 3 |
| | b) What is batching? List the methods. | 3 |
| | c) Write a short note on any three tests conducted on aggregates. | 9 |
| 3 | a) What is the main objective of concrete mix proportioning? How will you find out the target strength for designing concrete mix as per BIS procedure? | 5 |
| | b) Define workability? Explain any two tests conducted on fresh concrete to assess workability. | 10 |

PART B

Answer any two full questions, each carries 15 marks

- | | | |
|---|--|----|
| 4 | a) What is foundation? List the purposes of a good foundation. | 5 |
| | b) Explain the different types of stone masonry with neat sketches. | 10 |
| 5 | a) Define the term Cost- effective construction. Describe filler slab and rat-trap bond masonry in detail. | 8 |
| | b) Explain the classification of lintels on the basis of materials used. | 7 |
| 6 | a) What are pitched roofs? Draw a neat sketch to indicate any one pitched roof. | 5 |
| | b) Define i) Sill ii) Style and iii) Sash bar. | 6 |
| | c) Define plastering. State the purpose for which plastering is taken up. | 4 |

PART C

Answer any two full questions, each carries 20 marks

- | | | |
|---|--|---|
| 7 | a) What are formworks? What are the requirements of a good formwork? | 8 |
|---|--|---|

- b) Explain prefabricated construction? Discuss its advantages and disadvantages. 10
- c) What are shear walls? 2
- 8 a) List the types of joints required for large concrete structures. Explain the design requirements of any two joints using neat sketches. 10
- b) Explain the classification of stairs with neat sketches. 10
- 9 a) Explain the causes of failures in RCC and Steel structures. 10
- b) Explain the major techniques used for retrofitting RC beams. 10
