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| **APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY FOURTH SEMESTER B.TECH DEGREE EXAMINATION, DECEMBER 2018** |
| **Course Code: CE204** |
| **Course Name: CONSTRUCTION TECHNOLOGY (CE)** |
| Max. Marks: 100 | Scheme of Evaluation/Answer Key | Duration: 3 hrs |
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| **PART A** |
| **Answer any two full questions. Each question carries 15 marks.** |
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|  |  |  |  |
| 1 | a) | Market forms of timber – particle board, fibre board and plywood each with explanation (3x2) | 6 |
|  | b) | Admixture -Definition ( 2), Types of admixtures and use of each(7) | 9 |
| 2 | a) | Mortar-Definition (2), Types and uses(7) | 9 |
|  | b) | Curing of concrete -Definition (2), Any 4 Methods of curing with brief explanation and where it is applied (4) | 6 |
| 3 | a) | At least 6 different structural steel sections with sketch and use (6x1) | 6 |
|  | b) | BIS Method of Mix Design-Steps (9) | 9 |
| **PART B** |
| **Answer any two full questions. Each question carries 15 marks.** |
| 4 | a) | Foundation -Criteria for selection(5) | 5 |
|  | b) | Arch-Definition (2) List and sketches (3) | 5 |
|  | c) | Roof-List and sketch (5) | 5 |
| 5 | a) | Stone masonry-Types (2) Explanation with figure (7) | 9 |
|  | b) | DPC-Definition (2) Different methods of providing DPC with fig (4) | 6 |
| 6 | a) | a)Filler Slab with fig(4), b)Rat trap bond with fig (4) | 8 |
|  | b) | Floorings-List types (2) criteria for selection (2) Timber floor construction withfig(3) | 7 |
| **PART C** |
| **Answer any two full questions. Each question carries 20 marks** |
| 7 | a) | Tall buildings advantages (3), Disadvantages (3) | 6 |
|  | b) | Modes of Vertical Transportation(4)Components of elevator with sketch (5) | 9 |
|  | c) | Types of failure of buildings (2) Reasons for collapse (3) | 5 |
| 8 | a) | RCC framed buildings (3), Steel framed buildings(3) | 6 |
|  | b) | List of types of stairs with sketches (6) | 6 |
|  | c) | Causes of failures of RCC structures with fig (8) | 8 |
| 9 | a) | Advantages of precast structures(6) | 6 |
|  | b) | Different methods of retrofitting of RCC beams (8) | 8 |
|  | c) | Causes of foundation failure(6) |

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