**20CE204**

**Hall Ticket Number:**

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| **I/IV B.Tech (Regular\Supplementary) DEGREE EXAMINATION** | | | |
| **August, 2023** | **Civil Engineering** | | |
| **Second Semester** | **Building Materials, Planning and Construction** | | |
| **Time:** Three Hours | | **Maximum:** 70 Marks | |
| ***Answer question 1 compulsory.*** | | | **(14X1 = 14Marks)** |
| ***Answer one question from each unit.*** | | | **(4X14=56 Marks)** |
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|  |  |  | CO | BL | M |
| 1 | a) | Define Durability. | CO1 | L1 | 1M |
|  | b) | What is the standard dimension of a brick? | CO1 | L1 | 1M |
|  | c) | Write any two applications of lime stone. | CO1 | L3 | 1M |
|  | d) | Define Fat Lime. | CO1 | L1 | 1M |
|  | e) | Draw the figure for Flemish bond. | CO2 | L1 | 1M |
|  | f) | What is a cavity wall? | CO2 | L2 | 1M |
|  | g) | What is mosaic flooring? | CO2 | L2 | 1M |
|  | h) | Draw king post truss. | CO2 | L1 | 1M |
|  | i) | Define riser and thread in staircase. | CO3 | L1 | 1M |
|  | j) | List any three damp proofing materials. | CO3 | L1 | 1M |
|  | k) | Define scaffolding. | CO3 | L1 | 1M |
|  | l) | Define plinth area.. | CO4 | L1 | 1M |
|  | m) | What is carpet area? | CO4 | L2 | 1M |
|  | n) | Define ventilation. | CO4 | L1 | 1M |
| **Unit-I** | | | | | |
| 2 | a) | Describe the qualities required in a good building stone and explain how they contribute to its suitability for construction. | CO1 | L2 | 7M |
|  | b) | Explain the macro structure of tree with a neat sketch. | CO1 | L2 | 7M |
|  |  | **(OR)** |  |  |  |
| 3 | a) | Differentiate between Fat Lime and Hydraulic Lime. | CO1 | L4 | 7M |
|  | b) | Identify and explain the harmful ingredients that can be present in brick earth and discuss their effects on the quality of bricks. | CO1 | L2 | 7M |
| **Unit-II** | | | | | |
| 4 | a) | What is Brick Masonry? Explain various classifications of Brick Masonry. | CO2 | L2 | 7M |
|  | b) | Explain in detail about the types of walls. | CO2 | L2 | 7M |
| **(OR)** | | | | | |
| 5 | a) | Draw a neat sketch of staircase and explain its components. | CO2 | L2 | 7M |
|  | b) | Differentiate between king post and queen post trusses. | CO2 | L4 | 7M |
| **Unit-III** | | | | | |
| 6 | a) | Classify various types of staircase with neat sketches. | CO3 | L2 | 7M |
|  | b) | Explain any two types of floorings with its advantages. | CO3 | L2 | 7M |
| **(OR)** | | | | | |
| 7 | a) | What is dampness? Explain the causes and effects of dampness in a building. | CO3 | L2 | 7M |
|  | b) | Define scaffolding. Explain various classifications of scaffolding. | CO3 | L2 | 7M |
| **Unit-IV** | | | | | |
| 8 |  | Explain the following  (i) Aspect (ii) Prospect (iii) Ventilation (iv) Roominess (v) Furniture requirement (vi) Sanitation | CO4 | L2 | 14M |
| **(OR)** | | | | | |
| 9 | a) | Write about conventional signs for building planning. | CO4 | L2 | 7M |
|  | b) | Provide guidelines for staircase planning, including factors such as dimensions, headroom, tread-to-riser ratio, and safety considerations. | CO4 | L2 | 7M |

