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**D.Y. PATIL COLLEGE OF ENGINEERING & TECHNOLOGY**

**KASABA BAWADA KOLHAPUR - 416006**

**Set-: I**

**Q. Paper Code: 22SYCE2013205**

**(An Autonomous Institute)**

S. Y. B. Tech

**END SEMESTER EXAMINATION, Dec. – 2022**

**Model Answer**

Course Name: Building Construction and Materials, Course Code: 201CEL205

Seat No:

**Day and Date: …….day, …/…/2022**

**Time: 2hr. 30min. Max. Marks- 50**

***Instructions:***

1. *Question No. 1&2 is compulsory.*
2. *Figure to the right indicate full marks.*
3. *Solve only* ***Q.2*** *onto* ***drawing sheet*** *to the appropriate scale.*
4. *Draw neat sketches supporting your answers.*

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| **BT** | **CO’s** | **Q. No.** |  | **Marks** |
|  |  | **Q.1** | **All Questions are compulsory** | **20 M** |
| **3** | **CO1** | **a** | Draw plan and sectional elevation of an Isolated column footing with RCC details.  (Plan **2m**; Sectional elevation **2m**; Reinforcement **2m)** | 6M |
| **1** | **CO2** | **b** | Write a short note on Queen post roof truss  (Truss details **4m**; Sketch with proper labels **3m)** | 7 M |
| **3** | **CO3** | **c** | Enlist the types of Lintels. Briefly explain any three types.  (Types of lintel **1m**; 3 types explained briefly **2m each)** | 7 M |
|  | | | | |
|  |  | **Q.2** | **Question is compulsory** | **15 M** |
| **4** | **CO4** |  | Design a RCC Dog legged staircase for residential building in which a distance between floors is 3m and a stair hall measures 2.2m X 4.5m internally. Draw plan and sectional elevation with scale 1:25.  Assume suitable data wherever necessary.  (Design steps **5m**; plan **4m**; sectional elevation **6m)**  **OR**  Design and draw plan and section of RCC open well staircase for residential apartment using the following data:  Floor height = 3.2m; Stair width = 1.2m; Staircase size = 4.2m X 3.6m  Scale 1:25. Assume suitable data wherever necessary.  (Design steps **5m**; plan **4m**; sectional elevation **6m)** | 15M  15M |
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|  |  | **Q.3** | **All questions are compulsory** | **7 M** |
| **2** | **CO3** | **a** | Explain the defects in plastering.  (List of defects **1m**; **3** defects in detail **2m each)** | 7M |
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|  |  | **Q.4** | **All questions are compulsory** | **8 M** |
| **1** | **CO3** | **a** | What are the functional requirements of ventilation system?  (Any **4** requirements **1m each)** | 4M |
| **1** | **CO3** | **b** | What are the constructional measures of noise control?  **(4** measures **1m each)** | 4M |

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