D.Y. PATIL COLLEGE OF ENGINEERING & ECHNOLOGY KASABA BAWADA KOLHAPUR-416006

**Set-: II**

**Q. Paper Code:22CE303503**

(An Autonomous Institute)

T. Y. B. Tech

END SEMESTER EXAMINATION(ESE), DEC. – 2022

Course Name: Highway and Traffic Engineering Course Code: 201CEL303

Day and Date: Saturday, 10/12/2022

Seat No:

Time: 2.00 pm to 4.00 pm Max. Marks- 50

***Instructions:***

1. *All QuestionS are compulsory.*
2. *Figure to the right indicate full marks.*

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| **BT** | **CO’s** | **Q.No.** |  | | **Marks** | **Weightage** |
|  |  | 1 | **All Questions are compulsory** | | **20** | **40%** |
| **3** | **CO1** | **a** | Explain in detail the classification of roads | Unit: 1,2,3 | **6M** |
| **3** | **CO1** | **b** | Write a note on bituminous mix design | **7 M** |
| 3 | **CO2** | c | Design the superelevation as per IRC for a national highway having design speed of 95 kmph & curve radius 300 m. | **7 M** |
|  | | | | | |  |
|  |  | 2 | **All Questions are compulsory** | | **10** | **60%** |
| **3** | **CO2** | **A** | What are the functions of rigid pavement joints?  Explain with neat sketch expansion joint. | Unit: 4 | **4** |
| **3** | **CO2** | **b** | Explain in detail design procedure of rigid pavement by IRC:58-2002  OR  Write detailed note on design of flexible pavement by using IRC method | **6** |
|  | | | | | |
|  |  | 3 | **All Questions are compulsory** | | **10** |
| **2** | **CO3** | **a** | Write a note on construction of WBM roads | Unit: 5 | **3** |
| **2** | **CO3** | **b** | Explain construction of sub-base and subgrade | **7** |
|  | | | | | |
|  |  | 4 | **Attempt any two out of three questions** | | **10** |
| **2** | **CO4** | **a** | Enlist the various traffic studies. Explain any one. | Unit: 6 | **5** |
| **2** | **CO4** | **b** | State & Explain traffic control devices. | **5** |
| **3** | **CO4** | **c** | Explain traffic characteristics in detail. | **5** |

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