Reg.No. \_\_\_\_\_\_\_\_\_\_\_\_\_



**End Semester Examination – Nov / Dec – 2019**

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| **Code :** | **14CE2014** | **Duration :** | **3hrs** |
| **Sub. Name :** | **TRANSPORTATION ENGINEERING** | **Max. Marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

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| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. | a. | Briefly outline the highway development in India and write any two practical examples. | CO1 | 10 |
| b. | Discuss briefly the objectives of highway planning. | CO2 | 10 |
| **(OR)** | | | | |
| 2. | a. | List the salient features of Jayakar Committee report. | CO1 | 10 |
| b. | Discuss the factors to be considered in deciding the sight distance at intersection. | CO3 | 10 |
|  |  |  |  |  |
| 3. | a. | Compose the objectives of highway geometric design. | CO1 | 10 |
| b. | Explain the relationship between speed, travel, time, volume, density and capacity. | CO2 | 10 |
| **(OR)** | | | | |
| 4. | a. | Classify the roads by Nagpur road plan. | CO1 | 10 |
| b. | Explain the necessity of highway planning. | CO2 | 10 |
|  |  |  |  |  |
| 5. | a. | Differentiate between traffic signal and marking. | CO3 | 10 |
| b. | List the limitations of CBR test. | CO2 | 10 |
| **(OR)** | | | | |
| 6. | a. | Explain obligatory points with sketches. Discuss how these controls the alignment. | CO2 | 10 |
| b. | Explain the CBR method of pavement design. | CO3 | 10 |
|  |  |  |  |  |
| 7. | a. | Explain briefly the separated intersections. Discuss the advantages and limitations. | CO2 | 10 |
| b. | Enumerate the various design factors controlling the vertical alignment of highways. | CO3 | 10 |
| **(OR)** | | | | |
| 8. | a. | Enumerate the factors governing the width of carriage way. | CO2 | 10 |
| b. | Discuss the effects of right of way. | CO1 | 5 |
| c. | Describe the various considerations in deciding the ruling gradient of Highway. | CO2 | 5 |
|  | | **Compulsory:** |  |  |
| 9. | a. | Discuss on Indian road congress. | CO1 | 10 |
| b. | Lsit the factors required for overturning sight distance. | CO2 | 5 |
| c. | Summarize the factors affecting alignment. | CO2 | 5 |