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



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

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| **Code :** | **14CE2036** | **Duration :** | **3hrs** |
| **Sub. Name :** | **PREFABRICATED STRUCTURES** | **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. | Summarize the advantages and setbacks in prefabrication. | CO1 | 5 |
| b. | Discuss the concepts of production techniques of prefabricated components. | CO1 | 15 |
| **(OR)** | | | | |
| 2. | a. | Infer the need of prefabrication. | CO1 | 3 |
| b. | Describe the constraints of selection of materials for prefabrication. | CO1 | 5 |
| c. | Categorize the principles of prefabrication techniques with their applications. | CO1 | 12 |
|  |  |  |  |  |
| 3. | a. | Illustrate modular coordination and explain its significance. | CO2 | 8 |
| b. | Summarize the prefabricated components and materials used for prefabrication. | CO2 | 8 |
| c. | Explain disuniting of structure with its advantage and disadvantage. | CO2 | 4 |
| **(OR)** | | | | |
| 4. | a. | Analyze the transportation and erection techniques used in prefabrication. | CO2 | 14 |
| b. | List and compare the types of cranes and its features. | CO2 | 6 |
|  |  |  |  |  |
| 5. | a. | Apply the concepts of shear wall system to resist lateral loads for a typical commercial complex. | CO1 | 15 |
|  | b. | Explain the term standardization in prefabrication. | CO1 | 5 |
| **(OR)** | | | | |
| 6. | a. | Analyze the different types of precast construction systems. | CO1 | 15 |
| b. | Define expansion joint and its application. | CO1 | 5 |
|  |  |  |  |  |
| 7. |  | Examine the different types of connections used in prefabricated structures. | CO2 | 20 |
| **(OR)** | | | | |
| 8. | a. | Explain in detail the construction sequence of precast floor, beam and column with appropriate sketches. | CO2 | 15 |
| b. | List the accessories used for lifting the precast elements. | CO2 | 5 |
|  | | **Compulsory**: |  |  |
| 9. | a. | Interpret progressive collapse and recommend remedial measures to prevent the failure. | CO2 | 14 |
| b. | Highlight some examples for abnormal loads that occurs in structures. | CO1 | 6 |