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



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

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|  |  |  |  |
| **Code :** | **16CE2001** | **Duration :** | **3hrs** |
| **Sub. Name :** | **INTELLIGENT BUILDINGS** | **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. | Describe the major aspects of intelligent buildings. | CO1 | 10 |
| b. | Illustrate the different types of smart materials available for use in structures. | CO1 | 10 |
| **(OR)** | | | | |
| 2. | a. | Differentiate green building and intelligent building. | CO1 | 10 |
| b. | Present the features adopted in buildings to make it intelligent. | CO1 | 10 |
|  |  |  |  |  |
| 3. | a. | Explain the various classifications of air conditioning. | CO2 | 10 |
| b. | Define ventilations and explain different types of ventilations. | CO2 | 10 |
| **(OR)** | | | | |
| 4. | a. | Draw the layout of typical house wiring and explain any five electrical installations. | CO2 | 10 |
| b. | Summarize the design of modern lighting for home and office buildings. | CO2 | 10 |
|  |  |  |  |  |
| 5. | a. | Explain the fire management carried out in buildings in case of fire. | CO2 | 10 |
| b. | Discuss on fire alarms and fire extinguisher. | CO2 | 10 |
| **(OR)** | | | | |
| 6. | a. | Interpret the procedure involved in security system for buildings. | CO2 | 10 |
| b. | Describe the working of CCTV and its applications. | CO2 | 10 |
|  |  |  |  |  |
| 7. | a. | Show how structural health monitoring of structures does this function. | CO3 | 10 |
| b. | Explain the different types of intrusion detection using sensors. | CO3 | 10 |
| **(OR)** | | | | |
| 8. | a. | Discuss about microprocessor and its operation. | CO3 | 10 |
| b. | Enumerate the characteristics of satellite communication. | CO3 | 10 |
|  | | **Compulsory**: |  |  |
| 9. | a. | Indicate the advantages of fiber optic communication and its operation. | CO3 | 10 |
|  | b. | Explain how burglar alarm is used in safety of buildings. | CO3 | 10 |