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



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

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| **Code :** | **17CE2037** | **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. | Explain how intelligent building evolved and bring out the difference between intelligent and conventional building. | CO1 | 10 |
| b. | Enumerate on the term integrated building management systems. | CO2 | 10 |
| **(OR)** | | | | |
| 2. | a. | Define human comfort and explain the classification of air conditioning systems. | CO2 | 10 |
| b. | Illustrate the use of shape memory alloy in buildings and also explain its properties. | CO2 | 10 |
|  |  |  |  |  |
| 3. | a. | Describe different ways in which daylight can be harvested. | CO2 | 10 |
| b. | Explain the artificial lights used in buildings. | CO3 | 10 |
| **(OR)** | | | | |
| 4. | a. | Explain protective devices in electrical installations in buildings | CO4 | 10 |
| b. | Interpret the principle components of power distribution system from generating station to houses. | CO5 | 10 |
|  |  |  |  |  |
| 5. | a. | Explain the causes of fire and its effects. | CO3 | 10 |
| b. | Write notes on foam, hose reels hydrant, sprinklers. | CO5 | 10 |
| **(OR)** | | | | |
| 6. | a. | Discuss on various types of fire detection alarm system. | CO3 | 10 |
| b. | Describe fire management and life safety in buildings. |  | 10 |
|  |  |  |  |  |
| 7. | a. | Summarize on design of security system and safety control systems. | CO5 | 10 |
| b. | Explain digital analog CCTV system with neat sketch. | CO5 | 10 |
| **(OR)** | | | | |
| 8. | a. | Examine the need for security systems. | CO5 | 10 |
| b. | Classify and explain types of intrusion detection systems. | CO6 | 10 |
|  | | **Compulsory**: |  |  |
| 9. | a. | Write notes on building electronics. | CO6 | 10 |
| b. | Describe the components in satellite communications. | CO6 | 10 |