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



**UNIVERSITY**

(Karunya Institute of Technology & Sciences)

(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

**End Semester Examination – Nov/Dec– 2017**

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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. | Illustrate with examples how does the technology help to provide energy efficient and a superior environment? | CO3 | 4 |
| b. | Discuss how does integration and energy management affect the building automation systems ? | CO3 | 12 |
| c. | Explain the three dimensions of building intelligence. | CO1 | 4 |
| (OR) | | | | |
| 2. | a. | Explain the Green Building concept in detail. | CO3 | 10 |
| b. | Enumerate on the various definition of intelligent building. | CO3 | 10 |
|  |  |  |  |  |
| 3. | a. | Sketch the distribution system of a single phase supply. | CO1 | 5 |
|  | b. | Explain any one of the discharge lamp with a sketch. | CO3 | 10 |
|  | c. | Enumerate on modern lighting for offices and schools | CO3 | 5 |
| (OR) | | | | |
| 4. | a. | Explain the power transmission and distribution system with neat sketches. | CO3 | 12 |
|  | b. | Write notes on sidelighting and toplighting used for intelligent buildings. | CO3 | 8 |
|  |  |  |  |  |
| 5. | a. | List the various gases produced during fire. | CO1 | 4 |
|  | b. | Write an account of fire resistant construction. | CO3 | 12 |
|  | c. | State any eight safety regulations as per NBC used for fire. | CO1 | 4 |
| (OR) | | | | |
| 6. | a. | Explain automatic sprinkler in detail. | CO1 | 8 |
|  | b. | Enumerate the fire safety management in buildings. | CO3 | 12 |
|  |  |  |  |  |
| 7. | a. | Describe the design of a home video monitoring security system. | CO2 | 5 |
|  | b. | Identify the different cards used for access control systems. | CO2 | 5 |
|  | c. | Sketch and explain access control system. | CO2 | 10 |
| (OR) | | | | |
| 8. | a. | Assess the building security control system. | CO2 | 10 |
|  | b. | Explain the working of microprocessor. | CO2 | 10 |
|  | |  |  |  |
|  | | **Compulsory**: |  |  |
| 9. | a. | Explain the various telephone systems? | CO3 | 10 |
|  | b. | Discuss the various uses of satellite communication. | CO3 | 10 |

ALL THE BEST