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



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

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| **Code :** | **18EC3026** | **Duration :** | **3hrs** |
| **Sub. Name :** | **INTERNET OF THINGS** | **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. | Relate the evolution of smart cities to IoT revolution. | CO1 | 8 |
| b. | Differentiate between IPv4 and IPv6. Justify its part in IoT revolution. | CO1 | 8 |
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| 2. | a. | Illustrate the principles of EDGE /P2P computing with respect to IoT. | CO2 | 10 |
| b. | Write notes on Security and Privacy issues in fog computing. | CO2 | 6 |
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| 3. | a. | Explain the following protocols which supports IoT.   1. Zigbee 2. Wi-Fi 3. Bluetooth | CO2 | 10 |
| b. | Write notes on MQTT IoT. | CO2 | 6 |
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| 4. | a. | Differentiate between pooling and caching with respect to Edge Computing. | CO3 | 10 |
| b. | Draw the architecture for WAN and explain. | CO3 | 6 |
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| 5. | a. | Write the differences between LAN, PAN, WAN with examples. | CO3 | 8 |
| b. | Explain the LAN architecture with example. | CO3 | 8 |
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| 6. | a. | Elaborate on Raspberry Pi and its components. | CO4 | 10 |
| b. | Write notes on   1. Interfaces in Raspberry Pi 2. Using LINUX on Raspberry Pi | CO4 | 6 |
|  |  |  |  |  |
| 7. | a. | Give an overview of operating systems used in IoT environment. | CO5 | 8 |
| b. | Write brief notes on   1. RIOT OS 2. Mbed OS 3. Contiki OS | CO5 | 8 |
|  | | **COMPULSORY QUESTION (1 x 20 = 20 Marks)** |  |  |
| 8. | a. | Discuss about Smart Parking. | CO6 | 14 |
| b. | Discuss about Security and Legal considerations in IoT applications. | CO6 | 6 |