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



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

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|  |  |  |  |
| **Code :** | **17CS3077** | **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. | Discuss the different types of Actuators in Internet of Things with suitable example. | CO1 | 12 |
| b. | Describe the IP address and MAC address with its context of usage. | CO1 | 8 |
| **(OR)** | | | | |
| 2. |  | Explain about any ten protocols used in Internet of Things. | CO1 | 20 |
|  |  |  |  |  |
| 3. | a. | Discuss the importance of sketching and familiarity in prototyping principles. | CO1 | 12 |
| b. | Write briefly the Cost versus Ease of Prototyping. | CO1 | 8 |
| **(OR)** | | | | |
| 4. |  | Differentiate between open source software and closed source software along with its price policy, security, quality of support, source code availability and its usability. | CO1 | 20 |
|  |  |  |  |  |
| 5. |  | Explain the operating system, cases and extension boards, programming language, debugging and openness of Raspberry Pi embedded device. | CO1 | 20 |
| **(OR)** | | | | |
| 6. | a. | Justify the context of using sensors and actuators in IoT with suitable example. | CO2 | 8 |
| b. | Discuss on the different parameters used in choosing the right platform in the Internet of Things devices. | CO2 | 12 |
|  |  |  |  |  |
| 7. | a. | Describe the Business Model Canvas as a tool for generating and analysing models. | CO4 | 15 |
| b. | Discuss the different ways of funding an Internet of Things startup. | CO3 | 5 |
| **(OR)** | | | | |
| 8. |  | Discuss the importance of getting certification for a developed product and the different testings applied on the product during certification. | CO3 | 20 |
|  | | **Compulsory**: |  |  |
| 9. | a. | Discuss the challenges faced by Major Power Plants and design an IoT application to overcome the challenges faced by them. | CO5 | 15 |
| b. | Describe the components of smart city and how does IoT helps in smart cities. | CO6 | 5 |