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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
B. Tech III Year II Semester Examinations, August - 2022
FUNDAMENTALS OF INTERNET OF THINGS
(Common to EEE, CSE, IT)

Time: 3 Hours
Max.Marks:75

Answer any five questions
All questions carry equal marks
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1.a) What are the main challenges in Internet of Things (IoT)?
 b) What kind of information do Internet of Things (IoT) objects communicate? [8+7]

2.a) How might wireless communications have an effect on the development and implementation of the Internet of Things (IoT)? Explain.
 b) Explain the protocol used to link the devices in IoT. [8+7]

3.a) How data collection and analysis approaches differ in M2M and IOT?
 b) Define ETSI M2M domains and High-level capabilities. [8+7]

4.a) Explain about interfacing an LED and switch with Arduino.
 b) What is the difference between Sensors and Actuators? Explain with an example. [8+7]

5.a) Discuss in detail the use of embedded computing in the design of IoT Systems.
 b) Explain in detail the Raspberry Pi interfaces. [7+8]

6.a) What is the use of SPI and I2C interfaces on Raspberry pi?
 b) Describe how SDN can be used at various levels of IOT. [8+7]

7.a) Discuss the role of Data Analytics in Internet of Things (IoT).
 b) Explain about various components and business model patterns in the Internet of Things. [10+5]

8. Explain the following:
 a) Cloud Platform for IoT/M2M Applications/Services
 b) Cloud Service Models. [8+7]

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