

Code No: 156DR

R18

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech III Year II Semester Examinations, August/September - 2021

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**

- 1.a) Identify the link layer protocols in IoT.
b) Explain the functional blocks of IoT. [7+8]
- 2.a) Demonstrate request-response communication model.
b) Discuss IoT network technologies. [8+7]
- 3.a) Explain M2M system architecture.
b) Write the applications of M2M. [7+8]
- 4.a) How to integrate sensors and actuators with Arduino?
b) Give the anatomy of Arduino program. [7+8]
- 5.a) Explain the control structure in Python.
b) Write Python program to control LED on Raspberry Pi. [7+8]
- 6.a) List and explain popular commands used in Raspberry Pi.
b) Steps to interface Raspberry Pi with a sensor. [7+8]
- 7.a) Explain key elements of SDN.
b) Describe the steps for data acquiring in IoT implementation. [7+8]
- 8.a) Explain the different services of Cloud computing.
b) Give the requirements and devices for interconnected transport system. [7+8]

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