

R18

Code No:154CP

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B.Tech II Year II Semester Examinations, August/September - 2022

SENSORS AND DEVICES

(Computer Science and Engineering (Internet of Things))

Time: 3 Hours

Max.Marks:75

**Answer any five questions
All questions carry equal marks**

- 1.a) Explain the physical and logical design of IoT in detail.
- b) Summarize the various IoT enabled technologies. [7+8]
2. Discuss the following in detail with respect to IoT :
a) Sensors and Actuators b) Embedded system c) Cloud Computing. [5+5+5]
- 3.a) Describe how NFV can be used for virtualizing IoT device.
- b) Discuss Software Defined Network with neat diagram. [8+7]
- 4.a) Explain Simple Network Management Protocol (SNMP) in detail?
- b) Discuss about Network Configuration Protocol (NETCONF) in detail? [8+7]
- 5.a) Explain the concepts involved in Raspberry Pi.
- b) Discuss in detail about Arduino with neat sketch. [8+7]
- 6.a) Explain the characteristics of Python programming language.
- b) Discuss the uses of SPI and I2C interfaces on raspberry pi. [8+7]
- 7.a) Explain the working of unipolar and bipolar Stepper motors.
- b) Discuss about Wireless Bluetooth Sensors with neat block diagrams. [7+8]
- 8.a) Explain Various Cloud Storage models.
- b) Discuss about Python Web Application Framework. [8+7]

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