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C022632(022)

B. Tech. (Sixth Semester) Examination, April-May 2022

(AICTE Scheme)

(CSE Engg. Branch)

INTERNET of THINGS

Time Allowed : Three hours

Maximum Marks : 100

Minimum Pass Marks : 35

*Note : All units are compulsory. Attempt any **two** questions from each unit.*

Unit-I

1. (a) Discuss the application areas and Challenges of IoT. 10

   (b) Define M2M Transmission and how it is different from IoT transmission.   10

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(c) How Could Computing and Big data helps ~~IoT~~ IOT Systems? Explain. 10

Unit-II

2. (a) Draw the architecture of Bluetooth and explain its use in IoT. 10

(b) Explain IEEE 802·15·4 and Zigbee protocols with proper diagram. 10

(c) Draw the IPV4 and IPV6 headers and compare IPV4 and IPV6 Protocols with suitable examples. 10

Unit-III

3. (a) Differentiate the working principles of IR sensor and PIR Motion Sensors with proper diagram. 10

(b) What are the different applications of actuators in IoT? Differential a thermal actuator with soft actuators. 10

(c) Explain different types of DC motors in brief which are mostly used in IoT systems. 10

Unit-IV

[3]

4. (a) Explain different components of a Raspberry Pi board. 10

(b) Write a pseudo code to run a stepper motor in 18 degree connceted to an arduion board. 10

(c) Explain the working of Node MCU ESP 8266 board and how it is different from other arduino board. 10

Unit-V

5. (a) Discuss the properties and characteristics of cloud computing models. 10

(b) Explain Software as a Service (SaaS) and Platform as a service (PaaS) models of cluld Computing 10

(c) Give a brief description on evolution and recent trends of cloud computing. 10