

Roll No.

Total Pages : 2

BT-8/M-20

38197

INTRODUCTION TO INTERNET OF THINGS

Paper–IT-420-N

Time Allowed : 3 Hours]

[Maximum Marks : 75

Note : Attempt five questions in all, selecting at least one question from each Unit. All questions carry equal marks.

UNIT–I

1. (a) Define Internet of Things. What are the major components of IoT system? Explain in detail. 8
- (b) What are the functional blocks of IoT? Discuss the significance of each block. 7
2. (a) Draw and discuss 4 layer reference architectural model of IoT given by ITUT. Explain working of each layer. 8
- (b) Discuss the architecture of M2M system. What are the security issues in M2M? 7

UNIT–II

3. (a) What are the merits of Arduino boards for designing IoT application services? Compare it with Raspberry pi board. 8

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- (b) Compare NFC, RFID and Bluetooth communication protocols which can be used for device communication in IoT. 7
4. (a) Describe Data management in IoT? Write down the functions of Data management. 8
- (b) What are various security and privacy issues in IoT system? How these issues can be resolved? 7

UNIT-III

5. (a) Explain the functional view of IoT reference architecture. 7
- (b) Describe Bluetooth low energy protocol used in IoT. 8
6. Explain ZigBee protocol in detail. 15

UNIT-IV

7. Explain design steps in maintaining monitoring process of Retail. Draw the architectural reference model. 15
8. Discuss the application of IoT in Agriculture monitoring. Explain the various steps. 15