CBCS SCHEME

USN | | | | | | | | | | |

15CS81

Eighth Semester B.E. Degree Examination, June/July 2019
Internet of Things Technology

Time: 3 hrs. Max. Marks: 80

Note: ***Answer FIVE full questions, choosing one full question from each module.***

Module-1

1 a. What is IOT? Explain in detail on Genesis of IOT. **(08 Marks)**
b. What does IOT and digitaization mean? Elaborate on this concept. **(04 Marks)**
c. Write a short note on "IOT impact in Real World". **(04 Marks)**

OR

2 a. Discuss IOT challenges. **(08 Marks)**
b. With a neat diagram, explain architecture of IOT. **(04 Marks)**
c. Explain Core IOT functional stack. **(04 Marks)**

Module-2

3 a. List and explain different types of sensors. **(08 Marks)**
b. Elaborate on small physical objects and small virtual objects. **(04 Marks)**
c. Explain "IOT Access Technologies". **(04 Marks)**

OR

4 a. Briefly explain protocol stack utilization IEEE 802.15.4. **(08 Marks)**
b. What is SANET? Explain some advantages and disadvantages that a wireless based solution offers. **(08 Marks)**

Module-3

5 a. Explain working of IP as the IOT network layer. **(08 Marks)**
b. Write note on Busines case for IP. **(04 Marks)**
c. Discuss need for optimization. **(04 Marks)**

OR

6 a. Describe application protocols for IOT. **(08 Marks)**
b. Discuss the various methods used in IOT application transport. **(08 Marks)**

Module-4

7 a. What do you mean by data and analytics for IOT? Explain. **(04 Marks)**
b. Discuss Bigdata analyties tools and technology. **(04 Marks)**
c. With a case study relate the concept of securing IOT. **(08 Marks)**

OR

8 a. Explain in detail how IT and OT security practices and systems vary in real time. **(08 Marks)**
b. Discuss OCTAVE and FAIR formal risk analysis. **(08 Marks)**

Module-5

9 a. Give a brief note on Arduino UNO. **(04 Marks)**

b. With a neat diagram, explain Raspberry P_i board. **(04 Marks)**

c. With a neat diagram, explain wireless temperature monitoring system using Raspberry P_i. **(08 Marks)**

OR

10 a. Explain in detail smart city IOT architecture. **(08 Marks)**

b. With the case study explain smart and connected cities using Raspberry Pi. **(08 Marks)**

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