



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 digitalization 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 Business 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 analytics 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 Pi board. (04 Marks)
c. With a neat diagram, explain wireless temperature monitoring system using Raspberry Pi. (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)

* * * *