



B.Tech VII Semester Regular/Supplementary Examinations, November 2022

INTERNET OF THINGS

(Professional Elective)
(Information Technology)

Maximum Marks: 70

Date:01.12.2022 Duration: 3 hours

- Note:
- 1.This question paper contains two parts A and B.
 2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
 3. Part B consists of 5 Units. Answer any one full question from each unit which carries 10M.
 4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks

(10x2M=20 Marks)

- 1 What is a "Thing" in the context of the Internet of Things?
- 2 Give few examples of the impact of Internet of Things (IoT) on agriculture
- 3 What are the advantageous of network function virtualization?
- 4 What are the three layers of software defined network?
- 5 What are the uses of file object?
- 6 What operators does python support?
- 7 What are three types of interface supported by Raspberry PI?
- 8 What accessories do you need for Raspberry PI?
- 9 Why is REST stateless?
- 10 List the web frame works in python.

Part-B

Answer All the following questions.

(5X10M=50Marks)

- 11 A. Analyze the physical design of IoT 5M
B. List the various technologies that are used in enabling the IoT devices 5M
- OR
- 12 A. What is wireless sensor network? Discuss the benefits and limitations of wireless sensor networks 5M
B. Describe about domain specific IoTs for home automation and smart cities. 5M
- 13 A. With regards to various aspects, such as applications, business, and technology, compare the main characteristics of M2M and IoT 5M
B. What limitations make SNMP unsuitable for IoT systems? Explain. 5M
- OR
- 14 A. Analyze the role of various components of NETCONF-YANG and steps for IoT device management with NETCONF-YANG. 5M
B. Interpret different components of SDN architecture 5

- 15 A. Discuss control statements in python with examples 5M
B. How to declare and call functions in python programs? Illustrate with an example script 5M
- OR
- 16 A. How does try-except statement work? Demonstrate with an example Python code. 5M
B. Discuss in detail about various data types in python. 5M
- 17 A. Explain the procedure to build IOT with RaspBerry Pi. What are the physical devices and end points 5M
B. With a neat diagram implement wireless temperature monitoring system IoT applications using Raspberry Pi? 5M
- OR
- 18 A. Write a Python program for blinking an LED for every second on Raspberry Pi 5M
B. List out all the components and peripherals of Raspberry Pi board 5M
- 19 A. Discuss the advantageous and disadvantageous of cloud storage 5M
B. Explain the different types of web servers 5M
- OR
- 20 A. List the features of REST architectural style of designing software companies. 5M
B. Explain the purpose of Python Web Application Framework – Django and Amazon Web service for IoT. 5M