



Regulation: R20

Subject code:3E7EL

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A+' Grade)

B.Tech VII Semester Supplementary Examinations, April 2024

INTERNET of THINGS
(COMPUTER SCIENCE & ENGINEERING)

Maximum Marks: 70

Date: 23.04.2024 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. Total 10 questions it consists.
 4. Part-B 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 Define IOT.
- 2 What is a smart home?
- 3 What is the importance of the Internet of Things?
- 4 What are the elements of Home Automation System?
- 5 What is ZigBee?
- 6 What is the difference between M2M and IoT?
- 7 Define Arduino
- 8 Define Micro Python
- 9 Write a short note on Light Dependent Resistor.?
- 10 What is the use of GPIO pins in a IoT device?

Part-B

Answer All the following questions.

(5X10M=50Marks)

- 11 a) With the help of neat diagrams, describe the levels of IOT with an example each.
b) Describe various functional blocks of IOT. [5+5]

OR

- 12 a) What are the protocols associated with IoT? Explain them in detail.
b) Mention the applications of IoT. [5+5]

- 13 a) Explain the request Response communication model of IOT With a neat sketch?
b) Compare the protocols associated with Transport layer of IOT? [5+5]

OR

- 14 Explain NETCONF and YANG. [10]

- 15 Describe how NFV can be used for virtualizing IoT device. [10]

OR

- 16 Describe how SDN can be used for various levels of IoT. [10]

- 17 Discuss in detail about Arduino with neat sketch. [10]

OR

18 What is the use of SPI and I2C interfaces on raspberry pi? [10]

19 a) Design a weather monitoring IoT system using REST based?

b) Explain the purpose of smart parking in cities? [5+5]

OR

20 a) What is the Difference between a Xively data stream and a channel?

b) Describe the architecture of Amazon Web Service Ffor Iot? [5+5]