Code No: 157CD **R18**

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year I Semester Examinations, July/August - 2023

INTERNET OF THINGS

(Computer Science and Engineering)

Time: 3 Hours **Max.Marks:75**

Note: i) Question paper consists of Part A, Part B.

ii) Part A is compulsory, which carries 25 marks. In Part A, Answer all questions.

iii) In Part B, Answer any one question from each unit. Each question carries 10 marks and may have a, b as sub questions.

PART – A

(25 Marks)

1.a)	What do you mean by WSN?	[2]
b)	What is the role of internet in IoT?	[3]
c)	List out the key elements of NFV architecture.	[2]
d)	Define Software Defined Network.	[3]
e)	What is the difference between compiled and interpreted languages?	[2]
f)	What are Python assignment operators?	[3]
g)	How to run Raspberry pi in headless mode?	[2]
h)	List any 3 features of Raspberry pi.	[3]
i)	Write the examples of RESTful API.	[2]
j)	What are IoT physical servers?	[3]

PART – B

(50 Marks)

2.a) With the help of neat diagrams, describe the levels of IoT with an example each.

b) Discuss smart health using IoT. [5+5]

OR

3.a) Explain how cloud computing is playing key role in IoT.

b) Discuss in detail Smart City application of IoT. [5+5]

4.a) List and explain the steps involved in IoT device Management with NETCONF-YANG.

b) Compare and contrast between software defined networking and network function virtualization. [5+5]

OR

5.a) Explain the various differences between M2M and IoT.

b) Discuss in detail about IoT System Management with NETOPEER. [5+5]

6.a) What are the different loop control statements available in Python? Explain with suitable examples.

b) Explain the Python Dictionary Comprehension with examples. [5+5]

OR

7.a) List and explain few most commonly used built-in types in python.

b) How to handle an exception using try except block? Explain with the help of a program. [5+5]

8.a) With the help of neat diagram, explain the basic building blocks of IoT device.
b) Justify how Raspberry Pi is different from a desktop computer. [5+5]

OR

9.a) What is the use of SPI and I2C interfaces on raspberry pi? Explain.
b) Illustrate how to interface a LED to raspberry pi and write a program to blink. [5+5]

10. Write in detailed note on Web server for IoT. [10]

OR

11. Describe different types of cloud storage models in detail. [10]

---ooOoo---