



# MARRI LAXMAN REDDY INSTITUTE OF TECHNOLOGY AND MANAGEMENT

(AN AUTONOMOUS INSTITUTION)

(Approved by AICTE, New Delhi & Affiliated to JNTUH, Hyderabad)

Accredited by NBA and NAAC with 'A' Grade & Recognized Under Section 2(f) & 12(B) of the UGC act, 1956

III B.Tech II Sem Regular End Examination, June 2022

## Internet of Things (Information Technology)

Time: 3 Hours.

Max. Marks: 70

Note: 1. Question paper consists: Part-A and Part-B.

2. In Part - A, answer all questions which carries 20 marks.

3. 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

(10\*2 Marks = 20 Marks)

- |       |   |    |     |     |
|-------|---|----|-----|-----|
| 1. a) | Define sensor networks.                         | 2M | CO1 | BL1 |
| b)    | Define Industry and Agriculture impact in IOT.  | 2M | CO1 | BL1 |
| c)    | Outline the differences between IOT and M2M.    | 2M | CO2 | BL2 |
| d)    | Demonstrate YANG.                               | 2M | CO2 | BL2 |
| e)    | Compare time and data operations in python.     | 2M | CO3 | BL2 |
| f)    | Analyze different python classes.               | 2M | CO3 | BL4 |
| g)    | Determine Raspberry PI-Interface (SPI).         | 2M | CO4 | BL3 |
| h)    | Discuss IOT physical devices.                   | 2M | CO4 | BL2 |
| i)    | Design a Restful web API.                       | 2M | CO5 | BL6 |
| j)    | What is the importance of cloud storage models? | 2M | CO5 | BL1 |

### PART- B

(10\*5 Marks = 50 Marks)

- |      |   |    |     |     |
|------|---|----|-----|-----|
| 2 a) | Interpret the impact and challenges of IOT.   | 5M | CO1 | BL2 |
| b)   | Compare cloud computing and big data analysis | 5M | CO1 | BL2 |

OR

- |   |   |     |     |     |
|---|---|-----|-----|-----|
| 3 | What are the different communication protocols and list the IOT levels. | 10M | CO1 | BL1 |
|---|---|-----|-----|-----|

- |      |   |    |     |     |
|------|---|----|-----|-----|
| 4 a) | Identify the difference between SDN and NFV.    | 5M | CO2 | BL3 |
| b)   | Examine the NETCOZF work with system management | 5M | CO2 | BL4 |

OR

- |   |  |     |     |     |
|---|--|-----|-----|-----|
| 5 | Evaluate network function virtualization and SNMP. | 10M | CO2 | BL5 |
|---|--|-----|-----|-----|

- 6 a) Appraise the features of python language and JSON. 5M C03 BL5  
b) Develop an example of PANDAS module using python 5M C03 BL6
- OR**
- 7 Explain exception handling with an example. 10M C03 BL4
- 8 a) Create a python program with raspberry PI. 5M C04 BL6  
b) Judge on serial and 12c interfaces. 5M C04 BL5
- OR**
- 9 Elaborate the external gadgets and controlling of any IOT system. 10M C04 BL5
- 10 a) Categorize IOT physical sensors. 5M C05 BL4  
b) Illustrate communication API'S web server. 5M C05 BL2
- OR**
- 11 Formulate python web application framework and design a web with API. 10M C05 BL3

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