Code No: 824AX

| **R15** |

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
MCA V Semester Examinations, June/July - 2018
INTERNET OF THINGS

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

Note: This question paper contains two parts A and B.
Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART - A

5 × 5 Marks = 25

1.a)   What are the IoT communication APIs? Explain.   [5]
  b)   Explain the need for IoT systems management.   [5]
  c)   What is the motivation for using Python? Explain.   [5]
  d)   What is an IoT Device? Explain about Beagle Bone Black.   [5]
  e)   List some of the web servers for IoT and brief them.   [5]

PART - B

5 ×10 Marks = 50

2.   Explain in detail about the protocols used in the physical design of Internet of Things.
                                                                                        [10]

OR

3.   With a neat diagram, explain various IoT levels and deployment templates.   [10]

4.   What is the purpose and characteristics of M2M? Explain the differences between IoT and M2M.   [10]

OR

5.   What is Software Defined Networking (SDN) and network function virtualization (NFV)? Explain the differences between SDN and NFV for IoT.   [10]

6.a)   Write about file handling in Python.
  b)   How type conversion is done in Python? Explain.   [5+5]

OR

7.   List and explain the Python packages of interest for IoT.   [10]

8.   Write a detailed note on Raspberry Pi board and using Linux on Raspberry Pi.   [10]

OR

9.   What are the design issues in interfacing an LED and Switch with Raspberry Pi? Explain.   [10]

10.   Discuss the architecture of Django and the issues in starting development with Django.
                                                                                        [10]

OR

11.   Write short notes on a) WAMP - AutoBahn for IoT   b) Xively Cloud for IoT.   [5+5]

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