Code No: 156FE **R18**

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
B. Tech III Year II Semester Examinations, March - 2024
IOT COMMUNICATION PROTOCOLS
(Computer Science and Engineering - IOT)

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 is polymorphic data? Explain.	[2]
b)	Explain about analytics architecture in detail.	[3]
c)	What is hop-by-hop communication?	[2]
d)	Discuss about Information exchange patterns.	[3]
e)	What is ZigBee pro?	[2]
f)	Explain about Long Term Evolution.	[3]
g)	What is ICMP protocol?	[2]
h)	Explain about IPv6 in detail.	[3]
i)	What is TCP?	[2]
j)	Distinguish between TLS and DLTS.	[3]

PART – B

(50 Marks)

2.a) What are considerations for M2M data? Explain.
b) Describe Internet Engineering Task Force architecture fragments. [5+5]

OR

3.a) Explain about IoT integration with enterprise systems in detail.
b) Discuss about ETSI M2M service capabilities. [5+5]

4.a) Describe deployment and operational views with example.
b) Explain about functional and nonfunctional requirements of an IoT device. [5+5]

OR

5.a) Discuss about the flow of information in an IoT system.
b) Describe the information flow when the Virtual Entity Service Resolution FC is utilized. [5+5]

6.a) Discuss about Z-Wave protocol in detail.
b) What are Zigbee Smart Energy features? Explain. [5+5]

OR

7.a) Discuss about the IEEE 802.15.4 MAC layer.
b) Explain about LTE-eMTC downlink layers in detail. [5+5]

8. Explain about DHCP architecture and client functionality in detail. [10]

OR

9.a) Describe RPL security levels and attacks.

b) Explain in detail about 6TiSCH. [5+5]

10. Explain the following protocols:

a) SCTP

b) HTTP. [5+5]

OR

11. Explain the following protocols:

a) MPTCP

b) AMQP. [5+5]

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