

[4]

SECTION 'C'
(Long Answer Type Questions)

12 × 5 = 60

Note : Answer the following questions in 500 words.

1. Explain device and gateways in M2M and IoT technology.

Or

What effect will the internet of things (IoT) have on our daily lives ? Explain with any one example of smart car parking.

2. What is IoT reference architecture ? Explain it with functional and information view.

Or

Explain data representation and visualization in IoT with example.

3. How CORPL differs from RPL ? Discuss CORPL with an IOT application.

Or

Discuss IPv4, IPv6 and 6LoWPAN and 6TiSCH protocol in Network layer with IoT scenario.

4. Briefly explain about Stream Control Transmission Protocol (SCTP) with its applications.

Or

Discuss the need of MQTT session layer protocol. How it works ? Also discuss its application.

5. What are the major Privacy and Security issues in case of Internet of Things (IoT) ?

Or

Discuss features of ETSI M2M high level architecture with diagram.

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G-3/329/21

Roll No.....

M.Sc. III Semester Examination, April-2021

INFORMATION TECHNOLOGY

Paper V

(Internet of Things)

Time : 3 Hours]

[Maximum Marks : 100

Note : All questions are compulsory. Question Paper comprises of 3 sections. **Section A** is objective type/Multiple Choice questions with no internal choice. **Section B** is short answer type with internal choice. **Section C** is long answer type with internal choice.

SECTION 'A'
(Objective Type Questions)

Choose the correct answer :

1 × 10 = 10

1. IoT is an advanced automation and analytics system which deals with :

(a) Sensor, Networking (b) Cloud messaging

(c) Electronic (d) All of the above

2. In which year, the term "Internet of things" was coined ?

(a) 1998 (b) 1999

(c) 2000 (d) 2001

3. MQTT isprotocol.

(a) Machine to Machine

(b) Internet of Things

(c) Machine to Machine and Internet of Things

(d) Machine Things

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4. Which one out of these is not a data link layer technology :

- (a) Bluetooth (b) UART
- (c) WiFi (d) HTTP

5. Version 6 of IP address has how many bits ?

- (a) 64 bits (b) 128 bits
- (c) 32 bits (d) 256 bits

6. What is the standard length of MAC address ?

- (a) 16 bits (b) 32 bits
- (c) 48 bits (d) 64 bits

7. CoAP is specialized in

- (a) Internet applications
- (b) Device applications
- (c) Wireless applications
- (d) Wired applications

8. Terms SSL and TLS stand for :

- (a) Secure Socket Layers and Transport Layer Session
- (b) Secure Socket Layers and Transport Layer Security
- (c) Secure Socket Layout and Transport Level Session
- (d) Session Socket Layers and Transport Layer Session

9. XMPP createsidentity.

- (a) device (b) email
- (c) message (d) data

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10. IoT devices are naturally vulnerable tothreats.

- (a) Sensors (b) Heterogeneity
- (c) Security (d) Connectivity

SECTION 'B'

6 × 5 = 30

(Short Answer Type Questions)

Note : Answer the following questions in 250 words.

1. Discuss Internet of Things (IoT) with example.

Or

Elaborate local and wide area networking in the context of IoT.

2. How deployment view work in IoT reference model ?

Or

Explain how network domain helps in establishing connection between the nodes in and IoT application.

3. Write short notes on Z-wave.

Or

How IEEE 802.15 is different from 802.11 ?

4. Discuss the important features of MPTCP.

Or

Explain basic operations available in XMPP.

5. What is a service layer in IoT ? Who accesses the service layer ?

Or

Write short notes on 6LoWPAN.