SET A

MASTER OF COMPUTER APPLICATION
FOURTH SEMESTER
INTERNET OF THINGS
MCA-403.3
[USE OMR SHEET FOR OBJECTIVE PART]

Duration: 3 hrs. **Full Marks: 70**

(Objective)

Time: 30 mins. **Marks: 20**

Choose the correct answer from the following: ***1×20=20***

1. Which of the following is the way in which an IoT device is associated with data?
   a. Internet b. Cloud
   c. Automata d. Network

2. An IoT network is a collection of..... devices.
   a. Signal b. Machine to Machine
   c. Interconnected d. Network to Network

3. What is the main purpose of WoT (Web of Things) in the IoT?
   a. Improve the usability and interoperability b. Reduce the security
   c. Complex the development d. Increase the cost

4. Which of the following layers provides end-to-end communication in IoT?
   a. Logical layer b. Data link layer
   c. Transport layer d. Session layer

5. Which of the following topology is used for ZigBee Smart Energy?
   a. Bus Topology b. Ring Topology
   c. Star Topology d. Any Topology

6. What is the standard form of RFID?
   a. Radio Frequency Identification b. Radio Waves Frequency Identification
   c. Radio Frequency InterDependent d. Radio Wave Frequency Independent

7. Which of the following things is mandatory for the IoT gateway to provide?
   a. Simple and secure installation b. Data network and storage
   c. Software Security d. Protocol abstraction

8. The relation between IoT and M2M is.....
   a. IoT is part of M2M b. M2M is the part of IoT
   c. Both are same d. None

9. M2M applications would use .....for storage and analysis.
   a. Cloud b. Local Machine
   c. Both d. None

10. What role of the cloud in smart grid architecture is?
    a. Manage data b. Collect data
    c. Secure data d. Store data

11. Identify the incorrect advantage of IoT.
    a. Reduce waste
    b. Enhanced data collection
    c. Improve customer engagement
    d. Security

12. Service is termed as ....., in SOA.
    a. Network service
    b. Software service
    c. Business service
    d. Developer Service

13. .....in the IoT Architecture is the hardware and software gateways that analyze and pre-process the data before transferring it to the cloud.
    a. Gateways
    b. Edge IT
    c. Data center
    d. Data acquisition

14. What happens when service providers change their operating system and communication protocols?
    a. Only complexity arises
    b. Inoperability and complexity arises
    c. Only inoperability arises
    d. Nothing arises

15. API architecture not only includes critical elements but also caters for.....
    a. System
    b. Devices
    c. Network
    d. Multi homing

16. Many IoT applications use....., where two independent factors are used to identify a user.
    a. Cross-site request forgery
    b. Cross-site scoring scripting
    c. Two-factor authentication
    d. Cross-site scripting

17. Which one is not the component of IoT Security Architecture?
    a. Secure Communication
    b. Secure Device
    c. Secure Lifecycle
    d. None of them

18. .....is the best product in the Arduino family for Beginners.
    a. Divide
    b. Uno
    c. Thrive
    d. None of the above

19. TX pin represents..... in Arduino board.
    a. Transmit
    b. Receive
    c. On
    d. Ground

20. What is the Arduino UNO?
    a. Software
    b. Hardware device
    c. Network
    d. Protocol

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(Descriptive)

Time : 2 hr. 30 mins. **Marks : 50**

[Answer question no.1 & any four (4) from the rest]

1.	Why we go for IoT? Explain the components of IoT in detail.	2+8=10
2.	a) Define P to P Networking. b) Explain various types of Network communication Protocols in details.	3+7=10
3.	a) Explain various Communication Models of IoT in detail. b) Illustrate the concept of IoT layer Protocol with suitable diagram.	5+5=10
4.	What are all the differences between M2M & IoT? Explain.	10
5.	a) Define the Value chain. b) Explain the concept of M2M value chain & IoT value chain.	5+5=10
6.	a) Illustrate the design principles and needed capabilities of IoT. b) Illustrate the concept of IoT data management and compute stack.	5+5=10
7.	a) Explain various IoT Architectural views in details. b) What are all the applications of IoT? Explain.	4+6=10
8.	a) Draw the IoT reference Architecture and explain. b) Explain Arduino board and its various pins in details.	5+5=10

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