

**MASTER OF COMPUTER APPLICATION
THIRD SEMESTER
INTERNET OF THINGS
MCA-303.2**

[USE OMR FOR OBJECTIVE PART]

2024/11

**SET
A**

Duration: 3 hrs.

Full Marks: 70

Time: 30 min.

Marks: 20

1X20=20

(Objective)

Choose the correct answer from the following:

1. Full form of IOT
 - a. Internet of Things
 - b. Interest of thing
 - c. Internet on Things
 - d. Inter of things
2. A _____ converts a signal from one physical structure to another
 - a. transducer
 - b. MAC
 - c. Capacitor
 - d. IOT
3. _____ Can not independently sense the input
 - a. Active Sensor
 - b. Active device
 - c. Passive Sensor
 - d. Analog Sensor
4. A _____ uses hydraulic power to perform a mechanical operation
 - a. Active actuator
 - b. Suppressive actuator
 - c. passive actuator
 - d. hydraulic actuator
5. LPWAN stands for
 - a. Low Power Wide Area Networks
 - b. Low passage Wide Area Networks
 - c. Low Power world Area Networks
 - d. Low Power Wide Arena Networks
6. M2M stands for
 - a. Machine-to-Machine
 - b. More to more
 - c. Many to many
 - d. Many to more
7. AI Stands for
 - a. Artificial intelligence
 - b. Agronomic intelligence
 - c. Artificial intellect
 - d. Aeronomic intelligence
8. ML Stands for
 - a. machine learning
 - b. mechanical learning
 - c. machine lessoning
 - d. mechanic learning
9. HVAC stands for
 - a. Heating, Ventilation, and Air Conditioning
 - b. Heating, Vent, and Air Conditioning

- c. Heat, Ventilation, and Air Conditioning d. Heating, Ventilation, and Air Conditioning
10. _____ Ensure that IoT devices can communicate and work together across different platforms and manufacturers
 a. Interoperability b. Intension
 c. Internet d. Infrared
11. Design systems to handle increasing numbers of devices and data without significant performance degradation is _____
 a. Scalability b. Security
 c. Sociality d. Sanity
12. _____ Capture data from the physical environment
 a. Security b. Scalability
 c. Sensors d. Sociality
13. The _____ also known as the transport or device layer
 a. physical layer b. Session layer
 c. Data link layer d. network layer
14. At the _____, collected data is processed and analyzed to help businesses make decisions as well as streamline their operations
 a. delta processing layer b. data processing layer
 c. processing layer d. system processing layer
15. The _____ is a collection of service implementations, which interface the related and associated Resources
 a. IoT Service FC b. IoT FC
 c. IoT Service d. Internet Service FC
16. The _____ manages the descriptions and execution environment of complex services consisting of simpler dependent services
 a. Composition FC b. Service FC
 c. Service Composition FC d. Server Composition FC
17. The _____ manages the different identities of the involved Services or Users in an IoT system
 a. Identity Management FC b. Identity FC
 c. Management FC d. Identity Management
18. The _____ is used for setting up the necessary security keys between two communicating entities in an IoT system.
 a. Key & Management b. Key Exchange & Management
 c. Exchange d. Management

19. An open-source hardware and software platform for building IoT devices. Great for prototyping
- | | |
|------------|----------|
| a. Arduino | b. Artic |
| c. Arsenal | d. Allay |
20. A flow-based development tool for visual programming of IoT applications
- | | |
|-------------|---------------|
| a. Node-RED | b. New Red |
| c. Node | d. Node green |

-- -- --

(Descriptive)

Time : 2 hrs. 40 min.

Marks : 50

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

1. What is sensor and explain the types and characteristics of sensor. 10
2. Define actuation? Explain the types of actuators and explain its advantages and disadvantages. 2+8=10
3. Explain the vision introduction from M2M to IoT 10
4. Explain building architecture. 10
5. Explain getting familiar with IoT architecture. 10
6. Explain the various architectural view of IoT such as Functional, Information, Operational and Deployment. 10
7. Explain the different IoT tools and describe Arduino and Raspberry. 10
8. What is python and explain the use of Python in IoT. 10

== *** ==