

Total number of questions : 60

11678\_EMBEDDED SYSTEM AND INTERNET OF THINGS

Time : 1hr

Max Marks : 50

N.B

- 1) All questions are Multiple Choice Questions having single correct option.
  - 2) Attempt any 50 questions out of 60.
  - 3) Use of calculator is allowed.
  - 4) Each question carries 1 Mark.
  - 5) Specially abled students are allowed 20 minutes extra for examination.
  - 6) Do not use pencils to darken answer.
  - 7) Use only black/blue ball point pen to darken the appropriate circle.
  - 8) No change will be allowed once the answer is marked on OMR Sheet.
  - 9) Rough work shall not be done on OMR sheet or on question paper.
  - 10) Darken ONLY ONE CIRCLE for each answer.
- 

**Q.no 1. Which of the following is billing and account management service ?**

- A : Amazon Elastic MapReduce
- B : Amazon Mechanical Turk
- C : Amazon DevPay
- D : Multi-Factor Authentication

**Q.no 2. Which layer/layers of the OSI model does Web of Things (WoT) deals with ?**

- A : Application Layer
- B : Network Layer
- C : Transport Layer
- D : Every layer

**Q.no 3. IoT Level\_\_\_\_\_ systems has a single node/device that performs sensing and/ or actuation, stores data, performs analysis and hosts the application.**

A : Level 1

B : Level 2

C : Level 3

D : Level 4

**Q.no 4. In M2M/ IoT protocols the payload and header is very \_\_\_\_\_**

A : Small

B : Big

C : Same as Internet Protocol

D : Moderate

**Q.no 5. Which is true about model view controller architecture of Django**

A : It represents by a database

B : It is user interface that you see in browser

C : It connects view and model together

D : None of the above

**Q.no 6. Wi-Fi stands for?**

A : a) Wireless fidelity

B : b) Wireless Flexibility

C : c) Wide Fidelity

D : d) WAN Flexibility

**Q.no 7. What is the full form of SCADA?**

A : a) Supervisory Control and Document Acquisition

B : b) Supervisory Control and Data Acquisition

C : c) Supervisory Column and Data Assessment

D : d) Supervisory Column and Data Assessment

**Q.no 8. Which of the following is storage data interchange interface for stored data objects?**

A : OCC

B : OCCI

C : OCMI

D : All of the above

**Q.no 9. The process of converting data into a format that can not be read by another user**

A : Registering

B : Locking

C : Encryption

D : Keying

**Q.no 10. Which one is the Last step in IOT Platforms Design Methodology**

A : Application Development

B : Purpose and Requirement

C : Domain Model Specification

D : Service Specification

**Q.no 11. MQTT stands for**

A : MQ Telemetry Things

B : MQ Transport Telemetry

C : MQ Transport Things

D : MQ Telemetry Transport

**Q.no 12. Which is not a open-source SaaS (Software-as-a-Service) project?**

A : Ubuntu

B : Microsoft Office 365

C : openSIS

D : Zimbra

**Q.no 13. Information model adds more details to the Virtual Entities by defining their ----- and relations.**

A : Virtual

B : System Model

C : Attributes

D : Domain Model

**Q.no 14. What is the Ethernet/LAN cable used in RPi?**

A : a) Cat5

B : b) Cat5e

C : c) Cat6

D : d) RJ45

**Q.no 15. Unique ID for each device in skynet is \_\_\_\_\_**

A : SSID

B : UID

C : UUID

D : ID

**Q.no 16. Several instructions execution simultaneously in?**

A : a) processing

B : b) parallel processing

C : c) serial processing

D : d) multitasking

**Q.no 17. \_\_\_\_\_ is not an enabling technology of IoT**

A : Cloud Computing

B : Big data Analytics

C : Wireless sensor network

D : Operating System

**Q.no 18. Websocket is the example of which communication model**

A : Request – Response

B : Publish – Subscribe

C : Push-Pull

D : Exclusive Pair

**Q.no 19. The entities, objects and concepts defined in the Domain Model Specification**

A : Physical Entity

B : Virtual Entity

C : Device

D : All of above

**Q.no 20. What are the parameters that are default values?**

A : a) Port\_Name and Bits

B : b) Speed and Port\_Names

C : c) Speed and Parity

D : d) Stop bit and Flow Control

**Q.no 21. Which of the following is not involved in working of IoT?**

A : a) RFID

B : b) Sensor

C : c) Nano tech

D : d) Server

**Q.no 22. Which of the following system does not provision storage to most users?**

A : PaaS

B : IaaS

C : CaaS

D : SaaS

**Q.no 23. Which of the following impose additional overhead on clients and offer faster transfer?**

A : Block Storage

B : File Storage

C : File Server

D : All of the above

**Q.no 24. Which Django component concerns about metadata ?**

A : Model

B : View

C : Template

D : None of the above

**Q.no 25. Django interaction with application takes place with \_\_\_\_**

A : Template

B : model

C : view

D : Service

**Q.no 26. Two Pillars of the Web are**

**I ] The protocol**

**II] The software**

**III] Platform Middleware**

**IV] Business Intelligence**

A : Option I and II

B : Option II and III

C : Option I not III

D : Option I not IV

**Q.no 27. ZigBee is based on which of the following standard**

A : a) IEEE 802.15.4

B : b) IEEE 802.5

C : c) IEEE 802.4.13

D : d) Both a and b

**Q.no 28. What are the distributions supported by raspberry Pi?**

A : a) Arch Linux

B : b) Debain

C : c) Fedora Remix

D : d) Arch Linux, Debain, and Fedora Remix

**Q.no 29. Which of the following layers are defined by the ZigBee stack?**

A : Transport layer

B : Physical layer.

C : Application Support sub-layer.

D : Medium Access layer

**Q.no 30. \_\_\_\_\_ allows us to control electronic components**

A : a) RETful API

B : b) RESTful API

C : c) HTTP

D : d) MQTT

**Q.no 31. Which one is not True regarding WebSocketAPIs**

A : bi-directional

B : Full duplex

C : Not Secure

D : Exclusive Pair Communication

**Q.no 32. NFC stands for**

A : Near Fast Communication

B : Near Field Communication

C : Near Field Consumer

D : Near Field Connection

**Q.no 33. A network of physical objects or things embedded with electronics or softwares.**

A : a) AI

B : b) ML

C : c) IOT

D : d) Internet

**Q.no 34. Which of the following is not the component of a SCADA system?**

A : Database server

B : I/O system

C : PLC controller

D : Sparger controller

**Q.no 35. In Unified standards .....combination of data format and exchange protocol is the foundation pillar of WWW**

A : POPMAIL

B : HTML/HTTPS

C : HTML/HTTP

D : SMTP

**Q.no 36. Goal of SWE is creation of web-based sensor networks to make all sensors and repositories of**

A : Sensor data discoverable and accessible

B : Sensor data applicable, controllable

C : Providing connectivity

D : Option 1 and 2

**Q.no 37. Django forms and classes are created using \_\_\_\_\_**



A : Template

B : view

C : Model

D : Django Services

**Q.no 38. What is the speed of operation in Pi 3?**

A : a) 900MHz

B : b) 1.2GHz

C : c) 1GHz

D : d) 500MHz

**Q.no 39. List out the tools or API for developing or testing web api?**

A : Spring REST web service using MVC

B : Jersey API

C : Axis

D : All of above

**Q.no 40. For constrained nodes and constrained networks in Internet of Things which protocol is used.**

A : IPv4

B : IPv6

C : CoAP

D : MQTT

**Q.no 41. Gateway provides the connection between \_\_\_\_ and \_\_\_\_**

A : Cloud and controller

B : Network and Cloud

C : Network and Controller

D : Controller and Device

**Q.no 42. Mention which markup language can be used in restful web api?**

A : HTML

B : C

C : JSON and XML

D : JAVA

**Q.no 43. The approach/s to build WoT is through \_\_\_\_\_**  
**(I) RESTful principles.**  
**(II) REST APIs.**

A : Only (I)

B : Only (II)

C : Both (I) and (II)

D : Neither (I) nor (II)

**Q.no 44. KNX protocol Standardized , ..... communications protocol for automation**

A : ISO-based network

B : OSI-based network

C : ISI-OSI-based transport

D : ISO-based transport

**Q.no 45. Public IoT is .....**

A : made available to general public or a large industry group.

B : shared by several organizations and supports a specific community that has shared concerns.

C : operated solely for an organization.

D : an integrated composition of two or more of the IoT systems (private, community, or public)

**Q.no 46. Process Specification in IOT design Methodology -----**

A : Defines the IoT level  
for the system

B : Shows the integration of the  
devices and components.

C : Defines the use cases of the IoT system are formally described based on and derived from the purpose and requirement specifications.

D : None of above

**Q.no 47. Which of the following in LPWAN technologies**

A : a) LoRa

B : b) GSM

C : c) CDMA

D : d) LTE

**Q.no 48. Django is \_\_\_\_\_kind of framework**

A : Web Security

B : Web Enhancement

C : Web Messaging

D : Web application

**Q.no 49. .... Middleware include all Grid middleware such as MSV Cluster middleware, SSV and schedulers, etc.**

A : SaaS

B : IaaS

C : FaaS

D : PaaS

**Q.no 50. In SCADA and RFID the OPC stands for**

A : Object Process Control

B : Object Linking and Embedding for Process Control

C : Object Controlling Process Control

D : Object Identifying Process Control

**Q.no 51. CoAP provides which of the following requirements?**

A : Multicast support and simplicity

B : Low overhead and multicast support

C : Simplicity and low overhead

D : Multicast support, Low over head, and simplicity

**Q.no 52. \_\_\_\_\_ is an attack which forces an end user to execute unwanted actions on a web application in which he/she is currently authenticated.**

A : Cross-site scoring scripting

B : Cross-site request forgery

C : Two-factor authentication

D : Cross-site scripting

**Q.no 53. The technological foundation of cloud computing is distributed computing based on communication networks using.....**

A : the internet of things

B : Google servers farms and Google Map

C : Amazon Web Service

D : cluster of workstations and networks of workstations

**Q.no 54. The processor must accept and process the frame before the next frame is called as \_\_\_\_\_**

A : Hard Real time systems

B : Real time constraints

C : Real data constraints

D : Soft real constraints

**Q.no 55. Which of the following is the heart of a SCADA system?**

A : PLC

B : HMI

C : Alarm task

D : I/O task

**Q.no 56. which of the following are IoT Plaftorms**

A : a) AWS IoT

B : b) Microsoft Azure IoT

C : c) PTC ThingWorx

D : d) All of the above

**Q.no 57. HTTP resources are located by**

A : unique resource locator

B : unique resource identifier

C : none of the mentioned

D : uniform resource identifier

**Q.no 58. Embedded Systems applications typically involve processing information as \_\_\_\_\_**

A : Block

B : Logical Volumes

C : Distance

D : Signals

**Q.no 59. In threat modeling, what methodology used to perform risk analysis**

A : DREAD

B : OWASP

C : STRIDE

D : DAR

**Q.no 60. A digital multi meter is an example of an embedded system for**

A : Data communication

B : Monitoring

C : Control

D : All of these

---

**Answer for Question No 1. is c**

---

**Answer for Question No 2. is a**

---

**Answer for Question No 3. is a**

---

**Answer for Question No 4. is a**

---

**Answer for Question No 5. is c**

---

**Answer for Question No 6. is a**

---

**Answer for Question No 7. is b**

---

**Answer for Question No 8. is a**

---

**Answer for Question No 9. is c**

---

**Answer for Question No 10. is a**

---

**Answer for Question No 11. is d**

---

**Answer for Question No 12. is b**

---

**Answer for Question No 13. is c**

---

**Answer for Question No 14. is d**

---

**Answer for Question No 15. is c**

---

**Answer for Question No 16. is b**

---

**Answer for Question No 17. is d**

---

**Answer for Question No 18. is b**

---

**Answer for Question No 19. is d**

---

**Answer for Question No 20. is b**

---

**Answer for Question No 21. is d**

---

**Answer for Question No 22. is b**

---

**Answer for Question No 23. is a**

---

**Answer for Question No 24. is b**

---

**Answer for Question No 25. is b**

---

**Answer for Question No 26. is a**

---

**Answer for Question No 27. is a**

---

**Answer for Question No 28. is d**

---

**Answer for Question No 29. is d**

---

**Answer for Question No 30. is a**

---

**Answer for Question No 31. is c**

---

**Answer for Question No 32. is b**

---

**Answer for Question No 33. is c**

---

**Answer for Question No 34. is d**

---

**Answer for Question No 35. is c**

---

**Answer for Question No 36. is d**

---

**Answer for Question No 37. is a**

---

**Answer for Question No 38. is b**

---

**Answer for Question No 39. is d**

---

**Answer for Question No 40. is c**

---

**Answer for Question No 41. is a**

---

**Answer for Question No 42. is c**

---

**Answer for Question No 43. is c**

---

**Answer for Question No 44. is b**

---

**Answer for Question No 45. is a**

---

**Answer for Question No 46. is c**

---

**Answer for Question No 47. is a**

---

**Answer for Question No 48. is d**

---



**Answer for Question No 49. is b**

---

**Answer for Question No 50. is b**

---

**Answer for Question No 51. is d**

---

**Answer for Question No 52. is d**

---

**Answer for Question No 53. is d**

---

**Answer for Question No 54. is a**

---

**Answer for Question No 55. is d**

---

**Answer for Question No 56. is d**

---

**Answer for Question No 57. is d**

---

**Answer for Question No 58. is d**

---

**Answer for Question No 59. is a**

---

**Answer for Question No 60. is b**

---

Total number of questions : 60

11678\_EMBEDDED SYSTEM AND INTERNET OF THINGS

Time : 1hr

Max Marks : 50

N.B

- 1) All questions are Multiple Choice Questions having single correct option.
- 2) Attempt any 50 questions out of 60.
- 3) Use of calculator is allowed.
- 4) Each question carries 1 Mark.
- 5) Specially abled students are allowed 20 minutes extra for examination.
- 6) Do not use pencils to darken answer.
- 7) Use only black/blue ball point pen to darken the appropriate circle.
- 8) No change will be allowed once the answer is marked on OMR Sheet.
- 9) Rough work shall not be done on OMR sheet or on question paper.
- 10) Darken ONLY ONE CIRCLE for each answer.

---

**Q.no 1. Which of the following provide access for developers to charge Amazon's customer for their purchases ?**

A : FWS

B : FAS

C : FPS

D : All of the mentioned

**Q.no 2. Amazon DynamoDB is**

A : Relational database in cloud

B : No-SQL database service

C : Hierarchical Databases

D : Distributed Databases

**Q.no 3. What kind of electronic document contains a public key?**

A : PIN

B : Digital certificate

C : PAN

D : Biometrics

**Q.no 4. How many virtual servers can be launch with Amazon EC2 ?**

A : 1

B : 2

C : Infinite

D : 0

**Q.no 5. Information Model defines the ----- of all the information in the IoT system**

A : Structure

B : service

C : Network

D : Device

**Q.no 6. BRIDGE stands for**

A : Building Radio-Frequency Identifier

B : Building Radio-Frequency Identification

C : Building Radio-Frequency Identity

D : Building Radio-Frequent Identification

**Q.no 7. Which protocol is an open standard**

A : CoAP

B : MQTT

C : XMPP

D : HTTP

**Q.no 8. What is the full form of SCADA?**

A : a) Supervisory Control and Document Acquisition

B : b) Supervisory Control and Data Acquisition

C : c) Supervisory Column and Data Assessment

D : d) Supervisory Column and Data Assessment

**Q.no 9. Wi-Fi stands for?**

A : a) Wireless fidelity

B : b) Wireless Flexibility

C : c) Wide Fidelity

D : d) WAN Flexibility

**Q.no 10. Which is the last layer in the WoT architecture?**

A : Composition Layer

B : Sharing Layer

C : Findability Layer

D : Accessibility Layer

**Q.no 11. Which of the following instance is used by default in AMI?**

A : High-Memory Quadruple Extra Large Instance

B : Small Instance

C : Micro Instance

D : High-CPU Extra Large Instance

**Q.no 12. This Process of identifying any individual is called as.**

A : Auditing

B : Authorisation

C : Authentication

D : Accounting

**Q.no 13. Services in Operational View Specifications are**

- A : Mode service
- B : State service
- C : Controller Service
- D : All of above

**Q.no 14. Which company played a key role in the development of cloud computing?**

- A : Microsoft
- B : Google
- C : Amazon
- D : Cloudera

**Q.no 15. How power supply is done to RPi?**

- A : a) USB connection
- B : b) Internal battery
- C : c) Charger
- D : d) Adapter

**Q.no 16. Each Functional Group either provides functionalities for interacting with instances of concepts defined in the ----- or provides information related to these concepts.**

- A : System Model
- B : Network Model
- C : Domain Model
- D : Basic Model

**Q.no 17. Which of the following is storage data interchange interface for stored data objects?**

- A : OCC
- B : OCCI

C : OCMI

D : All of the above

**Q.no 18. Operational View Specification consist of**

A : service hosting options

B : storage options

C : device options

D : All of above

**Q.no 19. MQTT protocol is based on**

A : Client-Server Architecture

B : Publish-Subscribe Architecture

C : Both of the above

D : Peer to peer Architecture

**Q.no 20. SOA stands for .....**

A : Solution Oriented Architecture

B : Sector Oriented Architecture

C : Source Oriented Architecture

D : Service Oriented Architecture

**Q.no 21. The Functional View (FV) defines the functions of the IoT systems grouped into various -----.**

A : Network Groups (NGs)

B : Model Groups (MGs)

C : Domain Groups (DGs)

D : Functional Groups (FGs)

**Q.no 22. How many USB ports are present in Raspberry Pi 3?**

A : a) 5

B : b) 2

C : c) 4

D : d) 3

**Q.no 23. In Core of SODA which standard is based on XML encodings**

A : DDL

B : XML

C : SOA

D : SODA

**Q.no 24. In SCADA system the controlling is done by**

A : Online control

B : Direct control

C : Supervisory control

D : Automatic control

**Q.no 25. The sixth step in the IoT design methodology is to define the ----- for the system.**

A : IoT level

B : IOT BASICS

C : IOT PAYLOAD

D : IOT CHECKSUM

**Q.no 26. \_\_\_\_ manages metadata of IoT services**

A : Power

B : Controller

C : Scheduler

D : Package

**Q.no 27. Community IoT is .....**

A : made available to general public or a large industry group.

B : shared by several organizations and supports a specific community that has shared concerns.

C : operated solely for an organization.

D : an integrated composition of two or more of the IoT systems (private, community, or public)

**Q.no 28. Which of the following protocol is based on REST architecture**

A : a) HTTP

B : b) CoAP

C : c) Both a and b

D : d) MQTT

**Q.no 29. What is the speed of operation in Pi 3?**

A : a) 900MHz

B : b) 1.2GHz

C : c) 1GHz

D : d) 500MHz

**Q.no 30. Which of there following badatabse is recommended for unstrusted data for IoT application**

A : a) Microsoft SQL

B : b) Postgres SQL

C : c) Mongo DB

D : d) None of the above

**Q.no 31. What should be frequency of soil for hand gesturing functions ?**

A : 50 Hz

B : 60 Hz

C : 35 Hz

D : 40 Hz



**Q.no 32. Standardization is like a double-edged sword:But it may threaten ..... when standards are accepted by the market**

A : innovation and inhibit change

B : innovation

C : inhibit change

D : change

**Q.no 33. Last step in IoT Design Methodology is**

A : IoT Level Specification

B : Functional View Specification

C : Operational View Specification

D : None of Above

**Q.no 34. WiFi is not present in which of the following models?**

A : a) Raspberry Pi3

B : b) Raspberry Pi Zero WH

C : c) Raspberry Pi Zero W

D : d) Raspberry Pi Zero

**Q.no 35. Which of the following Hardware can be alone used as IoT Gateway**

A : a) RaspberriPI

B : b) NodeMCU ESP8266

C : c) Arduino UNO

D : d) Both a and b

**Q.no 36. Private IoT is .....**

A : made available to general public or a large industry group.

B : shared by several organizations and supports a specific community that has shared concerns.

C : operated solely for an organization.

D : an integrated composition of two or more of the IoT systems (private, community, or public)

**Q.no 37. Which of the Following are ZigBee based application**

A : FM Radio

B : low-power High-bandwidth

C : Balestic Missile

D : Medical Device Data Collection

**Q.no 38. \_\_\_\_\_ is the instruction set used by ARM7**

A : 16-bit instruction set

B : 32-bit instruction set

C : 8-bit instruction set

D : 64 Bit instruction set

**Q.no 39. Process Model Specification defines**

A : USE Cases

B : Processes

C : Views

D : Network Topology

**Q.no 40. Which one is not a type Of RTOS**

A : 1)Hard RTOS

B : Soft RTOS

C : Firm RTOS

D : Embedded RTOS

**Q.no 41. \_\_\_\_\_ is used to describe a perceived, quickly growing set of web based applications.**

A : Web 1.0

B : Web 2.0

C : Web 3.5

D : Web 4.0

**Q.no 42. ....Involves confidentiality and integrity of sensitive information stored in the system**

A : Secure Storage

B : Secure Software Execution

C : Trust Management

D : Data Availability

**Q.no 43. .... supports virtualization creates virtual versions of the resources like servers, storage and OS.**

A : Grid Computing

B : Data Mining

C : Cloud Computing

D : Business Intelligence

**Q.no 44. DDL classifies devices into three categories**

A : API, actutators and complex devices

B : Bundles, API and sensors

C : OSGI, API and actutators

D : Sensor, actutators and complex devices

**Q.no 45. \_\_\_\_\_ is the exampe of decentralised application layer protocol**

A : XMPP

B : HTTP

C : CoAP

D : MQTT

**Q.no 46. IEEE 802.15.4 framework conceives a 10m communications range with a transfer rate of**

A : 250 Kbits/s

B : 520 Kbits/s

C : 205 Kbits/s

D : 250 bits/s

**Q.no 47. In unauthorized access.....should be done before granting the access rights**

A : Value-based verification

B : Identity-based verification

C : Name-based verification

D : Number-based verification

**Q.no 48. How many levels are present in a complex SCADA system?**

A : a) 3 – levels

B : b) 5 – levels

C : c) 4 – levels

D : d) 6 – levels

**Q.no 49. The ..... has features such as offline support, canvas drawing based on low footprint SVG graphics, GeolocationAPI, video and audio streaming support with flash, WebStorage, CSS3 Selectors, 2D animation for mobile cloud applications.**

A : HTML5

B : HTML4

C : HTML3

D : HTML2

**Q.no 50. What is SCADA?**

A : Software

B : Process

C : System

D : Hardware

**Q.no 51. Frequency band used by 802.11 ah standard is:**

A : 60 GHz

B : 2.4 GHz

C : Sub 1 GHz

D : 5 GHz

**Q.no 52. The technological foundation of cloud computing is distributed computing based on communication networks using.....**

A : the internet of things

B : Google servers farms and Google Map

C : Amazon Web Service

D : cluster of workstations and networks of workstations

**Q.no 53. WOT is**

**I] An applications' platform**

**II] Explores the layer top of connectivity with things**

**III] fast prototyping, data integration and interaction with objects**

A : Only III

B : Option I and III

C : Option I not III

D : Option I, II and III

**Q.no 54. REST follows \_\_\_\_\_communication model**

A : Request Response model

B : Publish Subscribe model

C : Push Pull model

D : Exclusive Pair model

**Q.no 55. Which of the following is the heart of a SCADA system?**

A : PLC

B : HMI

C : Alarm task

D : I/O task

**Q.no 56. Which of the following specifies a set of media access control (MAC) and physical layer specifications for implementing WLANs?**

A : IEEE 802.16

B : IEEE 802.3

C : IEEE 802.11

D : IEEE 802.15

**Q.no 57. ARM processors where basically designed for**

A : Main frame systems

B : Distributed systems

C : Mobile systems

D : Super computers

**Q.no 58. MQTT protocol uses \_\_\_\_\_communication model.**

A : Publish Subscribe model

B : Push Pull model

C : Exclusive Pair model

D : Request Response model

**Q.no 59. IoT level \_\_\_\_\_ systems are suitable for solutions where multiple nodes are required, the data involved is big and the analysis requirements are computationally intensive**

A : Level1

B : Level 2

C : Level 3

D : Level 4

**Q.no 60. Embedded Systems applications typically involve processing information as \_\_\_\_\_**

A : Block

B : Logical Volumes

C : Distance

D : Signals

---

**Answer for Question No 1. is c**

---

**Answer for Question No 2. is b**

---

**Answer for Question No 3. is b**

---

**Answer for Question No 4. is c**

---

**Answer for Question No 5. is a**

---

**Answer for Question No 6. is b**

---

**Answer for Question No 7. is b**

---

**Answer for Question No 8. is b**

---

**Answer for Question No 9. is a**

---

**Answer for Question No 10. is a**

---

**Answer for Question No 11. is b**

---

**Answer for Question No 12. is c**

---

**Answer for Question No 13. is d**

---

**Answer for Question No 14. is c**

---

**Answer for Question No 15. is a**

---

**Answer for Question No 16. is c**



---

**Answer for Question No 17. is a**

---

**Answer for Question No 18. is d**

---

**Answer for Question No 19. is b**

---

**Answer for Question No 20. is d**

---

**Answer for Question No 21. is d**

---

**Answer for Question No 22. is c**

---

**Answer for Question No 23. is a**

---

**Answer for Question No 24. is c**

---

**Answer for Question No 25. is a**

---

**Answer for Question No 26. is c**

---

**Answer for Question No 27. is b**

---

**Answer for Question No 28. is c**

---

**Answer for Question No 29. is b**

---

**Answer for Question No 30. is c**

---

**Answer for Question No 31. is b**

---

**Answer for Question No 32. is a**

---

**Answer for Question No 33. is d**

---

**Answer for Question No 34. is d**

---

**Answer for Question No 35. is d**

---

**Answer for Question No 36. is c**

---

**Answer for Question No 37. is d**

---

**Answer for Question No 38. is a**

---

**Answer for Question No 39. is a**

---

**Answer for Question No 40. is d**

---

**Answer for Question No 41. is b**

---

**Answer for Question No 42. is a**

---

**Answer for Question No 43. is c**

---

**Answer for Question No 44. is d**

---

**Answer for Question No 45. is a**

---

**Answer for Question No 46. is a**

---

**Answer for Question No 47. is b**

---

**Answer for Question No 48. is c**

---

**Answer for Question No 49. is a**

---

**Answer for Question No 50. is b**

---

**Answer for Question No 51. is c**

---

**Answer for Question No 52. is d**

---

**Answer for Question No 53. is a**

---

**Answer for Question No 54. is a**

---

**Answer for Question No 55. is d**

---

**Answer for Question No 56. is c**

---

**Answer for Question No 57. is c**

---

**Answer for Question No 58. is a**

---

**Answer for Question No 59. is d**

---

**Answer for Question No 60. is d**

---

Total number of questions : 60

11678\_EMBEDDED SYSTEM AND INTERNET OF THINGS

Time : 1hr

Max Marks : 50

N.B

- 1) All questions are Multiple Choice Questions having single correct option.
  - 2) Attempt any 50 questions out of 60.
  - 3) Use of calculator is allowed.
  - 4) Each question carries 1 Mark.
  - 5) Specially abled students are allowed 20 minutes extra for examination.
  - 6) Do not use pencils to darken answer.
  - 7) Use only black/blue ball point pen to darken the appropriate circle.
  - 8) No change will be allowed once the answer is marked on OMR Sheet.
  - 9) Rough work shall not be done on OMR sheet or on question paper.
  - 10) Darken ONLY ONE CIRCLE for each answer.
- 

**Q.no 1. In Core of SODA which standard is based on XML encodings**

A : DDL

B : XML

C : SOA

D : SODA

**Q.no 2. What is the Ethernet/LAN cable used in RPi?**

A : a) Cat5

B : b) Cat5e

C : c) Cat6

D : d) RJ45

**Q.no 3. Which of the following impose additional overhead on clients and offer faster transfer?**

- A : Block Storage
- B : File Storage
- C : File Server
- D : All of the above

**Q.no 4. Which of the following feature is used for scaling EC2 sites ?**

- A : Auto Replica
- B : Auto Scaling
- C : Auto Ruling
- D : All of the mentioned

**Q.no 5. How many USB ports are present in Raspberry Pi 3?**

- A : a) 5
- B : b) 2
- C : c) 4
- D : d) 3

**Q.no 6. Xivety is available as \_\_\_\_\_**

- A : IaaS
- B : SaaS
- C : CaaS
- D : Paas

**Q.no 7. Which company played a key role in the development of cloud computing?**

- A : Microsoft
- B : Google
- C : Amazon
- D : Cloudera

**Q.no 8. M2M protocol standards activities include..**

A : M2MXML

B : SDN

C : NFV

D : SNMP

**Q.no 9. Standard ports of MQTT are**

A : I2C

B : SSL

C : USART

D : TCP/IP

**Q.no 10. ANSI/ISA-95 standard used for**

A : Reduce cost, errors and risk with production process

B : Reduce errors and risk with production process

C : Reduce cost and risk with production process

D : Reduce cost, and errors and with production process

**Q.no 11. WAMP uses \_\_\_\_ messaging pattern**

A : Function call

B : Procedure call

C : RPC

D : Web based

**Q.no 12. How many categories of storage devices broadly exist in cloud?**

A : 1

B : 2

C : 3

D : 4

**Q.no 13. Data stored in \_\_\_\_\_ domains doesn't require maintenance of schema.**

A : SimpleDB

B : SQL Server

C : Oracle

D : RDS

**Q.no 14. Which is not a open-source SaaS (Software-as-a-Service) project?**

A : Ubuntu

B : Microsoft Office 365

C : openSIS

D : Zimbra

**Q.no 15. Which one is the First step in IOT Platforms Design Methodology**

A : Process Model Specification

B : Purpose and Requirement

C : Domain Model Specification

D : Service Specification

**Q.no 16. Which Django component concerns about metadata ?**

A : Model

B : View

C : Template

D : None of the above

**Q.no 17. Amazon DynamoDB is**

A : Relational database in cloud

B : No-SQL database service

C : Hierarchical Databases

D : Distributed Databases

**Q.no 18. What are advantages of Auto Scaling ?**

- A : Better Availability
- B : Better Cost management
- C : Fault Tolerance
- D : All of the mentioned

**Q.no 19. How many layers contain by WoT architecture ?**

- A : 3
- B : 4
- C : 5
- D : 6

**Q.no 20. To define the information model, we first list the ----- Entities defined**

- A : Dynamic
- B : Virtual
- C : System
- D : Basic

**Q.no 21. Which of the following system does not provision storage to most users?**

- A : PaaS
- B : IaaS
- C : CaaS
- D : SaaS

**Q.no 22. What is SCADA?**

- A : a) Software
- B : b) Process
- C : c) System
- D : d) Hardware



**Q.no 23. Amazon EC2 configuration determined by ?**

A : CPU

B : memory & storage

C : networking capability

D : All of the mentioned

**Q.no 24. Amazon S3 stands for**

A : Secure storage service

B : Session storage service

C : Simple storage service

D : Sample storage service

**Q.no 25. \_\_\_\_\_ is not an enabling technology of IoT**

A : Cloud Computing

B : Big data Analytics

C : Wireless sensor network

D : Operating System

**Q.no 26. Range of Zigbee is low-cost and low-powered mesh network \_\_\_\_\_**

A : 10-100 meters

B : 100-1000 meters

C : 10-100 cm

D : 100-1000 cm

**Q.no 27. \_\_\_\_\_ is the instruction set used by ARM7**

A : 16-bit instruction set

B : 32-bit instruction set

C : 8-bit instruction set

D : 64 Bit instruction set

**Q.no 28. In SCADA Standardization Efforts:The standard specifies the communication of .....between control devices from different manufacturers**

A : plant data

B : non real-time plant data

C : real- time plant data

D : CBR Data

**Q.no 29. Which of the following is not a characteristic of a ZigBee network?**

A : Low power consumption

B : Easy installation.

C : High data rates.

D : Unlicensed radio bands.

**Q.no 30. Process Model Specification defines**

A : USE Cases

B : Processes

C : Views

D : Network Topology

**Q.no 31. The ..... has features such as offline support, canvas drawing based on low footprint SVG graphics, GeolocationAPI, video and audio streaming support with flash, WebStorage, CSS3 Selectors, 2D animation for mobile cloud applications.**

A : HTML5

B : HTML4

C : HTML3

D : HTML2

**Q.no 32. NFC stands for**

A : Near Fast Communication

B : Near Field Communication

C : Near Field Consumer

D : Near Field Connection

**Q.no 33. WAMP is**

A : Unidirectional

B : Bidirectional

C : both

D : None of the above

**Q.no 34. .... Middleware include all Grid middleware such as MSV Cluster middleware, SSV and schedulers, etc.**

A : SaaS

B : IaaS

C : FaaS

D : PaaS

**Q.no 35. The mango open source software platform for IOT and M2M has natural fit between**

A : CORBA &DOM

B : POJO & JSON

C : JASON &M2M

D : SOAP & POJO

**Q.no 36. Which of the following is an (are) an intended purpose(s) of embedded systems?**

A : Data collection

B : Data processing

C : Data communication

D : All of these

**Q.no 37. Which of the following is the vulnerabilities of IoT**

A : MALC

B : DDOS

C : DOSD

D : SSOD

**Q.no 38. What is the long form of OMTP, which was a forum crated by mobile network operators to discuss standards with manufacturers of cell phones and other mobile devices.**

A : Open Mobile Transport Protocol

B : Open Middleware Terminal Platform

C : Open Mobile Terminal Platform

D : Open Middleware Transport Protocol

**Q.no 39. Gateway provides the connection between \_\_\_\_ and \_\_\_\_**

A : Cloud and controller

B : Network and Cloud

C : Network and Controller

D : Controller and Device

**Q.no 40. DHT11 sensor is used to sens which of there wollowing parameters**

A : a) Temperature

B : b) Pressure

C : c) Humidity

D : d) Both a and c

**Q.no 41. Which of the following is not the component of a SCADA system?**

A : Database server

B : I/O system

C : PLC controller

D : Sparger controller

**Q.no 42. Hybrid IoT is .....**

A : made available to general public or a large industry group.

B : shared by several organizations and supports a specific community that has shared concerns.

C : operated solely for an organization.

D : an integrated composition of two or more of the IoT systems (private, community, or public)

**Q.no 43. Which of the following Hardware can be alone used as IoT Gateway**

A : a) RaspberriPI

B : b) NodeMCU ESP8266

C : c) Arduino UNO

D : d) Both a and b

**Q.no 44. \_\_\_\_\_ is the exampe of decentralised application layer protocol**

A : XMPP

B : HTTP

C : CoAP

D : MQTT

**Q.no 45. The approach/s to build WoT is through \_\_\_\_\_**

**(I) RESTful principles.**

**(II) REST APIs.**

A : Only (I)

B : Only (II)

C : Both (I) and (II)

D : Neither (I) nor (II)

**Q.no 46. In which Step the system purpose, behavior and requirements (such as data collection requirements, data analysis requirements, system management requirements, data privacy and security requirements, user interface requirements, ...) are captured.**

A : Application Development

B : Device & Component Integration

C : Operational View Specification

D : Purpose & Requirements Specification

**Q.no 47. Community IoT is .....**

A : made available to general public or a large industry group.

B : shared by several organizations and supports a specific community that has shared concerns.

C : operated solely for an organization.

D : an integrated composition of two or more of the IoT systems (private, community, or public)

**Q.no 48. What is the typical range of transmission distance in a ZigBee network?**

A : 5 m.

B : 50 m.

C : 500 m.

D : 5 km

**Q.no 49. WiFi is not present in which of the following models?**

A : a) Raspberry Pi3

B : b) Raspberry Pi Zero WH

C : c) Raspberry Pi Zero W

D : d) Raspberry Pi Zero

**Q.no 50. A network of physical objects or things embedded with electronics or softwares.**

A : a) AI

B : b) ML

C : c) IOT

D : d) Internet

**Q.no 51. The cloud middleware consists of two kinds of middleware.....**

A : IaaS and PaaS

B : IaaS and SaaS

C : SaaS and PaaS

D : SaaS and BaaS

**Q.no 52. REST follows \_\_\_\_\_communication model**

A : Request Response model

B : Publish Subscribe model

C : Push Pull model

D : Exclusive Pair model

**Q.no 53. \_\_\_\_\_ is a collection of wireless broadband standards (WiMax).**

A : IEEE 802.3

B : IEEE 802.11

C : IEEE 802.16

D : IEEE 802.15.4

**Q.no 54. Find the correct statement with respect to SOA**

**I ) It describes a standard method for requesting services from distributed components and managing the results**

**II) SOA provides the translation and management layer in an architecture that removes the barrier for a client obtaining desired services**

**III) With SOA, clients and components can be written in different languages and can use multiple messaging protocols**

A : Option I and II

B : Option I,II and III

C : Only Option I

D : Only Option III

**Q.no 55. Which of the following specifies a set of media access control (MAC) and physical layer specifications for implementing WLANs?**

A : IEEE 802.16

B : IEEE 802.3

C : IEEE 802.11

D : IEEE 802.15

**Q.no 56. HTTP resources are located by**

A : unique resource locator

B : unique resource identifier

C : none of the mentioned

D : uniform resource identifier

**Q.no 57. For.....Secure, lightweight, and efficient key exchange mechanism is required**

A : Data Availability

B : Trust Management

C : Data Confidentiality

D : Secure Storage

**Q.no 58. Which system is a batch processing extension of the scatter-barrier-reduce primitives of MPI/PVM?**

A : Google Map

B : MapReduce

C : MPI and OpenMP

D : Hadoop

**Q.no 59. APS Provides services necessary for.....**

A : application Management and the ZigBee layers

B : application objects(endpoints) and the ZigBee device object (ZDO)

C : application Management and security management

D : Application Management

**Q.no 60. Zigbee architectures consist of which the following section**

A : Physical



B : ZigBee device

C : Transport

D : IEEE 802.15.4

---

**Answer for Question No 1. is a**

---

**Answer for Question No 2. is d**

---

**Answer for Question No 3. is a**

---

**Answer for Question No 4. is b**

---

**Answer for Question No 5. is c**

---

**Answer for Question No 6. is d**

---

**Answer for Question No 7. is c**

---

**Answer for Question No 8. is a**

---

**Answer for Question No 9. is d**

---

**Answer for Question No 10. is a**

---

**Answer for Question No 11. is c**

---

**Answer for Question No 12. is b**

---

**Answer for Question No 13. is a**

---

**Answer for Question No 14. is b**

---

**Answer for Question No 15. is b**

---

**Answer for Question No 16. is b**

---

**Answer for Question No 17. is b**

---

**Answer for Question No 18. is d**

---

**Answer for Question No 19. is b**

---

**Answer for Question No 20. is b**

---

**Answer for Question No 21. is b**

---

**Answer for Question No 22. is b**

---

**Answer for Question No 23. is d**

---

**Answer for Question No 24. is c**

---

**Answer for Question No 25. is d**

---

**Answer for Question No 26. is a**

---

**Answer for Question No 27. is a**

---

**Answer for Question No 28. is c**

---

**Answer for Question No 29. is c**

---

**Answer for Question No 30. is a**

---

**Answer for Question No 31. is a**

---

**Answer for Question No 32. is b**

---

**Answer for Question No 33. is b**

---

**Answer for Question No 34. is b**

---

**Answer for Question No 35. is c**

---

**Answer for Question No 36. is d**

---

**Answer for Question No 37. is b**

---

**Answer for Question No 38. is c**

---

**Answer for Question No 39. is a**

---

**Answer for Question No 40. is d**

---

**Answer for Question No 41. is d**

---

**Answer for Question No 42. is d**

---

**Answer for Question No 43. is d**

---

**Answer for Question No 44. is a**

---

**Answer for Question No 45. is c**

---

**Answer for Question No 46. is d**

---

**Answer for Question No 47. is b**

---

**Answer for Question No 48. is b**

---

**Answer for Question No 49. is d**

---

**Answer for Question No 50. is c**

---

**Answer for Question No 51. is a**

---

**Answer for Question No 52. is a**

---

**Answer for Question No 53. is c**

---

**Answer for Question No 54. is b**

---

**Answer for Question No 55. is c**

---

**Answer for Question No 56. is d**

---

**Answer for Question No 57. is c**

---

**Answer for Question No 58. is b**

---

**Answer for Question No 59. is d**

---

**Answer for Question No 60. is d**

---

Total number of questions : 60

11678\_EMBEDDED SYSTEM AND INTERNET OF THINGS

Time : 1hr

Max Marks : 50

N.B

- 1) All questions are Multiple Choice Questions having single correct option.
  - 2) Attempt any 50 questions out of 60.
  - 3) Use of calculator is allowed.
  - 4) Each question carries 1 Mark.
  - 5) Specially abled students are allowed 20 minutes extra for examination.
  - 6) Do not use pencils to darken answer.
  - 7) Use only black/blue ball point pen to darken the appropriate circle.
  - 8) No change will be allowed once the answer is marked on OMR Sheet.
  - 9) Rough work shall not be done on OMR sheet or on question paper.
  - 10) Darken ONLY ONE CIRCLE for each answer.
- 

**Q.no 1. MQTT is \_\_\_\_\_ protocol.**

A : a) Machine to Machine

B : b) Internet of Things

C : c) Machine to Machine and Internet of Things

D : d) Machine Things

**Q.no 2. In 1999, Marc Benioff founded a company, which pioneered the multi-tenant SaaS model, a new application-delivering mechanism. Which company is that?**

A : Salesforce

B : Oracle Siebel

C : SAP CRM

D : Infusionsoft

**Q.no 3. Making the smaller and smaller things have the ability to connect and interact.**

A : a) Micro Tech

B : b) Smart tech

C : c) Nano tech

D : d) RFID

**Q.no 4. Which of the following system does not provision storage to most users?**

A : PaaS

B : IaaS

C : CaaS

D : SaaS

**Q.no 5. IoT has \_\_\_\_\_ number of levels.**

A : 4

B : 3

C : 5

D : 6

**Q.no 6. Which is true about model view controller architecture of Django**

A : It represents by a database

B : It is user interface that you see in browser

C : It connects view and model together

D : None of the above

**Q.no 7. Which of the following provide access for developers to charge Amazon's customer for their purchases ?**

A : FWS

B : FAS

C : FPS

D : All of the mentioned

**Q.no 8. In M2M/ IoT protocols the payload and header is very \_\_\_\_\_**

A : Small

B : Big

C : Same as Internet Protocol

D : Moderate

**Q.no 9. WAMP uses \_\_\_\_\_ messaging pattern**

A : Function call

B : Procedure call

C : RPC

D : Web based

**Q.no 10. Operational View Specification consist of**

A : service hosting options

B : storage options

C : device options

D : All of above

**Q.no 11. Two of the most common protocols for SCADA \_\_\_\_\_**

A : DNP3

B : T101

C : Both A & B

D : IPv4

**Q.no 12. DCS is a \_\_\_\_\_**

A : a) Distributed Control System

B : b) Data Control System

C : c) Data Column System



D : d) Distributed Column System

**Q.no 13. MQTT stands for \_\_\_\_\_**

A : a) MQ Telemetry Things

B : b) MQ Transport Telemetry

C : c) MQ Transport Things

D : d) MQ Telemetry Transport

**Q.no 14. Which of the following is storage data interchange interface for stored data objects?**

A : OCC

B : OCCI

C : OCMI

D : All of the above

**Q.no 15. Which is the last layer in the WoT architecture?**

A : Composition Layer

B : Sharing Layer

C : Findability Layer

D : Accessibility Layer

**Q.no 16. MQTT is \_\_\_\_\_ oriented protocol.**

A : Data

B : Message

C : Network

D : Device

**Q.no 17. \_\_\_\_\_ is an example of Hard Real time Systems**

A : Failure in radar functioning

B : Printer

C : Watch

D : Washing Machine

**Q.no 18. Amazon launched ..... on a utility computing basis in 2006, which is now categorized as IaaS (Infrastructure as a service).**

A : Amazon Prime

B : Amazon Web Series

C : AWS Academy

D : Amazon Web Service

**Q.no 19. Amazon S3 is**

A : data storage infrastructure

B : compute capacity in the cloud

C : relational database in cloud

D : None of the above

**Q.no 20. \_\_\_\_\_ is not an enabling technology of IoT**

A : Cloud Computing

B : Big data Analytics

C : Wireless sensor network

D : Operating System

**Q.no 21. How many types of voice communications in IoT environment :**

A : 2

B : 3

C : 4

D : 5

**Q.no 22. MQTT stands for**

A : MQ Telemetry Things

B : MQ Transport Telemetry

C : MQ Transport Things

D : MQ Telemetry Transport

**Q.no 23. Django interaction with application takes place with \_\_\_\_\_**

A : Template

B : model

C : view

D : Service

**Q.no 24. WAMP stands for \_\_\_\_\_**

A : Web Analysed Messaging Protocol

B : Web Authorised Messaging Prototcol

C : Web Application Messaging Protocol

D : Web Appliance Messaging Protocol

**Q.no 25. Which amongst the following is fastest Amazon Web Service ?**

A : Amazon RDS

B : Amazon EC2

C : Amazon S3

D : Amazon DynamoDB

**Q.no 26. Community IoT is .....**

A : made available to general public or a large industry group.

B : shared by several organizations and supports a specific community that has shared concerns.

C : operated solely for an organization.

D : an integrated composition of two or more of the IoT systems (private, community, or public)

**Q.no 27. Raspbian OS used in RaspberryPi is based on which of the following OS**

A : a) RTOS

B : b) Windows

C : c) Debian Linux

D : d) None of there above

**Q.no 28. Which one is IoT Communication Models**

A : Request-Response

B : Publish-Subscribe

C : All of Above

D : None Of Above

**Q.no 29. NFC stands for**

A : Near Fast Communication

B : Near Field Communication

C : Near Field Consumer

D : Near Field Connection

**Q.no 30. WiFi uses how much frequency ?**

A : 2.2 GHz

B : 3 GHz

C : 3.5 GHz

D : 2.4 GHz

**Q.no 31. \_\_\_\_\_ is the processor used by ARM7.**

A : 8-bit CISC

B : 8-bit RISC

C : 32-bit CISC

D : 32-bit RISC

**Q.no 32. A smart object is defined by IPSO**

A : Internet Protocol Smart Object

B : Internet Protocol Sensor Object

C : International Protocol Smart Object

D : International Protocol Sensor Object

**Q.no 33. DHT11 sensor is used to sens which of there wollowing parameters**

A : a) Temperature

B : b) Pressure

C : c) Humidity

D : d) Both a and c

**Q.no 34. WAMP is**

A : Unidirectional

B : Bidirectional

C : both

D : None of the above

**Q.no 35. What should be frequency of soil for hand gesturing functions ?**

A : 50 Hz

B : 60 Hz

C : 35 Hz

D : 40 Hz

**Q.no 36. The approach/s to build WoT is through \_\_\_\_\_**

**(I) RESTful principles.**

**(II) REST APIs.**

A : Only (I)

B : Only (II)

C : Both (I) and (II)

D : Neither (I) nor (II)

**Q.no 37. Which of the following tools are used for measuring I/O of system to estimate transaction costs ?**

A : EBS

B : IOSTAT

C : ESW

D : All of the above

**Q.no 38. In SCADA Standardization Efforts:The standard specifies the communication of .....between control devices from different manufacturers**

A : plant data

B : non real-time plant data

C : real- time plant data

D : CBR Data

**Q.no 39. Amazon EC2 data is stored using \_\_\_\_\_**

A : EBS

B : ECS

C : Cloud

D : Database

**Q.no 40. Which one is not a type Of RTOS**

A : 1)Hard RTOS

B : Soft RTOS

C : Firm RTOS

D : Embedded RTOS

**Q.no 41. ....Commonly available for connecting industrial electronic devices**

A : BACNet

B : MODBus

C : LRWPAN

D : WPAN

**Q.no 42. Applicatiion Development in IoT Design Methodology is ----- Step**

A : First

B : Second

C : Third

D : Last

**Q.no 43. Which of the following is (are) example(s) of embedded system for data communication? USB Mass Storage device**

A : Network router

B : Digital camera

C : Music player

D : All of these

**Q.no 44. ....Involves confidentiality and integrity of sensitive information stored in the system**

A : Secure Storage

B : Secure Software Execution

C : Trust Management

D : Data Availability

**Q.no 45. Raspberry Pi Runs on customized Debian Linux called -----**

A : UNIX

B : Raspbian OS

C : MAC

D : Windows

**Q.no 46. List out the tools or API for developing or testing web api?**

A : Spring REST web service using MVC

B : Jersey API

C : Axis

D : All of above

**Q.no 47. What is the speed of operation in Pi 3?**

A : a) 900MHz

B : b) 1.2GHz

C : c) 1GHz

D : d) 500MHz

**Q.no 48. What does WoT do ?**

**(I) Re-invent completely new standards.**

**(II) Reuses existing and well known standards.**

A : ONLY (I)

B : ONLY (II)

C : Both (I) and (II)

D : Neither (I) nor (II)

**Q.no 49. \_\_\_\_\_ is the example of decentralised application layer protocol**

A : XMPP

B : HTTP

C : CoAP

D : MQTT

**Q.no 50. Which of the following is not the component of a SCADA system?**

A : Database server

B : I/O system

C : PLC controller

D : Sparger controller

**Q.no 51. IEEE 802.15.4 is a technical standard which defines the operation of**  
\_\_\_\_\_

A : LR-WPANs

B : USN

C : WSN



D : Zigbee

**Q.no 52. REST follows \_\_\_\_\_communication model**

A : Request Response model

B : Publish Subscribe model

C : Push Pull model

D : Exclusive Pair model

**Q.no 53. which of the following are IoT Platforms**

A : a) AWS IoT

B : b) Microsoft Azure IoT

C : c) PTC ThingWorx

D : d) All of the above

**Q.no 54. IoT level \_\_\_\_\_ systems are suitable for solutions where multiple nodes are required, the data involved is big and the analysis requirements are computationally intensive**

A : Level1

B : Level 2

C : Level 3

D : Level 4

**Q.no 55. .... is the direct technological ancestor of cloud computing, which also has roots in the COW technology.**

A : Pervasive computing

B : Mobile computing

C : Grid computing

D : Quantum Computing

**Q.no 56. The processor must accept and process the frame before the next frame is called as \_\_\_\_\_**

A : Hard Real time systems

B : Real time constraints

C : Real data constraints

D : Soft real constraints

**Q.no 57. The cloud middleware consists of two kinds of middleware.....**

A : IaaS and PaaS

B : IaaS and SaaS

C : SaaS and PaaS

D : SaaS and BaaS

**Q.no 58. From following which one is not fit for IOT Level**

A : IOT LEVEL 1

B : IOT LEVEL 2

C : IOT LEVEL 3

D : IOT LEVEL 11

**Q.no 59. In threat modeling, what methodology used to perform risk analysis**

A : DREAD

B : OWASP

C : STRIDE

D : DAR

**Q.no 60. Private cloud, public cloud, community cloud and hybrid cloud are four ..... models of cloud.**

A : deployment

B : characteristic

C : solution

D : service

---

**Answer for Question No 1. is c**

---

**Answer for Question No 2. is a**

---

**Answer for Question No 3. is c**

---

**Answer for Question No 4. is b**

---

**Answer for Question No 5. is d**

---

**Answer for Question No 6. is c**

---

**Answer for Question No 7. is c**

---

**Answer for Question No 8. is a**

---

**Answer for Question No 9. is c**

---

**Answer for Question No 10. is d**

---

**Answer for Question No 11. is c**

---

**Answer for Question No 12. is a**

---

**Answer for Question No 13. is d**

---

**Answer for Question No 14. is a**

---

**Answer for Question No 15. is a**

---

**Answer for Question No 16. is b**

---

**Answer for Question No 17. is a**

---

**Answer for Question No 18. is d**

---

**Answer for Question No 19. is a**

---

**Answer for Question No 20. is d**

---

**Answer for Question No 21. is b**

---

**Answer for Question No 22. is d**

---

**Answer for Question No 23. is b**

---

**Answer for Question No 24. is c**

---

**Answer for Question No 25. is b**

---

**Answer for Question No 26. is b**

---

**Answer for Question No 27. is c**

---

**Answer for Question No 28. is c**

---

**Answer for Question No 29. is b**

---

**Answer for Question No 30. is d**

---

**Answer for Question No 31. is d**

---

**Answer for Question No 32. is a**

---

**Answer for Question No 33. is d**

---

**Answer for Question No 34. is b**

---

**Answer for Question No 35. is b**

---

**Answer for Question No 36. is c**

---

**Answer for Question No 37. is b**

---

**Answer for Question No 38. is c**

---

**Answer for Question No 39. is a**

---

**Answer for Question No 40. is d**

---

**Answer for Question No 41. is b**

---

**Answer for Question No 42. is d**

---

**Answer for Question No 43. is b**

---

**Answer for Question No 44. is a**

---

**Answer for Question No 45. is b**

---

**Answer for Question No 46. is d**

---

**Answer for Question No 47. is b**

---

**Answer for Question No 48. is b**

---

**Answer for Question No 49. is a**

---

**Answer for Question No 50. is d**

---

**Answer for Question No 51. is a**

---

**Answer for Question No 52. is a**

---

**Answer for Question No 53. is d**

---

**Answer for Question No 54. is d**

---

**Answer for Question No 55. is c**

---

**Answer for Question No 56. is a**

---

**Answer for Question No 57. is a**

---

**Answer for Question No 58. is d**

---

**Answer for Question No 59. is a**

---

**Answer for Question No 60. is a**

---

Total number of questions : 60

11678\_EMBEDDED SYSTEM AND INTERNET OF THINGS

Time : 1hr

Max Marks : 50

N.B

- 1) All questions are Multiple Choice Questions having single correct option.
  - 2) Attempt any 50 questions out of 60.
  - 3) Use of calculator is allowed.
  - 4) Each question carries 1 Mark.
  - 5) Specially abled students are allowed 20 minutes extra for examination.
  - 6) Do not use pencils to darken answer.
  - 7) Use only black/blue ball point pen to darken the appropriate circle.
  - 8) No change will be allowed once the answer is marked on OMR Sheet.
  - 9) Rough work shall not be done on OMR sheet or on question paper.
  - 10) Darken ONLY ONE CIRCLE for each answer.
- 

**Q.no 1. How many can you create in AWS by default**

- A : 1
- B : 10
- C : 100
- D : 110

**Q.no 2. ANSI/ISA-95 standard used for**

- A : Reduce cost, errors and risk with production process
- B : Reduce errors and risk with production process
- C : Reduce cost and risk with production process
- D : Reduce cost, and errors and with production process

**Q.no 3. \_\_\_\_\_ are integrated Antenna for long range communication**

A : BC241

B : BC154

C : BC144

D : BC118

**Q.no 4. What are the parameters that are default values?**

A : a) Port\_Name and Bits

B : b) Speed and Port\_Names

C : c) Speed and Parity

D : d) Stop bit and Flow Control

**Q.no 5. What is the full form of SCADA?**

A : a) Supervisory Control and Document Acquisition

B : b) Supervisory Control and Data Acquisition

C : c) Supervisory Column and Data Assessment

D : d) Supervisory Column and Data Assessment

**Q.no 6. Which is the last layer in the WoT architecture?**

A : Composition Layer

B : Sharing Layer

C : Findability Layer

D : Accessibility Layer

**Q.no 7. What is the Ethernet/LAN cable used in RPi?**

A : a) Cat5

B : b) Cat5e

C : c) Cat6

D : d) RJ45

**Q.no 8. SOAP stands for-**



A : Simple Object Access Protocol

B : Server Object Access Protocol

C : Simple Orientation Across Protocol

D : Server Orientation Across Protocol

**Q.no 9. Which of the following is not the component of IoT Endpoint**

A : Sensor

B : Gateway

C : Communication Module

D : MCU

**Q.no 10. WAMP stands for \_\_\_\_\_**

A : Web Analysed Messaging Protocol

B : Web Authorised Messaging Prototcol

C : Web Application Messaging Protocol

D : Web Appliance Messaging Protocol

**Q.no 11. Amazon EC2 configuration determined by ?**

A : CPU

B : memory & storage

C : networking capability

D : All of the mentioned

**Q.no 12. The father of IoT.**

A : a) Kevin Atrun

B : b) Kevin Atrhur

C : c) Kevin Ashton

D : d) Kevin Thomas

**Q.no 13. In Core of SODA which standard is based on XML encodings**

A : DDL

B : XML

C : SOA

D : SODA

**Q.no 14. How many layers contain by WoT architecture ?**

A : 3

B : 4

C : 5

D : 6

**Q.no 15. How many categories of storage devices broadly exist in cloud?**

A : 1

B : 2

C : 3

D : 4

**Q.no 16. Amazon DynamoDB is**

A : Relational database in cloud

B : No-SQL database service

C : Hierarchical Databases

D : Distributed Databases

**Q.no 17. Making the smaller and smaller things have the ability to connect and interact.**

A : a) Micro Tech

B : b) Smart tech

C : c) Nano tech

D : d) RFID

**Q.no 18. SOA stands for .....**

A : Solution Oriented Architecture

B : Sector Oriented Architecture

C : Source Oriented Architecture

D : Service Oriented Architecture

**Q.no 19. Wi-Fi stands for?**

A : a) Wireless fidelity

B : b) Wireless Flexibility

C : c) Wide Fidelity

D : d) WAN Flexibility

**Q.no 20. Which one is the First step in IOT Platforms Design Methodology**

A : Process Model Specification

B : Purpose and Requirement

C : Domain Model Specification

D : Service Specification

**Q.no 21. Which is not a open-source SaaS (Software-as-a-Service) project?**

A : Ubuntu

B : Microsoft Office 365

C : openSIS

D : Zimbra

**Q.no 22. In M2M/ IoT protocols the payload and header is very \_\_\_\_\_**

A : Small

B : Big

C : Same as Internet Protocol

D : Moderate

**Q.no 23. \_\_\_\_ is virtual server platform that allows users to create and run virtual machines on Amazon's server farm.**

A : EC2

B : Azure

C : EC5

D : None of the above

**Q.no 24. RFID stands for?**

A : Random frequency identification

B : Radio frequency identification

C : Random frequency information

D : Radio frequency information

**Q.no 25. MQTT protocol is based on**

A : Client-Server Architecture

B : Publish-Subscribe Architecture

C : Both of the above

D : Peer to peer Architecture

**Q.no 26. Communication model which involves brokers is called as \_\_\_\_\_**

A : Request Response model

B : Publish Subscribe model

C : Push Pull model

D : Exclusive Pair model

**Q.no 27. .... Middleware include all enterprise middleware, B2B, EAI, multi-tenant App servers, etc.**

A : SaaS

B : IaaS

C : FaaS

D : PaaS

**Q.no 28. \_\_\_\_ manages metadata of IoT services**

A : Power

B : Controller

C : Scheduler

D : Package

**Q.no 29. Which one is IoT Communication Models**

A : Request-Response

B : Publish-Subscribe

C : All of Above

D : None Of Above

**Q.no 30. What does WoT do ?**

**(I) Re-invent completely new standards.**

**(II) Reuses existing and well known standards.**

A : ONLY (I)

B : ONLY (II)

C : Both (I) and (II)

D : Neither (I) nor (II)

**Q.no 31. which statement is True about CISC**

A : Single Clock Cycle

B : Highly pipelined

C : Fixed Format Instruction

D : None of Above

**Q.no 32. Which of the following is not the component of a SCADA system?**

A : Database server

B : I/O system

C : PLC controller

D : Sparger controller

**Q.no 33. Application Development in IoT Design Methodology is ----- Step**

A : First

B : Second

C : Third

D : Last

**Q.no 34. In Unified standards .....combination of data format and exchange protocol is the foundation pillar of WWW**

A : POPMAIL

B : HTML/HTTPS

C : HTML/HTTP

D : SMTP

**Q.no 35. How many levels are present in a complex SCADA system?**

A : a) 3 – levels

B : b) 5 – levels

C : c) 4 – levels

D : d) 6 – levels

**Q.no 36. Private IoT, Public IoT, Community IoT and Hybrid IoT are four ..... models of IoT.**

A : deployment

B : characteristic

C : solution

D : service

**Q.no 37. WAMP follows \_\_\_\_\_ approach.**

A : Connectionless

B : Connection-Oriented

C : OTA

D : None of the above

**Q.no 38. Which one is not Advanced features of ARM**

A : Thumb

B : Cache

C : Fast Multiplier

D : None Of Above

**Q.no 39. OSGi (Open services Gateway initiative framework) is used for**

A : Module system and service platform , component deployment remotely

B : Standard internet protocol

C : Application life cycle management

D : Option 1 and 3

**Q.no 40. Which database engines are supported by Amazon RDS ?**

A : PostgreSQL

B : MariaDB

C : Oracle

D : All of the above

**Q.no 41. The mango open source software platform for IOT and M2M has natural fit between**

A : CORBA &DOM

B : POJO & JSON

C : JASON &M2M

D : SOAP & POJO

**Q.no 42. \_\_\_\_\_ is the exampe of decentralised application layer protocol**

A : XMPP

B : HTTP

C : CoAP

D : MQTT

**Q.no 43. What is the long form of OMTP, which was a forum crated by mobile network operators to discuss standards with manufacturers of cell phones and other mobile devices.**

A : Open Mobile Transport Protocol

B : Open Middleware Terminal Platform

C : Open Mobile Terminal Platform

D : Open Middleware Transport Protocol

**Q.no 44. Which one is not True regarding WebSocketAPIs**

A : bi-directional

B : Full duplex

C : Not Secure

D : Exclusive Pair Communication

**Q.no 45. Hybrid IoT is .....**

A : made available to general public or a large industry group.

B : shared by several organizations and supports a specific community that has shared concerns.

C : operated solely for an organization.

D : an integrated composition of two or more of the IoT systems (private, community, or public)

**Q.no 46. In SCADA and RFID the OPC stands for**

A : Object Process Control

B : Object Linking and Embedding for Process Control

C : Object Controlling Process Control

D : Object Identifying Process Control

**Q.no 47. In unauthorized access.....should be done before granting the access rights**

A : Value-based verification



B : Identity-based verification

C : Name-based verification

D : Number-based verification

**Q.no 48. Which of the following protocol is based on REST architecture**

A : a) HTTP

B : b) CoAP

C : c) Both a and b

D : d) MQTT

**Q.no 49. What should be frequency of soil for hand gesturing functions ?**

A : 50 Hz

B : 60 Hz

C : 35 Hz

D : 40 Hz

**Q.no 50. This protocol is lightweight in nature and is ideal for connecting small devices to constrained networks**

A : MQTT

B : CoAP

C : IPv4

D : IPv6

**Q.no 51. Which of the following describes a message-passing taxonomy for a component-based architecture that provides services to clients upon demand?**

A : SOA

B : EBS

C : GEC

D : Option 2 and 3

**Q.no 52. The cloud middleware consists of two kinds of middleware.....**

A : IaaS and PaaS

B : IaaS and SaaS

C : SaaS and PaaS

D : SaaS and BaaS

**Q.no 53. IoT level \_\_\_\_\_ systems are suitable for solutions where multiple nodes are required, the data involved is big and the analysis requirements are computationally intensive**

A : Level1

B : Level 2

C : Level 3

D : Level 4

**Q.no 54. Find the correct statement with respect to SOA**

**I) It describes a standard method for requesting services from distributed components and managing the results**

**II) SOA provides the translation and management layer in an architecture that removes the barrier for a client obtaining desired services**

**III) With SOA, clients and components can be written in different languages and can use multiple messaging protocols**

A : Option I and II

B : Option I,II and III

C : Only Option I

D : Only Option III

**Q.no 55. Which if the following is Light waight protocol used of IoT Applications**

A : a) MQTT

B : b) HTTP

C : c) WebSocket

D : d) All of the above

**Q.no 56. \_\_\_\_\_ is an attack which forces an end user to execute unwanted actions on a web application in which he/she is currently authenticated.**

A : Cross-site scoring scripting

B : Cross-site request forgery

C : Two-factor authentication

D : Cross-site scripting

**Q.no 57. Main components of USN(Ubiquitous Sensor Networks) are**

**I] USN applications and services platform**

**II] Network infrastructure**

**III]USN gateway**

A : Only III

B : Option I and III

C : Option I not Option III

D : Option I, II and III

**Q.no 58. Private cloud, public cloud, community cloud and hybrid cloud are four ..... models of cloud.**

A : deployment

B : characteristic

C : solution

D : service

**Q.no 59. REST follows \_\_\_\_\_communication model**

A : Request Response model

B : Publish Subscribe model

C : Push Pull model

D : Exclusive Pair model

**Q.no 60. HTTP resources are located by**

A : unique resource locator

B : unique resource identifier

C : none of the mentioned

D : uniform resource identifier

---

**Answer for Question No 1. is c**

---

**Answer for Question No 2. is a**

---

**Answer for Question No 3. is d**

---

**Answer for Question No 4. is b**

---

**Answer for Question No 5. is b**

---

**Answer for Question No 6. is a**

---

**Answer for Question No 7. is d**

---

**Answer for Question No 8. is a**

---

**Answer for Question No 9. is b**

---

**Answer for Question No 10. is c**

---

**Answer for Question No 11. is d**

---

**Answer for Question No 12. is c**

---

**Answer for Question No 13. is a**

---

**Answer for Question No 14. is b**

---

**Answer for Question No 15. is b**

---

**Answer for Question No 16. is b**

---

---

**Answer for Question No 17. is c**

---

**Answer for Question No 18. is d**

---

**Answer for Question No 19. is a**

---

**Answer for Question No 20. is b**

---

**Answer for Question No 21. is b**

---

**Answer for Question No 22. is a**

---

**Answer for Question No 23. is a**

---

**Answer for Question No 24. is b**

---

**Answer for Question No 25. is b**

---

**Answer for Question No 26. is b**

---

**Answer for Question No 27. is d**

---

**Answer for Question No 28. is c**

---

**Answer for Question No 29. is c**

---

**Answer for Question No 30. is b**

---

**Answer for Question No 31. is d**

---

**Answer for Question No 32. is d**

---

**Answer for Question No 33. is d**

---

**Answer for Question No 34. is c**

---

**Answer for Question No 35. is c**

---

**Answer for Question No 36. is a**

---

**Answer for Question No 37. is b**

---

**Answer for Question No 38. is d**

---

**Answer for Question No 39. is d**

---

**Answer for Question No 40. is d**

---

**Answer for Question No 41. is c**

---

**Answer for Question No 42. is a**

---

**Answer for Question No 43. is c**

---

**Answer for Question No 44. is c**

---

**Answer for Question No 45. is d**

---

**Answer for Question No 46. is b**

---

**Answer for Question No 47. is b**

---

**Answer for Question No 48. is c**

---

**Answer for Question No 49. is b**

---

**Answer for Question No 50. is a**

---

**Answer for Question No 51. is a**

---

**Answer for Question No 52. is a**

---

**Answer for Question No 53. is d**

---

**Answer for Question No 54. is b**

---

**Answer for Question No 55. is a**

---

**Answer for Question No 56. is d**

---

**Answer for Question No 57. is d**

---

**Answer for Question No 58. is a**

---

**Answer for Question No 59. is a**

---

**Answer for Question No 60. is d**

---

Total number of questions : 60

11678\_EMBEDDED SYSTEM AND INTERNET OF THINGS

Time : 1hr

Max Marks : 50

N.B

- 1) All questions are Multiple Choice Questions having single correct option.
  - 2) Attempt any 50 questions out of 60.
  - 3) Use of calculator is allowed.
  - 4) Each question carries 1 Mark.
  - 5) Specially abled students are allowed 20 minutes extra for examination.
  - 6) Do not use pencils to darken answer.
  - 7) Use only black/blue ball point pen to darken the appropriate circle.
  - 8) No change will be allowed once the answer is marked on OMR Sheet.
  - 9) Rough work shall not be done on OMR sheet or on question paper.
  - 10) Darken ONLY ONE CIRCLE for each answer.
- 

**Q.no 1. Unique ID for each device in skynet is \_\_\_\_\_**

- A : SSID
- B : UID
- C : UUID
- D : ID

**Q.no 2. Which amongst the following is fastest Amazon Web Service ?**

- A : Amazon RDS
- B : Amazon EC2
- C : Amazon S3
- D : Amazon DynamoDB

**Q.no 3. Xivety is available as \_\_\_\_\_**



A : IaaS

B : SaaS

C : CaaS

D : PaaS

**Q.no 4. Which protocol is an open standard**

A : CoAP

B : MQTT

C : XMPP

D : HTTP

**Q.no 5. Each Functional Group either provides functionalities for interacting with instances of concepts defined in the ----- or provides information related to these concepts.**

A : System Model

B : Network Model

C : Domain Model

D : Basic Model

**Q.no 6. Which of the following system does not provision storage to most users?**

A : PaaS

B : IaaS

C : CaaS

D : SaaS

**Q.no 7. MQTT stands for \_\_\_\_\_**

A : a) MQ Telemetry Things

B : b) MQ Transport Telemetry

C : c) MQ Transport Things

D : d) MQ Telemetry Transport

**Q.no 8. M2M protocol standards activities include..**

A : M2MXML

B : SDN

C : NFV

D : SNMP

**Q.no 9. Which one is the Last step in IOT Platforms Design Methodology**

A : Application Development

B : Purpose and Requirement

C : Domain Model Specification

D : Service Specification

**Q.no 10. SODA all stands for-**

A : Service oriented data architecture

B : Service oriented device authentication

C : Service oriented device architecture

D : Service oriented device aapplication

**Q.no 11. Gateway softwate should be smart enough to handle \_\_\_\_**

A : GPS

B : Message

C : Logging

D : Sensors

**Q.no 12. Which protocol is lightweight?**

A : a) MQTT

B : b) HTTP

C : c) CoAP

D : d) SPI

**Q.no 13. AMIs are operating system running on \_\_\_\_ virtualisation hypervisor**

A : Yen

B : Xen

C : Ben

D : Multi-Factor Authentication

**Q.no 14. Which layer is responsible for WAMP communication ?**

A : Application

B : Physical

C : Transport

D : Session

**Q.no 15. Several instructions execution simultaneously in?**

A : a) processing

B : b) parallel processing

C : c) serial processing

D : d) multitasking

**Q.no 16. ANSI/ISA-95 standard used for**

A : Reduce cost, errors and risk with production process

B : Reduce errors and risk with production process

C : Reduce cost and risk with production process

D : Reduce cost, and errors and with production process

**Q.no 17. The process of identifying assets and threats in an organisation is known as**

A : Threat Modeling

B : Security Auditing

C : Security Planning

D : Firewalling

**Q.no 18. MQTT is \_\_\_\_\_ protocol.**

A : a) Machine to Machine

B : b) Internet of Things

C : c) Machine to Machine and Internet of Things

D : d) Machine Things

**Q.no 19. What kind of electronic document contains a public key?**

A : PIN

B : Digital certificate

C : PAN

D : Biometrics

**Q.no 20. How many layers contain by WoT architecture ?**

A : 3

B : 4

C : 5

D : 6

**Q.no 21. Django interaction with application takes place with \_\_\_\_\_**

A : Template

B : model

C : view

D : Service

**Q.no 22. The sixth step in the IoT design methodology is to define the ----- for the system.**

A : IoT level

B : IOT BASICS

C : IOT PAYLOAD

D : IOT CHECKSUM

**Q.no 23. Which layer/layers of the OSI model does Web of Things (WoT) deals with ?**

A : Application Layer

B : Network Layer

C : Transport Layer

D : Every layer

**Q.no 24. Which is the last layer in the WoT architecture?**

A : Composition Layer

B : Sharing Layer

C : Findability Layer

D : Accessibility Layer

**Q.no 25. In 2008, which company launched the PaaS on-demand development platform & become a new pillar of cloud computing?**

A : Salesforce

B : The force.com

C : Amazon

D : Cloudera

**Q.no 26. Standard port number for secure MQTT is \_\_\_\_\_**

A : 1883

B : 8000

C : 8883

D : 8888

**Q.no 27. Two Pillars of the Web are**

**I ] The protocol**

**II] The software**

**III] Platform Middleware**

**IV] Business Intelligence**

- A : Option I and II
- B : Option II and III
- C : Option I not III
- D : Option I not IV

**Q.no 28. What are the essential tight constraint/s related to the design metrics of an embedded system**

- A : Ability to fit on a single chip
- B : Low power consumption
- C : Fast data processing for real-time operations
- D : All of the above

**Q.no 29. Goal of SWE is creation of web-based sensor networks to make all sensors and repositories of**

- A : Sensor data discoverable and accessible
- B : Sensor data applicable, controllable
- C : Providing connectivity
- D : Option 1 and 2

**Q.no 30. Last step in IoT Design Methodology is**

- A : IoT Level Specification
- B : Functional View Specification
- C : Operational View Specification
- D : None of Above

**Q.no 31. Some communication devices in IoT**

- A : Sensors
- B : Actuators
- C : RFID Tags
- D : All of Above

**Q.no 32. Hybrid IoT is .....**

A : made available to general public or a large industry group.

B : shared by several organizations and supports a specific community that has shared concerns.

C : operated solely for an organization.

D : an integrated composition of two or more of the IoT systems (private, community, or public)

**Q.no 33. .... supports virtualization creates virtual versions of the resources like servers, storage and OS.**

A : Grid Computing

B : Data Mining

C : Cloud Computing

D : Business Intelligence

**Q.no 34. .... Middleware include all Grid middleware such as MSV Cluster middleware, SSV and schedulers, etc.**

A : SaaS

B : IaaS

C : FaaS

D : PaaS

**Q.no 35. Which one is not a type Of RTOS**

A : 1)Hard RTOS

B : Soft RTOS

C : Firm RTOS

D : Embedded RTOS

**Q.no 36. Amazon EC2 data is stored using \_\_\_\_**

A : EBS

B : ECS

C : Cloud

D : Database

**Q.no 37. Which of the following is a structured data store that supports indexing and data queries to both EC2 and S3?**

A : CloudWatch

B : Amazon SimpleDB

C : Amazon Cloudfront

D : All of the mentioned

**Q.no 38. \_\_\_\_ manages metadata of IoT services**

A : Power

B : Controller

C : Scheduler

D : Package

**Q.no 39. Community IoT is .....**

A : made available to general public or a large industry group.

B : shared by several organizations and supports a specific community that has shared concerns.

C : operated solely for an organization.

D : an integrated composition of two or more of the IoT systems (private, community, or public)

**Q.no 40. Process Specification in IOT design Methodology -----**

A : Defines the IoT level  
for the system

B : Shows the integration of the  
devices and components.

C : Defines the use cases of the IoT system are  
formally described based on and derived from the purpose and  
requirement specifications.

D : None of above



**Q.no 41. In unauthorized access.....should be done before granting the access rights**

- A : Value-based verification
- B : Identity-based verification
- C : Name-based verification
- D : Number-based verification

**Q.no 42. Which statement is True for Real Time Operating System (RTOS):**

- A : Act as interface between hardware & Application software.
- B : RTOS defines the way the system work.
- C : Which supervise the application software.
- D : All of Above

**Q.no 43. Which database engines are supported by Amazon RDS ?**

- A : PostgreSQL
- B : MariaDB
- C : Oracle
- D : All of the above

**Q.no 44. ZigBee is based on which of the following standard**

- A : a) IEEE 802.15.4
- B : b) IEEE 802.5
- C : c) IEEE 802.4.13
- D : d) Both a and b

**Q.no 45. SOAP is a protocol through which two computer communicates by sharing ----- document**

- A : XML
- B : HTML
- C : JAVA

D : API

**Q.no 46. What should be frequency of soil for hand gesturing functions ?**

A : 50 Hz

B : 60 Hz

C : 35 Hz

D : 40 Hz

**Q.no 47. Key elements of ETSI M2M architecture are**

**I] M2M device & M2M gateway**

**II] M2M area network & M2M communication network**

**III] M2M application server**

A : Option I , II and III

B : Option I and II

C : Option II and III

D : Option III

**Q.no 48. In Unified standards .....combination of data format and exchange protocol is the foundation pillar of WWW**

A : POPMAIL

B : HTML/HTTPS

C : HTML/HTTP

D : SMTP

**Q.no 49. which of protocol provide Full-Duplex communication**

A : a) WebSocket

B : b) HTTP

C : c) MQTT

D : d) CoAP

**Q.no 50. OSGi (Open services Gateway initiative framework) is used for**

A : Module system and service platform , component deployment remotely

B : Standard internet protocol

C : Application life cycle management

D : Option 1 and 3

**Q.no 51. Private cloud, public cloud, community cloud and hybrid cloud are four ..... models of cloud.**

A : deployment

B : characteristic

C : solution

D : service

**Q.no 52. Exclusive pair communication model can be best described as \_\_\_\_\_**

A : Bidirectional , simplex

B : Birectional , full duplex

C : Unidirectional , simplex

D : Unidirectional , full duplex

**Q.no 53. \_\_\_\_\_is not an IoT application layer protocol**

A : XMPP

B : TCP

C : CoAP

D : MQTT

**Q.no 54. From following which one is not fit for IOT Level**

A : IOT LEVEL 1

B : IOT LEVEL 2

C : IOT LEVEL 3

D : IOT LEVEL 11

**Q.no 55. IoT level \_\_\_\_\_ systems are suitable for solutions where multiple nodes are required, the data involved is big and the analysis requirements are computationally intensive**

A : Level1

B : Level 2

C : Level 3

D : Level 4

**Q.no 56. Connecting heterogeneous devices that makes the integration across systems and applications much simpler is achieved by**

A : IoT

B : WoT

C : Both (a) and (b)

D : Neither (a) nor (b).

**Q.no 57. \_\_\_\_\_ is an attack which forces an end user to execute unwanted actions on a web application in which he/she is currently authenticated.**

A : Cross-site scoring scripting

B : Cross-site request forgery

C : Two-factor authentication

D : Cross-site scripting

**Q.no 58. CoAP provides which of the following requirements?**

A : Multicast support and simplicity

B : Low overhead and multicast support

C : Simplicity and low overhead

D : Multicast support, Low over head, and simplicity

**Q.no 59. APS Provides services necessary for.....**

A : application Management and the ZigBee layers

B : application objects(endpoints) and the ZigBee device object (ZDO)

C : application Management and security management

D : Application Management

**Q.no 60. Zigbee architectures consist of which the following section**

A : Physical

B : ZigBee device

C : Transport

D : IEEE 802.15.4

---

**Answer for Question No 1. is c**

---

**Answer for Question No 2. is b**

---

**Answer for Question No 3. is d**

---

**Answer for Question No 4. is b**

---

**Answer for Question No 5. is c**

---

**Answer for Question No 6. is b**

---

**Answer for Question No 7. is d**

---

**Answer for Question No 8. is a**

---

**Answer for Question No 9. is a**

---

**Answer for Question No 10. is c**

---

**Answer for Question No 11. is c**

---

**Answer for Question No 12. is a**

---

**Answer for Question No 13. is b**

---

**Answer for Question No 14. is c**

---

**Answer for Question No 15. is b**

---

**Answer for Question No 16. is a**

---

**Answer for Question No 17. is a**

---

**Answer for Question No 18. is c**

---

**Answer for Question No 19. is b**

---

**Answer for Question No 20. is b**

---

**Answer for Question No 21. is b**

---

**Answer for Question No 22. is a**

---

**Answer for Question No 23. is a**

---

**Answer for Question No 24. is a**

---

**Answer for Question No 25. is b**

---

**Answer for Question No 26. is c**

---

**Answer for Question No 27. is a**

---

**Answer for Question No 28. is d**

---

**Answer for Question No 29. is d**

---

**Answer for Question No 30. is d**

---

**Answer for Question No 31. is d**

---

**Answer for Question No 32. is d**

---

**Answer for Question No 33. is c**

---

**Answer for Question No 34. is b**

---

**Answer for Question No 35. is d**

---

**Answer for Question No 36. is a**

---

**Answer for Question No 37. is b**

---

**Answer for Question No 38. is c**

---

**Answer for Question No 39. is b**

---

**Answer for Question No 40. is c**

---

**Answer for Question No 41. is b**

---

**Answer for Question No 42. is d**

---

**Answer for Question No 43. is d**

---

**Answer for Question No 44. is a**

---

**Answer for Question No 45. is a**

---

**Answer for Question No 46. is b**

---

**Answer for Question No 47. is a**

---

**Answer for Question No 48. is c**

---



**Answer for Question No 49. is a**

---

**Answer for Question No 50. is d**

---

**Answer for Question No 51. is a**

---

**Answer for Question No 52. is b**

---

**Answer for Question No 53. is b**

---

**Answer for Question No 54. is d**

---

**Answer for Question No 55. is d**

---

**Answer for Question No 56. is b**

---

**Answer for Question No 57. is d**

---

**Answer for Question No 58. is d**

---

**Answer for Question No 59. is d**

---

**Answer for Question No 60. is d**

---

Total number of questions : 60

11678\_EMBEDDED SYSTEM AND INTERNET OF THINGS

Time : 1hr

Max Marks : 50

N.B

- 1) All questions are Multiple Choice Questions having single correct option.
  - 2) Attempt any 50 questions out of 60.
  - 3) Use of calculator is allowed.
  - 4) Each question carries 1 Mark.
  - 5) Specially abled students are allowed 20 minutes extra for examination.
  - 6) Do not use pencils to darken answer.
  - 7) Use only black/blue ball point pen to darken the appropriate circle.
  - 8) No change will be allowed once the answer is marked on OMR Sheet.
  - 9) Rough work shall not be done on OMR sheet or on question paper.
  - 10) Darken ONLY ONE CIRCLE for each answer.
- 

**Q.no 1. Which of the following is storage data interchange interface for stored data objects?**

- A : OCC
- B : OCCI
- C : OCMI
- D : All of the above

**Q.no 2. The object in IoT will be empowered by \_\_\_\_\_**

- A : Network
- B : Cloud
- C : Devices
- D : Connectivity

**Q.no 3. The channel between two communication nodes is \_\_\_\_**

- A : Session
- B : Event
- C : Transport
- D : None of the above

**Q.no 4. Which of the following instance is used by default in AMI?**

- A : High-Memory Quadruple Extra Large Instance
- B : Small Instance
- C : Micro Instance
- D : High-CPU Extra Large Instance

**Q.no 5. IPv4 is \_\_\_\_\_ bit address**

- A : a) 24
- B : b) 32
- C : c) 64
- D : d) 128

**Q.no 6. What are the parameters that are default values?**

- A : a) Port\_Name and Bits
- B : b) Speed and Port\_Names
- C : c) Speed and Parity
- D : d) Stop bit and Flow Control

**Q.no 7. Which statement is wrong regarding Service Specifications**

- A : service inputs/output
- B : service endpoints
- C : Network Security
- D : Service Preconditions

**Q.no 8. This Process of identifying any individual is called as.**

- A : Auditing
- B : Authorisation
- C : Authentication
- D : Accounting

**Q.no 9. Operational View Specification consist of**

- A : service hosting options
- B : storage options
- C : device options
- D : All of above

**Q.no 10. The entities, objects and concepts defined in the Domain Model Specification**

- A : Physical Entity
- B : Virtual Entity
- C : Device
- D : All of above

**Q.no 11. when you publish a message \_\_\_\_ is automatically created.**

- A : Client
- B : Server
- C : Process
- D : Batch

**Q.no 12. How many layers contain by WoT architecture ?**

- A : 3
- B : 4
- C : 5
- D : 6

**Q.no 13. \_\_\_\_\_ allows us to control electronic components**

A : RESTful API

B : WebSocket API

C : HTTP

D : MQTT

**Q.no 14. \_\_\_\_\_ are integrated Antenna for long range communication**

A : BC241

B : BC154

C : BC144

D : BC118

**Q.no 15. Which is true about model view controller architecture of Django**

A : It represents by a database

B : It is user interface that you see in browser

C : It connects view and model together

D : None of the above

**Q.no 16. In 1999, Marc Benioff founded a company, which pioneered the multi-tenant SaaS model, a new application-delivering mechanism. Which company is that?**

A : Salesforce

B : Oracle Siebel

C : SAP CRM

D : Infusionsoft

**Q.no 17. Things in IoT refers to \_\_\_\_\_**

A : General device

B : Information

C : IoT devices

D : Object

**Q.no 18. Which of the following provide access for developers to charge Amazon's customer for their purchases ?**

A : FWS

B : FAS

C : FPS

D : All of the mentioned

**Q.no 19. Which amongst the following is fastest Amazon Web Service ?**

A : Amazon RDS

B : Amazon EC2

C : Amazon S3

D : Amazon DynamoDB

**Q.no 20. Which one is the First step in IOT Platforms Design Methodology**

A : Process Model Specification

B : Purpose and Requirement

C : Domain Model Specification

D : Service Specification

**Q.no 21. Each Functional Group either provides functionalities for interacting with instances of concepts defined in the ----- or provides information related to these concepts.**

A : System Model

B : Network Model

C : Domain Model

D : Basic Model

**Q.no 22. RFID stands for?**

A : Random frequency identification

B : Radio frequency identification

C : Random frequency information

D : Radio frequency information

**Q.no 23. Operational View Specification is**

A : Integration of the devices

B : Integration of the Components

C : Integration of Applications

D : None of above

**Q.no 24. Amazon S3 stands for**

A : Secure storage service

B : Session storage service

C : Simple storage service

D : Sample storage service

**Q.no 25. The process of converting data into a format that can not be read by another user**

A : Registering

B : Locking

C : Encryption

D : Keying

**Q.no 26. WAMP follows \_\_\_\_ communication model**

A : Push pull model

B : Publish subscribe model

C : Request Response model

D : Exclusive pair model

**Q.no 27. \_\_\_\_\_ are called as front end of IoT device**

A : Sensors

B : Gateways

C : Processors

D : Applications

**Q.no 28. Which of the following is the heart of a SCADA system?**

A : a) PLC

B : b) HMI

C : c) Alarm task

D : d) I/O task

**Q.no 29. Which of the following is the vulnerabilities of IoT**

A : MALC

B : DDOS

C : DOSD

D : SSOD

**Q.no 30. Which one of the following is the Zigbees operating mode?**

A : Beacon

B : Base

C : WiFi

D : Zigbee

**Q.no 31. Raspberry Pi Runs on customized Debian Linux called -----**

A : UNIX

B : Raspbian OS

C : MAC

D : Windows

**Q.no 32. Which database engines are supported by Amazon RDS ?**

A : PostgreSQL



B : MariaDB

C : Oracle

D : All of the above

**Q.no 33. Two Pillars of the Web are**

**I ] The protocol**

**II] The software**

**III] Platform Middleware**

**IV] Business Intelligence**

A : Option I and II

B : Option II and III

C : Option I not III

D : Option I not IV

**Q.no 34. A smart object is defined by IPSO**

A : Internet Protocol Smart Object

B : Internet Protocol Sensor Object

C : International Protocol Smart Object

D : International Protocol Sensor Object

**Q.no 35. Standard port number for secure MQTT is \_\_\_\_\_**

A : 1883

B : 8000

C : 8883

D : 8888

**Q.no 36. WiFi uses how much frequency ?**

A : 2.2 GHz

B : 3 GHz

C : 3.5 GHz

D : 2.4 GHz

**Q.no 37. Django forms and classes are created using \_\_\_\_\_**

A : Template

B : view

C : Model

D : Django Services

**Q.no 38. Mention which markup language can be used in restful web api?**

A : HTML

B : C

C : JSON and XML

D : JAVA

**Q.no 39. WAMP follows \_\_\_\_\_ approach.**

A : Connectionless

B : Connection-Oriented

C : OTA

D : None of the above

**Q.no 40. What bit processor is used in Pi 3?**

A : a) 64-bit

B : b) 32-bit

C : c) 128-bit

D : d) Both 64 and 32 bit

**Q.no 41. Application Development in IoT Design Methodology is ----- Step**

A : First

B : Second

C : Third

D : Last

**Q.no 42. Communication model which involves brokers is called as \_\_\_\_\_**

A : Request Response model

B : Publish Subscribe model

C : Push Pull model

D : Exclusive Pair model

**Q.no 43. .... supports virtualization creates virtual versions of the resources like servers, storage and OS.**

A : Grid Computing

B : Data Mining

C : Cloud Computing

D : Business Intelligence

**Q.no 44. Which of there following wireless technology provide Mesh Network architecture in easiest way**

A : a) Bluetooth

B : b) ZigBee

C : c) Wi-Fi

D : d) None of the above

**Q.no 45. Which one is not True regarding WebSocketAPIs**

A : bi-directional

B : Full duplex

C : Not Secure

D : Exclusive Pair Communication

**Q.no 46. Which of the following layers are defined by the ZigBee stack?**

A : Transport layer

B : Physical layer.

C : Application Support sub-layer.

D : Medium Access layer

**Q.no 47. Gateway provides the connection between \_\_\_\_ and \_\_\_\_**

A : Cloud and controller

B : Network and Cloud

C : Network and Controller

D : Controller and Device

**Q.no 48. \_\_\_\_\_ is the instruction set used by ARM7**

A : 16-bit instruction set

B : 32-bit instruction set

C : 8-bit instruction set

D : 64 Bit instruction set

**Q.no 49. What are the distributions supported by raspberry Pi?**

A : a) Arch Linux

B : b) Debain

C : c) Fedora Remix

D : d) Arch Linux, Debain, and Fedora Remix

**Q.no 50. Which of the following is not the component of a SCADA system?**

A : Database server

B : I/O system

C : PLC controller

D : Sparger controller

**Q.no 51. The technological foundation of cloud computing is distributed computing based on communication networks using.....**

A : the internet of things

B : Google servers farms and Google Map

C : Amazon Web Service

D : cluster of workstations and networks of workstations

**Q.no 52. which of the following are IoT Platforms**

A : a) AWS IoT

B : b) Microsoft Azure IoT

C : c) PTC ThingWorx

D : d) All of the above

**Q.no 53. For.....Secure, lightweight, and efficient key exchange mechanism is required**

A : Data Availability

B : Trust Management

C : Data Confidentiality

D : Secure Storage

**Q.no 54. \_\_\_\_\_ is an attack which forces an end user to execute unwanted actions on a web application in which he/she is currently authenticated.**

A : Cross-site scripting

B : Cross-site request forgery

C : Two-factor authentication

D : Cross-site scripting

**Q.no 55. WOT is**

**I] An applications' platform**

**II] Explores the layer top of connectivity with things**

**III] fast prototyping, data integration and interaction with objects**

A : Only III

B : Option I and III

C : Option I not III

D : Option I, II and III

**Q.no 56. Which of the following specifies a set of media access control (MAC) and physical layer specifications for implementing WLANs?**

A : IEEE 802.16

B : IEEE 802.3

C : IEEE 802.11

D : IEEE 802.15

**Q.no 57. In threat modeling, what methodology used to perform risk analysis**

A : DREAD

B : OWASP

C : STRIDE

D : DAR

**Q.no 58. The cloud middleware consists of two kinds of middleware.....**

A : IaaS and PaaS

B : IaaS and SaaS

C : SaaS and PaaS

D : SaaS and BaaS

**Q.no 59. HTTP resources are located by**

A : unique resource locator

B : unique resource identifier

C : none of the mentioned

D : uniform resource identifier

**Q.no 60. Zigbee architectures consist of which the following section**

A : Physical

B : ZigBee device

C : Transport

D : IEEE 802.15.4

---

**Answer for Question No 1. is a**

---

**Answer for Question No 2. is c**

---

**Answer for Question No 3. is c**

---

**Answer for Question No 4. is b**

---

**Answer for Question No 5. is b**

---

**Answer for Question No 6. is b**

---

**Answer for Question No 7. is c**

---

**Answer for Question No 8. is c**

---

**Answer for Question No 9. is d**

---

**Answer for Question No 10. is d**

---

**Answer for Question No 11. is d**

---

**Answer for Question No 12. is b**

---

**Answer for Question No 13. is a**

---

**Answer for Question No 14. is d**

---

**Answer for Question No 15. is c**

---

**Answer for Question No 16. is a**

---

**Answer for Question No 17. is c**

---

**Answer for Question No 18. is c**

---

**Answer for Question No 19. is b**

---

**Answer for Question No 20. is b**

---

**Answer for Question No 21. is c**

---

**Answer for Question No 22. is b**

---

**Answer for Question No 23. is d**

---

**Answer for Question No 24. is c**

---

**Answer for Question No 25. is c**

---

**Answer for Question No 26. is b**

---

**Answer for Question No 27. is a**

---

**Answer for Question No 28. is d**

---

**Answer for Question No 29. is b**

---

**Answer for Question No 30. is a**

---

**Answer for Question No 31. is b**

---

**Answer for Question No 32. is d**

---



**Answer for Question No 33. is a**

---

**Answer for Question No 34. is a**

---

**Answer for Question No 35. is c**

---

**Answer for Question No 36. is d**

---

**Answer for Question No 37. is a**

---

**Answer for Question No 38. is c**

---

**Answer for Question No 39. is b**

---

**Answer for Question No 40. is a**

---

**Answer for Question No 41. is d**

---

**Answer for Question No 42. is b**

---

**Answer for Question No 43. is c**

---

**Answer for Question No 44. is b**

---

**Answer for Question No 45. is c**

---

**Answer for Question No 46. is d**

---

**Answer for Question No 47. is a**

---

**Answer for Question No 48. is a**

---

**Answer for Question No 49. is d**

---

**Answer for Question No 50. is d**

---

**Answer for Question No 51. is d**

---

**Answer for Question No 52. is d**

---

**Answer for Question No 53. is c**

---

**Answer for Question No 54. is d**

---

**Answer for Question No 55. is a**

---

**Answer for Question No 56. is c**

---

**Answer for Question No 57. is a**

---

**Answer for Question No 58. is a**

---

**Answer for Question No 59. is d**

---

**Answer for Question No 60. is d**

---

Total number of questions : 60

11678\_EMBEDDED SYSTEM AND INTERNET OF THINGS

Time : 1hr

Max Marks : 50

N.B

- 1) All questions are Multiple Choice Questions having single correct option.
- 2) Attempt any 50 questions out of 60.
- 3) Use of calculator is allowed.
- 4) Each question carries 1 Mark.
- 5) Specially abled students are allowed 20 minutes extra for examination.
- 6) Do not use pencils to darken answer.
- 7) Use only black/blue ball point pen to darken the appropriate circle.
- 8) No change will be allowed once the answer is marked on OMR Sheet.
- 9) Rough work shall not be done on OMR sheet or on question paper.
- 10) Darken ONLY ONE CIRCLE for each answer.

---

**Q.no 1. Information model adds more details to the Virtual Entities by defining their ----- and relations.**

- A : Virtual
- B : System Model
- C : Attributes
- D : Domain Model

**Q.no 2. Which is not a open-source SaaS (Software-as-a-Service) project?**

- A : Ubuntu
- B : Microsoft Office 365
- C : openSIS
- D : Zimbra

**Q.no 3. Which is true about model view controller architecture of Django**

A : It represents by a database

B : It is user interface that you see in browser

C : It connects view and model together

D : None of the above

**Q.no 4. What kind of electronic document contains a public key?**

A : PIN

B : Digital certificate

C : PAN

D : Biometrics

**Q.no 5. \_\_\_\_\_ is not an enabling technology of IoT**

A : Cloud Computing

B : Big data Analytics

C : Wireless sensor network

D : Operating System

**Q.no 6. Gateway software should be smart enough to handle \_\_\_\_\_**

A : GPS

B : Message

C : Logging

D : Sensors

**Q.no 7. Services in Operational View Specifications are**

A : Mode service

B : State service

C : Controller Service

D : All of above

**Q.no 8. SODA all stands for-**

A : Service oriented data architecture

B : Service oriented device authentication

C : Service oriented device architecture

D : Service oriented device aapplication

**Q.no 9. What are the parameters that are default values?**

A : a) Port\_Name and Bits

B : b) Speed and Port\_Names

C : c) Speed and Parity

D : d) Stop bit and Flow Control

**Q.no 10. IPv4 is \_\_\_\_\_ bit address**

A : a) 24

B : b) 32

C : c) 64

D : d) 128

**Q.no 11. How many virtual servers can be launch with Amazon EC2 ?**

A : 1

B : 2

C : Infinite

D : 0

**Q.no 12. Amazon S3 is**

A : data storage infrastructure

B : compute capacity in the cloud

C : relational database in cloud

D : None of the above

**Q.no 13. Sensor TEDS Standardization Efforts given by**

A : IEEE 1459

B : IEEE 1451

C : IEEE 1441

D : IEEE 1414

**Q.no 14. What are advantages of Auto Scaling ?**

A : Better Availability

B : Better Cost management

C : Fault Tolerance

D : All of the mentioned

**Q.no 15. MQTT stands for \_\_\_\_\_**

A : MQ Telemetry Things

B : MQ Transport Telemetry

C : MQ Transport Things

D : MQ Telemetry Transport

**Q.no 16. Which Django component concerns about metadata ?**

A : Model

B : View

C : Template

D : None of the above

**Q.no 17. Each Functional Group either provides functionalities for interacting with instances of concepts defined in the ----- or provides information related to these concepts.**

A : System Model

B : Network Model

C : Domain Model

D : Basic Model

**Q.no 18. SOAP stands for-**

A : Simple Object Access Protocol

B : Server Object Access Protocol

C : Simple Orientation Across Protocol

D : Server Orientation Across Protocol

**Q.no 19. Which is the last layer in the WoT architecture?**

A : Composition Layer

B : Sharing Layer

C : Findability Layer

D : Accessibility Layer

**Q.no 20. Which of the following feature is used for scaling EC2 sites ?**

A : Auto Replica

B : Auto Scaling

C : Auto Ruling

D : All of the mentioned

**Q.no 21. Operational View Specification is**

A : Integration of the devices

B : Integration of the Components

C : Integration of Applications

D : None of above

**Q.no 22. In 1999, Marc Benioff founded a company, which pioneered the multi-tenant SaaS model, a new application-delivering mechanism. Which company is that?**

A : Salesforce

B : Oracle Siebel

C : SAP CRM

D : Infusionsoft

**Q.no 23. Which is one of the open-source IaaS (Infrastructure-as-a-Service) and PaaS (Platform-as-a-Service) projects?**

A : RedHat Cloud

B : Microsoft Azure

C : AWS

D : Google Cloud Platform

**Q.no 24. The father of IoT.**

A : a) Kevin Atrun

B : b) Kevin Atrhur

C : c) Kevin Ashton

D : d) Kevin Thomas

**Q.no 25. Rate monotonic scheduling algorithm is an example of \_\_\_\_\_category**

A : Static

B : Dynamic

C : Hybrid

D : Mixed

**Q.no 26. Private IoT, Public IoT, Community IoT and Hybrid IoT are four ..... models of IoT.**

A : deployment

B : characteristic

C : solution

D : service

**Q.no 27. Cloud computing is the fusion of .....**

A : EAI and grid.



B : SaaS and EAI.

C : grid and SOA.

D : SOAP and SaaS.

**Q.no 28. Public IoT is .....**

A : made available to general public or a large industry group.

B : shared by several organizations and supports a specific community that has shared concerns.

C : operated solely for an organization.

D : an integrated composition of two or more of the IoT systems (private, community, or public)

**Q.no 29. In which Step the system purpose, behavior and requirements (such as data collection requirements, data analysis requirements, system management requirements, data privacy and security requirements, user interface requirements, ...) are captured.**

A : Application Development

B : Device & Component Integration

C : Operational View Specification

D : Purpose & Requirements Specification

**Q.no 30. Which one of the following is the Zigbees operating mode?**

A : Beacon

B : Base

C : WiFi

D : Zigbee

**Q.no 31. A smart object is defined by IPSO**

A : Internet Protocol Smart Object

B : Internet Protocol Sensor Object

C : International Protocol Smart Object

D : International Protocol Sensor Object

**Q.no 32. Raspberry Pi Runs on customized Debian Linux called -----**

A : UNIX

B : Raspbian OS

C : MAC

D : Windows

**Q.no 33. Which of the following tools are used for measuring I/O of system to estimate transaction costs ?**

A : EBS

B : IOSTAT

C : ESW

D : All of the above

**Q.no 34. IEEE 802.15.4 framework conceives a 10m communications range with a transfer rate of**

A : 250 Kbits/s

B : 520 Kbits/s

C : 205 Kbits/s

D : 250 bits/s

**Q.no 35. Range of Zigbee is low-cost and low-powered mesh network \_\_\_\_\_**

A : 10-100 meters

B : 100-1000 meters

C : 10-100 cm

D : 100-1000 cm

**Q.no 36. WiFi is not present in which of the following models?**

A : a) Raspberry Pi3

B : b) Raspberry Pi Zero WH

C : c) Raspberry Pi Zero W

D : d) Raspberry Pi Zero

**Q.no 37. A network of physical objects or things embedded with electronics or softwares.**

A : a) AI

B : b) ML

C : c) IOT

D : d) Internet

**Q.no 38. Which of the Following are ZigBee based application**

A : FM Radio

B : low-power High-bandwidth

C : Balestic Missile

D : Medical Device Data Collection

**Q.no 39. For constrained nodes and constrained networks in Internet of Things which protocol is used.**

A : IPv4

B : IPv6

C : CoAP

D : MQTT

**Q.no 40. Which one is not Advanced features of ARM**

A : Thumb

B : Cache

C : Fast Multiplier

D : None Of Above

**Q.no 41. Gateway provides the connection between \_\_\_\_ and \_\_\_\_**

A : Cloud and controller

B : Network and Cloud

C : Network and Controller

D : Controller and Device

**Q.no 42. Which of the following is (are) example(s) of embedded system for data communication? USB Mass Storage device**

A : Network router

B : Digital camera

C : Music player

D : All of these

**Q.no 43. What are the distributions supported by raspberry Pi?**

A : a) Arch Linux

B : b) Debain

C : c) Fedora Remix

D : d) Arch Linux, Debain, and Fedora Remix

**Q.no 44. which statement is True about CISC**

A : Single Clock Cycle

B : Highly pipelined

C : Fixed Format Instruction

D : None of Above

**Q.no 45. NFC stands for**

A : Near Fast Communication

B : Near Field Communication

C : Near Field Consumer

D : Near Field Connection

**Q.no 46. Which of the following is not a correct way to secure communication layer**

A : Cloud initiated communication

B : TLS/SSL

C : IPS(Intrusion Prevention System)

D : Firewalls

**Q.no 47. Django forms and classes are created using \_\_\_\_\_**

A : Template

B : view

C : Model

D : Django Services

**Q.no 48. IEEE 802.15.4-Specifies physical layer and media access control for**

A : WPANs

B : LR-WPANs

C : HR-PANs

D : PAN

**Q.no 49. Which of the following is not the component of a SCADA system?**

A : a) Database server

B : b) I/O system

C : c) PLC controller

D : d) Sparger controller

**Q.no 50. Applications using managed cloud storage are \_\_\_\_\_ as a Service Web service.**

A : Infrastructure

B : Platform

C : Software

D : All of the above

**Q.no 51. IaaS, PaaS and SaaS are three ..... models of cloud.**

- A : deployment
- B : characteristic
- C : solution
- D : service

**Q.no 52. Connecting heterogeneous devices that makes the integration across systems and applications much simpler is achieved by**

- A : IoT
- B : WoT
- C : Both (a) and (b)
- D : Neither (a) nor (b).

**Q.no 53. MQTT protocol uses \_\_\_\_\_communication model.**

- A : Publish Subscribe model
- B : Push Pull model
- C : Exclusive Pair model
- D : Request Response model

**Q.no 54. Zigbee architectures consist of which the following section**

- A : Physical
- B : ZigBee device
- C : Transport
- D : IEEE 802.15.4

**Q.no 55. Exclusive pair communication model can be best described as \_\_\_\_\_**

- A : Bidirectional , simplex
- B : Birectional , full duplex
- C : Unidirectional , simplex
- D : Unidirectional , full duplex

**Q.no 56. APS Provides services necessary for.....**

A : application Management and the ZigBee layers

B : application objects(endpoints) and the ZigBee device object (ZDO)

C : application Management and security management

D : Application Management

**Q.no 57. The cloud middleware consists of two kinds of middleware.....**

A : IaaS and PaaS

B : IaaS and SaaS

C : SaaS and PaaS

D : SaaS and BaaS

**Q.no 58. \_\_\_\_\_ is not an IoT application layer protocol**

A : XMPP

B : TCP

C : CoAP

D : MQTT

**Q.no 59. Which of the following is the heart of a SCADA system?**

A : PLC

B : HMI

C : Alarm task

D : I/O task

**Q.no 60. Which if the following is Light waight protocol used of IoT Applications**

A : a) MQTT

B : b) HTTP

C : c) WebSocket

D : d) All of the above

---

**Answer for Question No 1. is c**

---

**Answer for Question No 2. is b**

---

**Answer for Question No 3. is c**

---

**Answer for Question No 4. is b**

---

**Answer for Question No 5. is d**

---

**Answer for Question No 6. is c**

---

**Answer for Question No 7. is d**

---

**Answer for Question No 8. is c**

---

**Answer for Question No 9. is b**

---

**Answer for Question No 10. is b**

---

**Answer for Question No 11. is c**

---

**Answer for Question No 12. is a**

---

**Answer for Question No 13. is c**

---

**Answer for Question No 14. is d**

---

**Answer for Question No 15. is d**

---

**Answer for Question No 16. is b**



---

**Answer for Question No 17. is c**

---

**Answer for Question No 18. is a**

---

**Answer for Question No 19. is a**

---

**Answer for Question No 20. is b**

---

**Answer for Question No 21. is d**

---

**Answer for Question No 22. is a**

---

**Answer for Question No 23. is a**

---

**Answer for Question No 24. is c**

---

**Answer for Question No 25. is a**

---

**Answer for Question No 26. is a**

---

**Answer for Question No 27. is c**

---

**Answer for Question No 28. is a**

---

**Answer for Question No 29. is d**

---

**Answer for Question No 30. is a**

---

**Answer for Question No 31. is a**

---

**Answer for Question No 32. is b**

---

**Answer for Question No 33. is b**

---

**Answer for Question No 34. is a**

---

**Answer for Question No 35. is a**

---

**Answer for Question No 36. is d**

---

**Answer for Question No 37. is c**

---

**Answer for Question No 38. is d**

---

**Answer for Question No 39. is c**

---

**Answer for Question No 40. is d**

---

**Answer for Question No 41. is a**

---

**Answer for Question No 42. is b**

---

**Answer for Question No 43. is d**

---

**Answer for Question No 44. is d**

---

**Answer for Question No 45. is b**

---

**Answer for Question No 46. is a**

---

**Answer for Question No 47. is a**

---

**Answer for Question No 48. is b**

---

**Answer for Question No 49. is d**

---

**Answer for Question No 50. is a**

---

**Answer for Question No 51. is d**

---

**Answer for Question No 52. is b**

---

**Answer for Question No 53. is a**

---

**Answer for Question No 54. is d**

---

**Answer for Question No 55. is b**

---

**Answer for Question No 56. is d**

---

**Answer for Question No 57. is a**

---

**Answer for Question No 58. is b**

---

**Answer for Question No 59. is d**

---

**Answer for Question No 60. is a**

---

Total number of questions : 60

11678\_EMBEDDED SYSTEM AND INTERNET OF THINGS

Time : 1hr

Max Marks : 50

N.B

- 1) All questions are Multiple Choice Questions having single correct option.
  - 2) Attempt any 50 questions out of 60.
  - 3) Use of calculator is allowed.
  - 4) Each question carries 1 Mark.
  - 5) Specially abled students are allowed 20 minutes extra for examination.
  - 6) Do not use pencils to darken answer.
  - 7) Use only black/blue ball point pen to darken the appropriate circle.
  - 8) No change will be allowed once the answer is marked on OMR Sheet.
  - 9) Rough work shall not be done on OMR sheet or on question paper.
  - 10) Darken ONLY ONE CIRCLE for each answer.
- 

**Q.no 1. Each Functional Group either provides functionalities for interacting with instances of concepts defined in the ----- or provides information related to these concepts.**

A : System Model

B : Network Model

C : Domain Model

D : Basic Model

**Q.no 2. How many USB ports are present in Raspberry Pi 3?**

A : a) 5

B : b) 2

C : c) 4

D : d) 3

**Q.no 3. In M2M/ IoT protocols the payload and header is very \_\_\_\_\_**

A : Small

B : Big

C : Same as Internet Protocol

D : Moderate

**Q.no 4. Which statement is wrong regarding Service Specifications**

A : service inputs/output

B : service endpoints

C : Network Security

D : Service Preconditions

**Q.no 5. In 2008, which company launched the PaaS on-demand development platform & become a new pillar of cloud computing?**

A : Salesforce

B : The force.com

C : Amazon

D : Cloudera

**Q.no 6. Django interaction with application takes place with \_\_\_\_\_**

A : Template

B : model

C : view

D : Service

**Q.no 7. Gateway software should be smart enough to handle \_\_\_\_\_**

A : GPS

B : Message

C : Logging

D : Sensors

**Q.no 8. Which of the following is billing and account management service ?**

A : Amazon Elastic MapReduce

B : Amazon Mechanical Turk

C : Amazon DevPay

D : Multi-Factor Authentication

**Q.no 9. The control in SCADA is \_\_\_\_\_**

A : a) Online control

B : b) Direct control

C : c) Supervisory control

D : d) Automatic control

**Q.no 10. Services in Operational View Specifications are**

A : Mode service

B : State service

C : Controller Service

D : All of above

**Q.no 11. MQTT is \_\_\_\_\_ oriented protocol.**

A : Data

B : Message

C : Network

D : Device

**Q.no 12. How many categories of storage devices broadly exist in cloud?**

A : 1

B : 2

C : 3

D : 4

**Q.no 13. IAD stands for \_\_\_\_\_**

A : Intelligent Assist Device

B : Industrial Assist Device

C : International Assist Device

D : Informative Assist Device

**Q.no 14. In SCADA system the controlling is done by**

A : Online control

B : Direct control

C : Supervisory control

D : Automatic control

**Q.no 15. Which of the following provide access for developers to charge Amazon's customer for their purchases ?**

A : FWS

B : FAS

C : FPS

D : All of the mentioned

**Q.no 16. \_\_\_\_\_ allows us to control electronic components**

A : RESTful API

B : WebSocket API

C : HTTP

D : MQTT

**Q.no 17. Information Model defines the ----- of all the information in the IoT system**

A : Structure

B : service

C : Network

D : Device

**Q.no 18. How many types of voice communications in IoT environment :**

A : 2

B : 3

C : 4

D : 5

**Q.no 19. Amazon DynamoDB is**

A : Relational database in cloud

B : No-SQL database service

C : Hierarchical Databases

D : Distributed Databases

**Q.no 20. BRIDGE stands for**

A : Building Radio-Frequency Identifier

B : Building Radio-Frequency Identification

C : Building Radio-Frequency Identity

D : Building Radio-Frequent Identification

**Q.no 21. Amazon EC2 configuration determined by ?**

A : CPU

B : memory & storage

C : networking capability

D : All of the mentioned

**Q.no 22. How many layers contain by WoT architecture ?**

A : 3

B : 4



C : 5

D : 6

**Q.no 23. Which of the following is not the component of IoT Endpoint**

A : Sensor

B : Gateway

C : Communication Module

D : MCU

**Q.no 24. Which protocol is lightweight?**

A : a) MQTT

B : b) HTTP

C : c) CoAP

D : d) SPI

**Q.no 25. Two of the most common protocols for SCADA \_\_\_\_\_**

A : DNP3

B : T101

C : Both A & B

D : IPv4

**Q.no 26. Standard port number for secure MQTT is \_\_\_\_\_**

A : 1883

B : 8000

C : 8883

D : 8888

**Q.no 27. Which of the following is not the component of a SCADA system?**

A : a) Database server

B : b) I/O system

C : c) PLC controller

D : d) Sparger controller

**Q.no 28. CoAP is specialized application**

A : Internet applications

B : Device applications

C : Wireless applications

D : Wired applications

**Q.no 29. Which one is not True regarding WebSocketAPIs**

A : bi-directional

B : Full duplex

C : Not Secure

D : Exclusive Pair Communication

**Q.no 30. Which of the following is the vulnerabilities of IoT**

A : MALC

B : DDOS

C : DOSD

D : SSOD

**Q.no 31. Which of the Following are ZigBee based application**

A : FM Radio

B : low-power High-bandwidth

C : Balestic Missile

D : Medical Device Data Collection

**Q.no 32. Which of the following protocol is based on REST architecture**

A : a) HTTP

B : b) CoAP

C : c) Both a and b

D : d) MQTT

**Q.no 33. Django is \_\_\_\_\_kind of framework**

A : Web Security

B : Web Enhancement

C : Web Messaging

D : Web application

**Q.no 34. \_\_\_\_\_ allows us to control electronic components**

A : a) RETful API

B : b) RESTful API

C : c) HTTP

D : d) MQTT

**Q.no 35. \_\_\_\_\_ is the exampe of decentralised application layer protocol**

A : XMPP

B : HTTP

C : CoAP

D : MQTT

**Q.no 36. Process Specification in IOT design Methodology -----**

A : Defines the IoT level  
for the system

B : Shows the integration of the  
devices and components.

C : Defines the use cases of the IoT system are  
formally described based on and derived from the purpose and  
requirement specifications.

D : None of above

**Q.no 37. In unauthorized access.....should be done before granting the access  
rights**

- A : Value-based verification
- B : Identity-based verification
- C : Name-based verification
- D : Number-based verification

**Q.no 38. Which one is not a type Of RTOS**

- A : 1)Hard RTOS
- B : Soft RTOS
- C : Firm RTOS
- D : Embedded RTOS

**Q.no 39. Two Pillars of the Web are**

- I ] The protocol**
- II] The software**
- III] Platform Middleware**
- IV] Business Intelligence**

- A : Option I and II
- B : Option II and III
- C : Option I not III
- D : Option I not IV

**Q.no 40. What is the long form of OMTP, which was a forum crated by mobile network operators to discuss standards with manufacturers of cell phones and other mobile devices.**

- A : Open Mobile Transport Protocol
- B : Open Middleware Terminal Platform
- C : Open Mobile Terminal Platform
- D : Open Middleware Transport Protocol

**Q.no 41. SOAP is a protocol through which two computer communicates by sharing ----- document**

- A : XML
- B : HTML

C : JAVA

D : API

**Q.no 42. The ..... has features such as offline support, canvas drawing based on low footprint SVG graphics, GeolocationAPI, video and audio streaming support with flash, WebStorage, CSS3 Selectors, 2D animation for mobile cloud applications.**

A : HTML5

B : HTML4

C : HTML3

D : HTML2

**Q.no 43. What are the essential tight constraint/s related to the design metrics of an embedded system**

A : Ability to fit on a single chip

B : Low power consumption

C : Fast data processing for real-time operations

D : All of the above

**Q.no 44. Domain Model Specification defines**

A : Physical & Virtual Entity

B : Physical Entity

C : Virtual Entity

D : None of Above

**Q.no 45. Private IoT, Public IoT, Community IoT and Hybrid IoT are four ..... models of IoT.**

A : deployment

B : characteristic

C : solution

D : service

**Q.no 46. Communication model which involves brokers is called as \_\_\_\_\_**

A : Request Response model

B : Publish Subscribe model

C : Push Pull model

D : Exclusive Pair model

**Q.no 47. What is SCADA?**

A : Software

B : Process

C : System

D : Hardware

**Q.no 48. Some communication devices in IoT**

A : Sensors

B : Actuators

C : RFID Tags

D : All of Above

**Q.no 49. What is the typical range of transmission distance in a ZigBee network?**

A : 5 m.

B : 50 m.

C : 500 m.

D : 5 km

**Q.no 50. IOT Life cycle Collect->Communicate->\_\_\_\_\_ ->Act**

A : a) Acknowledge

B : b) Analyze

C : c) Examine

D : d) Rectify

**Q.no 51. Main components of USN(Ubiquitous Sensor Networks) are  
I] USN applications and services platform**

**II] Network infrastructure**

**III] USN gateway**

A : Only III

B : Option I and III

C : Option I not Option III

D : Option I, II and III

**Q.no 52. Find the correct statement with respect to SOA**

**I) It describes a standard method for requesting services from distributed components and managing the results**

**II) SOA provides the translation and management layer in an architecture that removes the barrier for a client obtaining desired services**

**III) With SOA, clients and components can be written in different languages and can use multiple messaging protocols**

A : Option I and II

B : Option I, II and III

C : Only Option I

D : Only Option III

**Q.no 53. From following which one is not fit for IOT Level**

A : IOT LEVEL 1

B : IOT LEVEL 2

C : IOT LEVEL 3

D : IOT LEVEL 11

**Q.no 54. \_\_\_\_\_ is an attack which forces an end user to execute unwanted actions on a web application in which he/she is currently authenticated.**

A : Cross-site scripting

B : Cross-site request forgery

C : Two-factor authentication

D : Cross-site scripting

**Q.no 55. IoT level \_\_\_\_\_ systems are suitable for solutions where the data involved is big and the analysis requirements are computationally intensive.**

A : Level 1

B : Level 2

C : Level 3

D : Level 4

**Q.no 56. Exclusive pair communication model can be best described as \_\_\_\_\_**

A : Bidirectional , simplex

B : Birectional , full duplex

C : Unidirectional , simplex

D : Unidirectional , full duplex

**Q.no 57. Connecting heterogeneous devices that makes the integration across systems and applications much simpler is achieved by**

A : IoT

B : WoT

C : Both (a) and (b)

D : Neither (a) nor (b).

**Q.no 58. IoT level \_\_\_\_\_ systems are suitable for solutions where multiple nodes are required, the data involved is big and the analysis requirements are computationally intensive**

A : Level1

B : Level 2

C : Level 3

D : Level 4

**Q.no 59. The technological foundation of cloud computing is distributed computing based on communication networks using.....**

A : the internet of things

B : Google servers farms and Google Map

C : Amazon Web Service



D : cluster of workstations and networks of workstations

**Q.no 60. MQTT protocol uses \_\_\_\_\_communication model.**

A : Publish Subscribe model

B : Push Pull model

C : Exclusive Pair model

D : Request Response model

---

**Answer for Question No 1. is c**

---

**Answer for Question No 2. is c**

---

**Answer for Question No 3. is a**

---

**Answer for Question No 4. is c**

---

**Answer for Question No 5. is b**

---

**Answer for Question No 6. is b**

---

**Answer for Question No 7. is c**

---

**Answer for Question No 8. is c**

---

**Answer for Question No 9. is c**

---

**Answer for Question No 10. is d**

---

**Answer for Question No 11. is b**

---

**Answer for Question No 12. is b**

---

**Answer for Question No 13. is a**

---

**Answer for Question No 14. is c**

---

**Answer for Question No 15. is c**

---

**Answer for Question No 16. is a**

---

**Answer for Question No 17. is a**

---

**Answer for Question No 18. is b**

---

**Answer for Question No 19. is b**

---

**Answer for Question No 20. is b**

---

**Answer for Question No 21. is d**

---

**Answer for Question No 22. is b**

---

**Answer for Question No 23. is b**

---

**Answer for Question No 24. is a**

---

**Answer for Question No 25. is c**

---

**Answer for Question No 26. is c**

---

**Answer for Question No 27. is d**

---

**Answer for Question No 28. is a**

---

**Answer for Question No 29. is c**

---

**Answer for Question No 30. is b**

---

**Answer for Question No 31. is d**

---

**Answer for Question No 32. is c**

---

**Answer for Question No 33. is d**

---

**Answer for Question No 34. is a**

---

**Answer for Question No 35. is a**

---

**Answer for Question No 36. is c**

---

**Answer for Question No 37. is b**

---

**Answer for Question No 38. is d**

---

**Answer for Question No 39. is a**

---

**Answer for Question No 40. is c**

---

**Answer for Question No 41. is a**

---

**Answer for Question No 42. is a**

---

**Answer for Question No 43. is d**

---

**Answer for Question No 44. is a**

---

**Answer for Question No 45. is a**

---

**Answer for Question No 46. is b**

---

**Answer for Question No 47. is b**

---

**Answer for Question No 48. is d**

---

**Answer for Question No 49. is b**

---

**Answer for Question No 50. is a**

---

**Answer for Question No 51. is d**

---

**Answer for Question No 52. is b**

---

**Answer for Question No 53. is d**

---

**Answer for Question No 54. is d**

---

**Answer for Question No 55. is c**

---

**Answer for Question No 56. is b**

---

**Answer for Question No 57. is b**

---

**Answer for Question No 58. is d**

---

**Answer for Question No 59. is d**

---

**Answer for Question No 60. is a**

---

Total number of questions : 60

11678\_EMBEDDED SYSTEM AND INTERNET OF THINGS

Time : 1hr

Max Marks : 50

N.B

- 1) All questions are Multiple Choice Questions having single correct option.
  - 2) Attempt any 50 questions out of 60.
  - 3) Use of calculator is allowed.
  - 4) Each question carries 1 Mark.
  - 5) Specially abled students are allowed 20 minutes extra for examination.
  - 6) Do not use pencils to darken answer.
  - 7) Use only black/blue ball point pen to darken the appropriate circle.
  - 8) No change will be allowed once the answer is marked on OMR Sheet.
  - 9) Rough work shall not be done on OMR sheet or on question paper.
  - 10) Darken ONLY ONE CIRCLE for each answer.
- 

**Q.no 1. This Process of identifying any individual is called as.**

- A : Auditing
- B : Authorisation
- C : Authentication
- D : Accounting

**Q.no 2. SOA stands for .....**

- A : Solution Oriented Architecture
- B : Sector Oriented Architecture
- C : Source Oriented Architecture
- D : Service Oriented Architecture

**Q.no 3. HelloWeb is an example of \_\_\_\_\_**

A : HTTP

B : MQTT

C : SMTP

D : CoAP

**Q.no 4. What is the full form of SCADA?**

A : a) Supervisory Control and Document Acquisition

B : b) Supervisory Control and Data Acquisition

C : c) Supervisory Column and Data Assessment

D : d) Supervisory Column and Data Assessment

**Q.no 5. Wi-Fi stands for?**

A : a) Wireless fidelity

B : b) Wireless Flexibility

C : c) Wide Fidelity

D : d) WAN Flexibility

**Q.no 6. MQTT stands for**

A : MQ Telemetry Things

B : MQ Transport Telemetry

C : MQ Transport Things

D : MQ Telemetry Transport

**Q.no 7. Which is the last layer in the WoT architecture?**

A : Composition Layer

B : Sharing Layer

C : Findability Layer

D : Accessibility Layer

**Q.no 8. AMIs are operating system running on \_\_\_\_ virtualisation hypervisor**

A : Yen

B : Xen

C : Ben

D : Multi-Factor Authentication

**Q.no 9. SODA all stands for-**

A : Service oriented data architecture

B : Service oriented device authentication

C : Service oriented device architecture

D : Service oriented device aapplication

**Q.no 10. IoT Level\_\_\_\_\_ systems has a single node/device that performs sensing and/ or actuation, stores data, performs analysis and hosts the application.**

A : Level 1

B : Level 2

C : Level 3

D : Level 4

**Q.no 11. What is the default user in Debain on Raspberry Pi?**

A : a) Default

B : b) User

C : c) Pi

D : d) Root

**Q.no 12. The sixth step in the IoT design methodology is to define the ----- for the system.**

A : IoT level

B : IOT BASICS

C : IOT PAYLOAD

D : IOT CHECKSUM



**Q.no 13. Sensor TEDS Standardization Efforts given by**

A : IEEE 1459

B : IEEE 1451

C : IEEE 1441

D : IEEE 1414

**Q.no 14. \_\_\_\_\_ allows us to control electronic components**

A : RESTful API

B : WebSocket API

C : HTTP

D : MQTT

**Q.no 15. To define the information model, we first list the ----- Entities defined**

A : Dynamic

B : Virtual

C : System

D : Basic

**Q.no 16. Data stored in \_\_\_\_\_ domains doesn't require maintenance of schema.**

A : SimpleDB

B : SQL Server

C : Oracle

D : RDS

**Q.no 17. Which is one of the open-source IaaS (Infrastructure-as-a-Service) and PaaS (Platform-as-a-Service) projects?**

A : RedHat Cloud

B : Microsoft Azure

C : AWS

D : Google Cloud Platform

**Q.no 18. Xivety is available as \_\_\_\_\_**

A : IaaS

B : SaaS

C : CaaS

D : Paas

**Q.no 19. RFID stands for?**

A : Random frequency identification

B : Radio frequency identification

C : Random frequency information

D : Radio frequency information

**Q.no 20. Which protocol is an open standard**

A : CoAP

B : MQTT

C : XMPP

D : HTTP

**Q.no 21. How many virtual servers can be launch with Amazon EC2 ?**

A : 1

B : 2

C : Infinite

D : 0

**Q.no 22. Rate monotonic scheduling algorithm is an example of \_\_\_\_\_category**

A : Static

B : Dynamic

C : Hybrid

D : Mixed

**Q.no 23. Amazon S3 stands for**

A : Secure storage service

B : Session storage service

C : Simple storage service

D : Sample storage service

**Q.no 24. How many USB ports are present in Raspberry Pi 3?**

A : a) 5

B : b) 2

C : c) 4

D : d) 3

**Q.no 25. \_\_\_\_ is virtual server platform that allows users to create and run virtual machines on Amazon's server farm.**

A : EC2

B : Azure

C : EC5

D : None of the above

**Q.no 26. IOT Life cycle Collect->Communicate->\_\_\_\_\_ ->Act**

A : a) Acknowledge

B : b) Analyze

C : c) Examine

D : d) Rectify

**Q.no 27. Domain Model Specification defines**

A : Physical & Virtual Entity

B : Physical Entity

C : Virtual Entity

D : None of Above

**Q.no 28. \_\_\_\_\_ is the example of decentralised application layer protocol**

A : XMPP

B : HTTP

C : CoAP

D : MQTT

**Q.no 29. Which of the following in LPWAN technologies**

A : a) LoRa

B : b) GSM

C : c) CDMA

D : d) LTE

**Q.no 30. WAMP follows \_\_\_\_\_ approach.**

A : Connectionless

B : Connection-Oriented

C : OTA

D : None of the above

**Q.no 31. WiFi uses how much frequency ?**

A : 2.2 GHz

B : 3 GHz

C : 3.5 GHz

D : 2.4 GHz

**Q.no 32. How many levels are present in a complex SCADA system?**

A : a) 3 – levels

B : b) 5 – levels

C : c) 4 – levels

D : d) 6 – levels

**Q.no 33. Which statement is True for Real Time Operating System (RTOS):**

A : Act as interface between hardware & Application software.

B : RTOS defines the way the system work.

C : Which supervise the application software.

D : All of Above

**Q.no 34. Which of the following is the vulnerabilities of IoT**

A : MALC

B : DDOS

C : DOSD

D : SSOD

**Q.no 35. \_\_\_\_\_ allows us to control electronic components**

A : a) RETful API

B : b) RESTful API

C : c) HTTP

D : d) MQTT

**Q.no 36. Which of the following protocol is based on REST architecture**

A : a) HTTP

B : b) CoAP

C : c) Both a and b

D : d) MQTT

**Q.no 37. Advantage of MQTT over HTTP is**

A : a) More secure

B : b) Lightweight

C : c) Polling is not required

D : d) a and b

**Q.no 38. Process Specification in IOT design Methodology -----**

A : Defines the IoT level  
for the system

B : Shows the integration of the  
devices and components.

C : Defines the use cases of the IoT system are  
formally described based on and derived from the purpose and  
requirement specifications.

D : None of above

**Q.no 39. DDL classifies devices into three categories**

A : API, actutators and complex devices

B : Bundles, API and sensors

C : OSGI, API and actutators

D : Sensor, actutators and complex devices

**Q.no 40. What is the typical range of transmission distance in a ZigBee network?**

A : 5 m.

B : 50 m.

C : 500 m.

D : 5 km

**Q.no 41. Two Pillars of the Web are**

**I ] The protocol**

**II] The software**

**III] Platform Middleware**

**IV] Business Intelligence**

A : Option I and II

B : Option II and III

C : Option I not III

D : Option I not IV

**Q.no 42. Which one is not True regarding WebSocketAPIs**

A : bi-directional

B : Full duplex

C : Not Secure

D : Exclusive Pair Communication

**Q.no 43. RFID stands for?**

A : a) Random frequency identification

B : b) Radio frequency identification

C : c) Random frequency information

D : d) Radio frequency information

**Q.no 44. WiFi is not present in which of the following models?**

A : a) Raspberry Pi3

B : b) Raspberry Pi Zero WH

C : c) Raspberry Pi Zero W

D : d) Raspberry Pi Zero

**Q.no 45. REST is ----- than SOAP**

A : Slower

B : Faster

C : none of above

D : All of Above

**Q.no 46. Standard port number for secure MQTT is \_\_\_\_\_**

A : 1883

B : 8000

C : 8883

D : 8888

**Q.no 47. A smart object is defined by IPSO**

A : Internet Protocol Smart Object

B : Internet Protocol Sensor Object

C : International Protocol Smart Object

D : International Protocol Sensor Object

**Q.no 48. NFC stands for**

A : Near Fast Communication

B : Near Field Communication

C : Near Field Consumer

D : Near Field Connection

**Q.no 49. WAMP is**

A : Unidirectional

B : Bidirectional

C : both

D : None of the above

**Q.no 50. Which of the following is not the component of a SCADA system?**

A : a) Database server

B : b) I/O system

C : c) PLC controller

D : d) Sparger controller

**Q.no 51. Exclusive pair communication model can be best described as \_\_\_\_\_**

A : Bidirectional , simplex

B : Birectional , full duplex

C : Unidirectional , simplex

D : Unidirectional , full duplex

**Q.no 52. WOT is**

**I] An applications' platform**



**II] Explores the layer top of connectivity with things**

**III] fast prototyping, data integration and interaction with objects**

A : Only III

B : Option I and III

C : Option I not III

D : Option I, II and III

**Q.no 53. The technological foundation of cloud computing is distributed computing based on communication networks using.....**

A : the internet of things

B : Google servers farms and Google Map

C : Amazon Web Service

D : cluster of workstations and networks of workstations

**Q.no 54. Which of the following is the heart of a SCADA system?**

A : PLC

B : HMI

C : Alarm task

D : I/O task

**Q.no 55. Which of the following describes a message-passing taxonomy for a component-based architecture that provides services to clients upon demand?**

A : SOA

B : EBS

C : GEC

D : Option 2 and 3

**Q.no 56. Embedded Systems applications typically involve processing information as \_\_\_\_\_**

A : Block

B : Logical Volumes

C : Distance

D : Signals

**Q.no 57. IoT level \_\_\_\_\_ systems are suitable for solutions where the data involved is big and the analysis requirements are computationally intensive.**

A : Level 1

B : Level 2

C : Level 3

D : Level 4

**Q.no 58. IEEE 802.15.4 is a technical standard which defines the operation of \_\_\_\_\_**

A : LR-WPANs

B : USN

C : WSN

D : Zigbee

**Q.no 59. Connecting heterogeneous devices that makes the integration across systems and applications much simpler is achieved by**

A : IoT

B : WoT

C : Both (a) and (b)

D : Neither (a) nor (b).

**Q.no 60. IaaS, PaaS and SaaS are three ..... models of cloud.**

A : deployment

B : characteristic

C : solution

D : service

---

**Answer for Question No 1. is c**

---

**Answer for Question No 2. is d**

---

**Answer for Question No 3. is a**

---

**Answer for Question No 4. is b**

---

**Answer for Question No 5. is a**

---

**Answer for Question No 6. is d**

---

**Answer for Question No 7. is a**

---

**Answer for Question No 8. is b**

---

**Answer for Question No 9. is c**

---

**Answer for Question No 10. is a**

---

**Answer for Question No 11. is c**

---

**Answer for Question No 12. is a**

---

**Answer for Question No 13. is c**

---

**Answer for Question No 14. is a**

---

**Answer for Question No 15. is b**

---

**Answer for Question No 16. is a**

---

**Answer for Question No 17. is a**

---

**Answer for Question No 18. is d**

---

**Answer for Question No 19. is b**

---

**Answer for Question No 20. is b**

---

**Answer for Question No 21. is c**

---

**Answer for Question No 22. is a**

---

**Answer for Question No 23. is c**

---

**Answer for Question No 24. is c**

---

**Answer for Question No 25. is a**

---

**Answer for Question No 26. is a**

---

**Answer for Question No 27. is a**

---

**Answer for Question No 28. is a**

---

**Answer for Question No 29. is a**

---

**Answer for Question No 30. is b**

---

**Answer for Question No 31. is d**

---

**Answer for Question No 32. is c**

---

**Answer for Question No 33. is d**

---

**Answer for Question No 34. is b**

---

**Answer for Question No 35. is a**

---

**Answer for Question No 36. is c**

---

**Answer for Question No 37. is d**

---

**Answer for Question No 38. is c**

---

**Answer for Question No 39. is d**

---

**Answer for Question No 40. is b**

---

**Answer for Question No 41. is a**

---

**Answer for Question No 42. is c**

---

**Answer for Question No 43. is b**

---

**Answer for Question No 44. is d**

---

**Answer for Question No 45. is b**

---

**Answer for Question No 46. is c**

---

**Answer for Question No 47. is a**

---

**Answer for Question No 48. is b**

---

**Answer for Question No 49. is b**

---

**Answer for Question No 50. is d**

---

**Answer for Question No 51. is b**

---

**Answer for Question No 52. is a**

---

**Answer for Question No 53. is d**

---

**Answer for Question No 54. is d**

---

**Answer for Question No 55. is a**

---

**Answer for Question No 56. is d**

---

**Answer for Question No 57. is c**

---

**Answer for Question No 58. is a**

---

**Answer for Question No 59. is b**

---

**Answer for Question No 60. is d**

---