# CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

# Devang Patel Institute of Advance Technology and Research

## DEPARTMENT OF COMPUTER ENGINEERING and INFORMATION TECHNOLOGY

### MCQ

| | | | | Marks |
|---|---|---|---|---|
| 1. | Arduino is_____microcontroller, intended to make the application of interactive objects. | | | 1 |
| | **a.** | Single Board | b. | Dual Board | |
| | c. | No-Board | d. | Double Board | |
| 2. | The Atmega328 on the Arduino Uno comes preburned with a_____that allows you to upload new code to it without the use of an external hardware programmer | | | 2 |
| | a. | Interpreter | b. | Uploader | |
| | c. | Compiler | **d.** | Bootloader | |
| 3 | Barrel Jack in Arduino is used for | | | 1 |
| | a. | Input Data | **b.** | Power Supply | |
| | c. | Output Data | d. | USB for LCD Display | |
| 4 | Arduino UNO Operating at | | | 1 |
| | **a.** | 5V and 3.3V | b. | 6V and 4.3V | |
| | c. | 9V and 7.7V | d. | 9V and 3.3V | |
| 5 | Number of digital I/O pin in Arduino UNO is | | | 1 |
| | a. | 6 | b. | 20 | |
| | **c.** | 14 | d. | 18 | |
| 6 | Clock Speed of Arduino UNO is | | | 1 |
| | a. | 14MHz | b. | 16 MHz | |
| | c. | 18 MHz | d. | 15 MHz | |
| 7 | Which one is the Arduino Board. | | | 1 |
| | a. | Arduino Leonardo | b. | Arduino Yun | |
| | c. | Arduino Due | d. | All of the Above | |
| 8 | _____is a combination of hardware and software to perform a specific task. | | | 1 |
| | a. | IoT System | b. | System | |
| | **c.** | Embedded System | d. | Arduino | |
| 9 | Which One is not the type of Memory? | | | 2 |
| | a. | NVRAM | b. | EPROM | |
| | c. | MASKED ROM | **d.** | DPROM | |
| 10 | Cloud Platform can help in Device Lifecycle Management. | | | 1 |
| | **a.** | TRUE | b. | | |
| | c. | FALSE | d. | | |
| 11 | Which of the following Cloud Model is helpful in IoT Deployment? | | | 1 |
| | a. | IaaS | b. | SaaS | |

| | | | | | |
|---|---|---|---|---|---|
| | c. | PaaS | **d.** | All of the Above | |
| 12 | Which one is not Leading Cloud Services for IoT Deployments | | | | 1 |
| | a. | AWS | b. | IBM Watson | |
| | c. | Microsoft Azure | **d.** | Google Drive | |
| 13 | Enables data streaming that can continuously capture the data in terabytes per hour. | | | | 2 |
| | a. | AWS Lambda | **b.** | AWS Kinesis | |
| | c. | AWS IoT Core | d. | AWS DynamoDB | |
| 14 | Allow data processing close to device. | | | | 1 |
| | a. | Cloud Computing | b. | Fog Computing | |
| | **c.** | Edge Computing | d. | Grid Computing | |
| 15 | Who is popular as a person to coined term IoT first time? | | | | 1 |
| | a. | Kevin Arnold | b. | Kyle Ashton | |
| | **c.** | Kevin Ashton | d. | Kyle Arnold | |
| 16 | In the concept of Internet of Things, Things include | | | | 1 |
| | a. | Computer like Device | b. | Non-Computer Device | |
| | c. | Any electric Device | **d.** | All of the Above | |
| 17 | Which one in the following is not part of 5A's Paradigm? | | | | 1 |
| | a. | Anything | b. | Anyway | |
| | c. | Anytime | **d.** | Always | |
| 18 | IoT is a network of_____computers to a network of interconnected objects. | | | | 1 |
| | **a.** | interconnected | b. | Intraconnected | |
| | c. | Inter | d. | Intra | |
| 19 | Major Component of IoT is/are | | | | 1 |
| | a. | Sensors | b. | Smart Applications | |
| | c. | Actuators | **d.** | All of the above | |
| 20 | Which one cannot be suitable communication technology for IoT? | | | | 1 |
| | a. | NFC | b. | Zigbee | |
| | c. | Bluetooth | **d.** | Wired network | |
| 21 | ZigBee is most Suitable communication standard for IoT. | | | | 1 |
| | a. | Low data rate | b. | Low power consumption | |
| | c. | Both A and B | d. | None of the Above | |
| 22 | ISM stand for | | | | 2 |
| | **a.** | Industrial, Scientific and Medical | b. | Information, Scientific and Medical | |
| | c. | Industrial, Science and Medical | d. | Industrial, Scientific and Medicine | |
| 23 | Which of the following concept is not similar to IoT? | | | | |

| | | | | | |
|---|---|---|---|---|---|
| | a. | Ubiquitous Sensor Networks | b. | Cloud of Things | |
| | c. | Web of Things | **d.** | Virtual Things | |
| 24 | Which one is the most discussed challenge in IoT? | | | | |
| | a. | Standard | **b.** | Security | |
| | c. | Regulation | d. | None of the Above | |
| 25 | M2M Does not follow Internet Protocol (IP)–based networks and Internet standards. | | | | 1 |
| | **a.** | True | b. | False | |
| | c. | | d. | | |
| 26 | Which one is not the feature of M2M? | | | | 2 |
| | a. | Low Mobility | b. | Low Power Consumption | |
| | c. | Time Controlled | **d.** | Circuit Switched | |
| 27 | Useful in connectivity between M2M Devices and M2M Gateways. | | | | 1 |
| | **a.** | M2M Area Network | b. | M2M Gateway | |
| | c. | M2M Communication Networks | d. | M2M Device | |
| 28 | What are/is essential concept(s) for M2M Communication success? | | | | 1 |
| | a. | Message Delivery for sleeping devices | b. | Message communication path selection | |
| | c. | Continuous connectivity | **d.** | All of the Above | |
| 29 | Which one from the following is not compulsory technology for establishment of IoT Setup? | | | | 2 |
| | a. | RFID | b. | Nanotechnology | |
| | c. | Smart Technology | **d.** | None of the above | |
| 30 | RFID stand for | | | | 1 |
| | **a.** | Radio Frequency Identification | b. | Radiology Frequency Identification | |
| | c. | Radio Frequent Identification | d. | Radio Frequency Identity | |
| 31 | Active Tags do not require power. | | | | |
| | a. | True | **b.** | False | 1 |
| | c. | | d. | | |
| 32 | RFID tags come up with embedded Antenna. | | | | 2 |
| | **a.** | True | b. | False | |
| | c. | | d. | | |
| 33 | Read The Case Study and Answer the Question:<br><br>**Case Study:** Automobile companies are evaluating or rolling out IoT for infotainment purposes for customers and remote vehicle management to keep track of vehicle performance. New Holland Fiat (India) launched the GPS and the GPRS technologies on its tractors under the name of "Sky Watch" in 2012, | | | | 2 |

|  |  |  |  |  |  |
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|  | according to its media release. This technology will enable farmers to monitor and trace their tractors" health and performance for better control and maintenance, easy operations, and improved productivity. This launch can represent a new product-as-a-service business model. More than 30% of the tractor owners are projected to rent out their tractors. Besides their own usage, it is extremely important to know the hourly usage, performance parameters, and the maintenance when the tractor is rented out. Consumer-packaged-goods (CPG) companies are offering remote management of products such as air conditioners with mobile applications to make them "intelligent" products. Videocon recently launched WiFi enabled air-conditioners that can be controlled from anywhere through a smartphone application as part of the company's vision for connected homes. According to the press release, the device has an energy meter and uses the WiFi at home to keep track of power usage. The "away" mode tracks the user's location and accordingly switches off to conserve power.<br><br>**Q: Which Launch can represent a new product as a service?** |  |  |  |  |
|  | **a.** | Sky Watch | b. | Tractor |  |
|  | c. | GPS | d. | GPRS |  |
| 34 | What is the size of IPV6? |  |  |  |  |
|  | **a.** | 128 | b. | 32 |  |
|  | c. | 64 | d. | 68 |  |
| 35 | RFID (Radio Frequency Identification) chips:<br> I. are used to track goods in distribution.<br>II. are used to track job progress in production.<br> III. may provide special instructions to operators.<br>IV. can be used in inventory record keeping. |  |  |  | **2** |
|  | a. | II and III only | b. | II, III, and IV |  |
|  | c. | I and II only | **d.** | I, II, and IV. |  |
| 36 | MQTT stands for |  |  |  | **1** |
|  | a. | Message Queue Telegram Transport | b. | Message Queue Telemetry Transport |  |
|  | **c.** | Message Queuing Telemetry Transport | d. | Message Queuing Telegram Transport |  |
| 37 | For the smart medicine cabinet place to affixed RFID tag in medicine containers is |  |  |  | **1** |
|  | a. | Cap of the containers | **b.** | Any part of the container, where tag will not damage |  |
|  | c. | Any part of the containers | d. | Front part of the container |  |

| | | | | | |
|---|---|---|---|---|---|
| 38 | You have to build IoT based smart parking system for the CHARUSAT, in which parking gate will automatically opened if any free slot will be there otherwise not. Where will sensors require detecting vehicle and opening the parking gate if there is free slot? | | | | 2 |
| | **a.** | At parking gate and In parking slots | b. | In parking slots only | |
| | c. | At parking gate only | d. | In vehicles only | |
| 39 | In bar code system | | | | 1 |
| | a. | No line of sight required for reading | b. | Same as RFID system | |
| | c. | From any angle reader can read | **d.** | line of sight required for reading | |
| 40 | Provisioning of IoT protocols can be same as Traditional networking | | | | 2 |
| | a. | True | b. | **False** | |
| | c. | | d. | | |
| 41 | Working of 6LoWPAN | | | | 1 |
| | a. | IPV6 Packet Encapsulation | b. | Link Layer Packet Forwarding | |
| | c. | IPV6 header compression | **d.** | All of the above | |
| 42 | MQTT Protocol can be used to pass video and audio data. | | | | 1 |
| | a. | True | **b.** | False | |
| | c. | | d. | | |
| 43 | In IoT based system UDP is more suitable protocol in comparison to TCP. | | | | 1 |
| | **a.** | True | b. | False | |
| | c. | | d. | | |
| 44 | Datagram Transport Layer Security provides | | | | 1 |
| | **a.** | security features on UDP | b. | security features on TCP | |
| | c. | security features on UDP and TCP | d. | None of the Above | |
| 45 | Constrained Application Protocol is a specialized | | | | 1 |
| | **a.** | Web Transfer Protocol | b. | File Transfer Protocol | |
| | c. | Audio/Video Transfer Protocol | d. | Physical layer Protocol | |
| 46 | CoAP protocol has been developed for allowing communication for devices on the same constrained network. | | | | 1 |
| | **a.** | True | b. | False | |
| | c. | | d. | | |
| 47 | coap://localhost:4589/Temperature/temp1, here the 4589 is | | | | 1 |
| | **a.** | Port address | b. | MAC address of Device | |
| | c. | Unique identifier of the parameter | d. | Unique identifier of the device | |

| 48 | Nowadays, many protocols are used as a communication protocol in the IoT devices. Five of the most prominent protocols used for IoT is Hypertext Transfer Protocol (HTTP), Constrained Application Protocol (CoAP), Extensible Messaging and Presence Protocol (XMPP), Advanced Message Queuing Protocol (AMQP), and MQ Telemetry Protocol (MQTT). MQ Telemetry Transport is a messaging protocol using a publish/subscribe mechanism which is originally designed by Andy Stanford-Clark and Arlen Nipper. It is currently in the OASIS (Organization for the Advancement of Structured Information Standards) standard. | | | | 2 |
|---|---|---|---|---|---|
| | Which protocol follow publish/subscriber model according to above discussion? | | | | |
| | a. | XMPP | **b.** | MQTT | **1** |
| | c. | AMQP | d. | CoAP | |
| 49 | Which protocol is developed for instant messaging to connect people? | | | | |
| | **a.** | XMPP | b. | MQTT | |
| | c. | AMQP | d. | RPL | |
| 50 | Software defined network concept can bring openness in network devices communication. | | | | 1 |
| | **a.** | True | b. | False | |
| | c. | | d. | | |
| 51 | NFV stand for | | | | 1 |
| | **a.** | Network Function Virtualization | b. | Network Fundamental and Virtualization | |
| | c. | Network Function and Validation | d. | Network Framework verification | |
| 52 | Changes bring by SDN concept in networking devices. | | | | 1 |
| | a. | Separated Data forwarding plane from Control Plane | b. | Allow central interfacing for control plane | |
| | **c.** | Both a and b | d. | First time introduces network OS in networking devices | |
| 53 | Raspberry Pi 2 uses | | | | |
| | **a.** | Broadcom BCM2836 | b. | Broadcom BCM2835 | |
| | c. | Broadcom BCM2837 | d. | Broadcom BCM2834 | |
| 54 | The Raspberry Pi cannot be operated with any generic USB computer keyboard And mouse. | | | | |
| | a. | True | **b.** | False | |
| | c. | | d. | | |
| 55 | Which one is the probable OS for Raspberry pi | | | | 1 |
| | a. | Raspbian | b. | RISC OS | |

| | | | | | |
|---|---|---|---|---|---|
| | c. | WINDOS 10 IOT CORE | **d.** | All of the Above | |
| 56 | Power consumption can be considered as one major challenge for IoT system | | | | **1** |
| | **a.** | True | b. | False | |
| | c. | | d. | | |
| 57 | A Sensor can be only analog sensor. | | | | **1** |
| | a. | True | **b.** | False | |
| | c. | | d. | | |
| 58 | An actuator is an active device which does work according to the situation without any sensor input. | | | | **2** |
| | a. | True | **b.** | False | |
| | c. | | d. | | |
| 59 | Type of circuit board which can be used for extension of capabilities of Arduino board. | | | | **2** |
| | a. | Bread Board | **b.** | Shield | |
| | c. | Actuator | d. | Microprocessor | |
| 60 | _____ is Standard Secured port Number for the MQTT Protocol | | | | **2** |
| | a. | 8883 | b. | | |
| | c. | | d. | | |
| 61 | Which one cannot be the one element of a IoT System | | | | |
| | a. | People | b. | Things | |
| | c. | **Process** | **d.** | Security | |
| 62 | What you get to know from Acronym IIoT | | | | |
| | a. | Informative Internet of things | b. | Innovative IoT | |
| | c. | Industrial IoT | d. | Incorporated IoT | |
| | c. | | d. | | |
| | | | | | |
| | a. | | b. | | |
| | c. | | d. | | |