

National Testing Agency

Question Paper Name: Components and Applications of Internet of Things
Subject Name: Components and Applications of Internet of Things
Creation Date: 2019-03-30 20:10:07
Duration: 180
Total Marks: 100
Display Marks: Yes

Components and Applications of Internet of Things

Group Number : 1
Group Id : 90958248
Group Maximum Duration : 0
Group Minimum Duration : 120
Revisit allowed for view? : No
Revisit allowed for edit? : No
Break time: 0
Group Marks: 100

Components and Applications of Internet of Things

Section Id : 90958248
Section Number : 1
Section type : Online
Mandatory or Optional: Mandatory
Number of Questions: 100
Number of Questions to be attempted: 100
Section Marks: 100
Display Number Panel: Yes
Group All Questions: No

Sub-Section Number: 1
Sub-Section Id: 90958251
Question Shuffling Allowed : Yes

Question Number : 1 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Given a data set as follows. Student ID, Amount of time spent for studying deep learning, outcome in final exam (pass/fail). Which of the following output function will be the most appropriate to build a predictor?

- Rectified linear unit
- Sigmoid function
- Tanh function
- Sine function

Options :

1. A
2. B
3. C
4. D

Question Number : 2 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is the lower bound of rectified linear unit?

- a. -1
- b. 1
- c. 0
- d. ∞

Options :

1. A
2. B
3. C
4. D

Question Number : 3 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is the upper limit of Tanh function?

- a. ∞
- b. $-\infty$
- c. 0
- d. 1

Options :

1. A
2. B
3. C
4. D

Question Number : 4 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Let $\sigma(z) = \frac{1}{1+e^{-z}}$ then $\frac{d}{dz} \sigma(z) =$

- a. $\frac{1}{1+e^z}$
- b. $\sigma(z)(1 - \sigma(z))$
- c. $\log(1 + \exp(x))$
- d. None of the above

Options :

1. A
2. B
3. C
4. D

Question Number : 5 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following Boolean function cannot be represented by a single neuron?

- a. $\bar{A}B$
- b. $A + \bar{B}$
- c. $A\bar{B} + \bar{A}B + AB$
- d. $A\bar{B} + \bar{A}B$

Options :

1. A
2. B
3. C
4. D

Question Number : 6 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following provides non-linearity to a neural network?

- a. Convolution operation
- b. Stochastic gradient descent
- c. Gradient descent
- d. Rectified linear unit

Options :

1. A
2. B
3. C
4. D

Question Number : 7 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is true about model capacity (ability to approximate complex function) of a neural network?

- a. With the increase of learning rate, model capacity increases
- b. With the increase of number of layers, model capacity increases
- c. Choice of optimizer such as stochastic gradient descent increases the capacity
- d. None of the above

Options :

1. A

2. B
3. C
4. D

Question Number : 8 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

If the number of hidden layers is increased, then the test error decreases always

- a. True
- b. True when the number of hidden layers is < 5 only
- c. False
- d. Cannot be said

Options :

1. A
2. B
3. C
4. D

Question Number : 9 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In a neural network, which of the following techniques is used to deal with overfitting?

- a. Regularization
- b. Data augmentation
- c. Drop out
- d. All of the above

Options :

1. A
2. B
3. C
4. D

Question Number : 10 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Change in weight parameters during back propagation depend on

- a. Weight parameters
- b. Loss function
- c. Input parameters
- d. All of the above

Options :

1. A
2. B
3. C
4. D

Question Number : 11 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is classification?

- a. Selection of prime features to be used for pattern recognition problem
- b. Deciding about the architecture of neural network
- c. deciding what class an input pattern belongs to
- d. None of the above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 12 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What are general limitations of back propagation rule?

- a. Local minima problem
- b. Slow convergence
- c. Scaling
- d. All of the above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 13 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Is back propagation algorithm based on gradient descent along error surface?

- a. Yes
- b. No
- c. Cannot be said
- d. It depends only on gradient descent not on error surface

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 14 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Consider the problem of recognizing rose from images, where each image contains a single flower.

This is an example of “structured” data, because it is represented as a structured array in a computer.

- a. True
- b. False
- c. It depends on the color of the rose
- d. None of the above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 15 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The error function most suited for gradient descent using logistic regression is

- a. Mean square error
- b. Cross entropy function
- c. Number of correct prediction
- d. None of the above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 16 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In which case the human interaction with the robot is the most

- a. Automated Guided Vehicles
- b. Service robots
- c. Social Robots
- d. Field robots

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 17 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following sentence(s) is/are correct?

- a. Proprioceptive sensors are used for odometry
- b. Exteroceptive sensors are used for odometry
- c. Proprioceptive sensors are used for global localization
- d. Exteroceptive sensors are used for global localization

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Note: For this question, ambiguity is found in question/answer. Candidate will get full marks for this question if any of the correct options are chosen.

Question Number : 18 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following sentence(s) is/are correct?

- a. Reactive autonomy is used for long-term missions
- b. Reactive autonomy is used for avoiding obstacles
- c. Deliberative autonomy is used for long-term missions
- d. Deliberative autonomy is used for avoiding obstacles

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Note: For this question, ambiguity is found in question/answer. Candidate will get full marks for this question if any of the correct options are chosen.

Question Number : 19 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Cloud is a part of which layer of an IoRT system?

- a. Hardware layer
- b. Network layer
- c. Internet layer
- d. Infrastructure layer

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 20 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

An IoRT system has a Bluetooth device. Which of the following layers the Bluetooth device belong to?

- a. Hardware layer
- b. Network layer
- c. Internet layer
- d. Infrastructure layer

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 21 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Global Positioning System (GPS) is not appropriate for indoor localization because

- a. Size of GPS is large
- b. Unavailability of Satellite signal
- c. GPS is not readily available in market
- d. None of these

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 22 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Localization is needed to estimate

- a. Coordinates
- b. Energy
- c. Time complexity
- d. None of these

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 23 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In time-difference of arrival based localization, we use

- a. Difference of received signal strength of two nodes
- b. Difference of coordinates of two nodes
- c. Difference of time of arrival at two nodes
- d. None of these

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 24 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Anchor in wireless sensor networks is whose

- a. Orientation is known
- b. Location is unknown
- c. Orientation is unknown
- d. None of these

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 25 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In three dimensional coordinates system, the number of anchors required for localization are

- a. 1
- b. 2
- c. 3
- d. None of these

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 26 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

If the distance of the node with respect to the anchor is small, the weight would be

- a. Large
- b. Small
- c. Moderate
- d. None of these

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 27 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

If the anchors are placed at (10, 10), (20, 20) and (30, 30) and the actual location of the sensor node location is (51, 70), the estimated location of the node using least square formulation in noise less scenario is

- a. (52, 70)
- b. (51, 70)
- c. (51, 51)
- d. None of these

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 28 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Angle of arrival based localization uses

- a. Antenna array
- b. Synchronization
- c. Received signal strength measuring device
- d. None of these

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 29 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Friss transmission formula is utilized to measure

- a. Orientation of the device
- b. Distance of the device
- c. Carrier offset
- d. None of these

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 30 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The path loss exponent generally varies between

- a. -20 to -50
- b. -2 to -5
- c. 2 to 5
- d. None of these

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 31 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

If the received signal strength at 5 different locations are -40 dBm, -50 dBm, -30 dBm, -70 dBm and -50 dBm. The zero mean features are

- a. 8 dBm, 2 dBm, 18 dBm, 22 dBm, 2 dBm
- b. -8 dBm, -2 dBm, -18 dBm, -22 dBm, -2 dBm
- c. -8 dBm, 2 dBm, 18 dBm, 22 dBm, -2 dBm
- d. None of these

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 32 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

If the received signal strength at 5 different locations are -40 dBm, -50 dBm, -30 dBm, -70 dBm and -50 dBm. The unity mean features are

- a. $5/6$ dBm, $25/24$ dBm, $5/8$ dBm, $35/24$ dBm, $25/24$ dBm
- b. $5/6$ dBm, $-25/24$ dBm, $5/8$ dBm, $35/24$ dBm, $-25/24$ dBm
- c. $-5/6$ dBm, $25/24$ dBm, $5/8$ dBm, $-35/24$ dBm, $25/24$ dBm
- d. None of these

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 33 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Training phase is needed in localization, in order to

- a. Evaluate the system performance
- b. Learn the parameters
- c. Predict the missing values
- d. None of these

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 34 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Traditional fingerprinting based method has x complexity and y localization accuracy. The x and y, respectively, are

- a. Low and low
- b. Low and high
- c. High and low
- d. High and high

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 35 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In Monte Carlo tracking, the overlapped region of communication ranges of all neighbouring anchors is called

- a. Sample box
- b. Anchor box
- c. Location box
- d. None of these

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 36 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A solar tree has many advantages such as

- a. Need more space
- b. requires very less space
- c. produce energy efficiently
- d. both (b) & (c)

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 37 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The disadvantages of solar tree is

- a. Land requirement is very less
- b. No air pollution
- c. People in poor country would have access to electricity
- d. none of the above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 38 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What does a charge controllers do?

- a. Regulate the charging and discharging of battery
- b. Regulate only charging of battery
- c. Regulate only discharging of battery
- d. None of the above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 39 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A wireless sensor network monitoring system uses for measuring

- a. Any physical system
- b. Any environmental conditions
- c. Any sensor measurement
- d. none of the above.

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 40 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

WSN is composed of

- a. ZigBee coordinator
- b. ZigBee router
- c. ZigBee end device
- d. All of the above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 41 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Data acquisition device consists of

- a. Sensors and real time clock
- b. Real time clock and micro controller
- c. Sensor and microcontroller
- d. sensors, Real Time Clock (RTC) chip, and microcontroller unit

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 42 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which is not a voltage regulator

- a. 7805
- b. 7912
- c. 74123
- d. All of the above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Note: For this question, ambiguity is found in question/answer. Candidate will get full marks for this question if any of the correct options are chosen.

Question Number : 43 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which is a temperature sensor?

- a. LM 55
- b. LM35
- c. B 25
- d. none of the above.

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 44 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The incoming data was read as a string and sent to

- a. Database
- b. Cloud
- c. Webservice
- d. None of the above.

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Note: For this question, ambiguity is found in question/answer. Candidate will get full marks for this question if any of the correct options are chosen.

Question Number : 45 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

WSN operates at

- a. 2.4 GHz
- b. 5.8 GHz
- c. 25 GHz
- d. none of the above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 46 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of is not an example of wireless network?

- a. Bluetooth
- b. Infrared
- c. 802.11 Wi-Fi
- d. 802.3 Ethernet

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 47 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Sniffing cannot be prevented in Wi-Fi network. Is this statement true or false?

- a. True
- b. False

Options :

- 1. A
- 2. B

Question Number : 48 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which IEEE standard represent the wireless communication standard?

- a. 802.11
- b. 802.3

Options :

- 1. A
- 2. B

Question Number : 49 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which amendment to the standard operates in the 2.4 GHz ISM band and supports data rates up to 54 Mbps?

- a. 802.11a
- b. 802.11b
- c. 802.11g
- d. 802.11n

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 50 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A basic service set requires a minimum of how many access points?

- a. 0
- b. 1
- c. 2
- d. 3

Options :

- 1. A
- 2. B
- 3. C

4. D

Question Number : 51 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is the backbone that is usually provided in 802.11 Wi-Fi networks?

- a. Wired
- b. Wireless
- c. Can be Both wired and wireless
- d. None of above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 52 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is the access point (AP) in wireless LAN?

- a. device that allows wireless devices to connect to a wired network
- b. wireless devices itself
- c. both device that allows wireless devices to connect to a wired network and wireless devices itself
- d. none of the mentioned

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 53 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In wireless ad-hoc network

- a. access point is not required
- b. access point is must
- c. nodes are not required
- d. none of the mentioned

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 54 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In wireless distribution system

- a. multiple access point are inter-connected with each other
- b. there is no access point
- c. only one access point exists
- d. none of the mentioned

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 55 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is WPA?

- a. wi-fi protected access
- b. wired protected access
- c. wired process access
- d. wi-fi process access

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 56 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Wireless transmission can be done via

- a. radio waves
- b. microwaves
- c. infrared
- d. all of the mentioned

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 57 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The 802.11b have _____ non-overlapping channels available.

- a. 12
- b. 3
- c. 9
- d. 50

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 58 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which band is used by Bluetooth/Wifi in mobiles?

- a. VHF band
- b. UHF band
- c. ISM band
- d. HF band

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 59 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

BSS stands for _____

- a. Basic service Set
- b. Basic service System
- c. Bluetooth service Set
- d. Bluetooth service System

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 60 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The frequency range for 802.11a standard is

- a. 5 GHz
- b. 2.4GHz
- c. 2.5GHz
- d. None of the above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 61 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

. Communication between two stations in two different BSSs usually occur in IEEE 802.11 via two

-
- a. BSSs
 - b. APs
 - c. ESSs
 - d. FCC

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 62 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

. In 2.4ghz ISM band, what is the amount of frequency that is allocated to each channel?

- a. 22 Mhz
- b. 44 Mhz
- c. 10 Mhz
- d. 18.4 Mhz

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 63 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which channels have 802.11 a works on which ISM Band

- a. 2.4 Ghz
- b. 5 GHz
- c. 900 Mhz
- d. None of the above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 64 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What WLAN device is installed in or attached to a PC to provide an interface to a wireless network?

- a. Network Adaptor
- b. Access Point
- c. Antenna
- d. Repeater

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 65 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What industry association develops, publishes, and maintains the standards for wireless networks?

- a. IEEE
- b. ISM
- c. UNII
- d. FCC

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 66 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is the term used to describe the ability for networking devices from different manufacturers to communicate effectively?

- a. Interoperable
- b. Accessible
- c. Portable
- d. Scalable

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 67 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is half duplex

- a. device can either transmit or receive at a given time but not both
- b. device can transmit and receive at a given time simultaneously
- c. device cannot transmit but receive
- d. device can transmit but not receive

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 68 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is full duplex

- a. device can either transmit or receive at a given time but not both
- b. device can transmit and receive at a given time simultaneously
- c. device cannot transmit but receive
- d. device can transmit but not receive

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 69 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is BSSID?

- a. MAC of the Access Point
- b. MAC of the Client/Station
- c. MAC of the Gateway
- d. None of the above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 70 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What does beacon frame do?

- a. Advertise the characteristics of the AP
- b. Advertise the characteristics of the Client
- c. Advertise the characteristics of the Gateway
- d. None of the above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 71 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

To sniff a wireless adaptor we need to set the interface in which mode?

- a. promiscuous mode
- b. hacking mode
- c. brute force mode
- d. none of the above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 72 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is wireless network mode is used when an office worker connects to a WLAN BSS from his desktop?

- a. Infrastructure
- b. ad hoc
- c. Either Infrastructure or adhoc
- d. None of the above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 73 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the FCC's RF bands operates in the frequency range of 2.4 GHz to 2.4835 GHz

- a. ISM
- b. RFID
- c. SOHO
- d. UNII

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 74 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

ARM stands for _____

- a. Advanced Rate Machines
- b. Advanced RISC Machines
- c. Artificial Running Machines
- d. Aviary Running Machines

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 75 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

RISC stands for _____

- a. Restricted Instruction Sequencing Computer
- b. Restricted Instruction Sequential Compiler
- c. Reduced Instruction Set Computer
- d. Reduced Induction Set Computer

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 76 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The main importance of ARM micro-processors is providing operation with _____

- a. Low cost and low power consumption
- b. Higher degree of multi-tasking
- c. Lower error or glitches
- d. Efficient memory management

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 77 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In the ARM, PC is implemented using _____

- a. Caches
- b. Heaps
- c. General purpose register
- d. Stack

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 78 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The additional duplicate register used in ARM machines are called as _____

- a. Copied-registers
- b. Banked registers
- c. Extra registers
- d. Extential registers

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 79 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Each instruction in ARM machines is encoded into _____ Word.

- a. 2 byte
- b. 3 byte
- c. 4 byte
- d. 8 byte

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 80 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is the processor used by ARM7?

- a. 8-bit CISC
- b. 8-bit RISC
- c. 32-bit CISC
- d. 32-bit RISC

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 81 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

How many registers are there in ARM7?

- a. 35 register(28 GPR and 7 SPR)
- b. 37 registers(28 GPR and 9 SPR)
- c. 37 registers(31 GPR and 6 SPR)
- d. 35 register(30 GPR and 5 SPR)

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 82 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What are t, d, m, I stands for in ARM7TDMI?

- a. Timer, Debug, Multiplex, ICE
- b. Thumb, Debug, Multiplier, ICE
- c. Timer, Debug, Modulation, IS
- d. Thumb, Debug, Multiplier, ICE

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 83 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

How many instructions pipelining is used in ARM7EJ-S?

- a. 3-Stage
- b. 4-Stage
- c. 5-Stage
- d. 7-stage

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 84 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which microcontrollers are adopted for designing medium scale embedded systems?

- a. 8-bit
- b. 16-bit to 32-bit
- c. 64-bit
- d. All of the above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 85 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

How is the nature of instruction size in CISC processors?

- a. Fixed
- b. Variable
- c. Both a and b
- d. None of the above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 86 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

DMA controllers stands for

- a. Direct Memory Alternation Controller
- b. Direct Memory Access Controller
- c. Direct Multi Access Controller
- d. Double Memory Access Controller

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 87 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Fluctuation in power supply levels will produced due to

- a. high di/dt
- b. low di/dt
- c. no di/dt
- d. infinite di/dt

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 88 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A microcontroller peripheral used to convert analog signal-level information into digital form is

- a. ADC
- b. DAC
- c. UART
- d. SPI

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 89 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Special type of ROM in microcontroller which can be reprogrammed many times, typically for storing program code, is

- a. RAM
- b. SRAM
- c. Flash memory
- d. Cache memory

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 90 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of following supports same instruction set as Cortex-M0 processor?

- a. Cortex-M7 processor
- b. Cortex-M3 processor
- c. Cortex-M4 processors
- d. Cortex-M0+ processor

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 91 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In Cortex-M processors, first step of pipeline is

- a. fetch
- b. decode
- c. memorize
- d. execute

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 92 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

One of most common and effective ways to reduce clock activity is

- a. clock generation
- b. clock loading
- c. clock gating
- d. clock disabling

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 93 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In microcontrollers, low power timer for counting seconds and keep track of current time is termed

as

- a. PLL
- b. RTC
- c. GPIO
- d. SPI

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 94 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Smart distribution system management comes under which network?

- (a) Home area network
- (b) Wide area network
- (c) Neighbour-hood area network
- (d) All of the above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 95 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is the full form of AMI?

- (a) Advanced master internet
- (b) Advanced metering infrastructure
- (c) Ahead metering infrastructure
- (d) None of the above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 96 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Traditional power grids are being transformed into Smart Grids (SGs) to solve the problems of

- (a) unidirectional information flow
- (b) energy wastage
- (c) growing energy demand
- (d) reliability and security
- (e) All of the above

Note: For this question, discrepancy is found in question/answer. Full Marks is being awarded to all candidates.

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 97 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The addition of 4-bit, two's complement, binary numbers 1101 and 0100 results in

- (a) 0001 and an overflow
- (b) 1001 and no overflow
- (C) 0001 and no overflow
- (d) 1001 and an overflow

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 98 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is the maximum number of edges in an acyclic undirected graph with n vertices?

- (a) $n-1$
- (b) n
- (c) $n+1$
- (d) $2n-1$

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 99 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The protocol data unit for the application layer in the Internet stack is

- (a) Segment
- (b) Datagram
- (c) Message
- (d) Frame

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 100 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Natural Language Processing (NLP) is field of

- a) Computer Science
- b) Artificial Intelligence
- c) Linguistics
- d) All of the above

Options :

- 1. A
- 2. B
- 3. C
- 4. D