

# National Testing Agency

**Question Paper Name:** Components And Applications Of Internet Of Things 16th February 2020 Shift 1  
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## Components And Applications Of Internet Of Things

**Group Number :** 1  
**Group Id :** 28860746  
**Group Maximum Duration :** 0  
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## Components And Applications Of Internet Of Things

**Section Id :** 28860752  
**Section Number :** 1  
**Section type :** Online  
**Mandatory or Optional:** Mandatory  
**Number of Questions:** 100  
**Number of Questions to be attempted:** 100  
**Section Marks:** 100

**Sub-Section Number:** 1  
**Sub-Section Id:** 28860764  
**Question Shuffling Allowed :** Yes

**Question Number : 1 Question Id : 2886074153 Question Type : MCQ Option Shuffling : No**  
**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 :

28860716553. 1

28860716554. 2

28860716555. 3

28860716556. 4

Question Number : 2 Question Id : 2886074154 Question Type : MCQ Option Shuffling : No

Correct Marks : 1 Wrong Marks : 0

What is the lower bound of rectified linear unit?

- a. -1
- b. 1
- c. 0
- d.  $\infty$

Options :

28860716557. 1

28860716558. 2

28860716559. 3

28860716560. 4

Question Number : 3 Question Id : 2886074155 Question Type : MCQ Option Shuffling : No

Correct Marks : 1 Wrong Marks : 0

Which is not the type of machine learning?

- a. Unsupervised learning
- b. Semi-supervised learning
- c. Transfer learning
- d. Reinforcement learning

Options :

28860716561. 1

28860716562. 2

28860716563. 3

28860716564. 4

Question Number : 4 Question Id : 2886074156 Question Type : MCQ Option Shuffling : No

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 :

28860716565. 1

28860716566. 2

28860716567. 3

28860716568. 4

Question Number : 5 Question Id : 2886074157 Question Type : MCQ Option Shuffling : No

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 :

28860716569. 1

28860716570. 2

28860716571. 3

28860716572. 4

Question Number : 6 Question Id : 2886074158 Question Type : MCQ Option Shuffling : No

Correct Marks : 1 Wrong Marks : 0

Which of the following is an example of a deterministic algorithm?

- a. PCA
- b. K-Means
- c. K-medoid
- d. None of the above

Options :

28860716573. 1

28860716574. 2

28860716575. 3

28860716576. 4

Question Number : 7 Question Id : 2886074159 Question Type : MCQ Option Shuffling : No  
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 :

28860716577. 1

28860716578. 2

28860716579. 3

28860716580. 4

Question Number : 8 Question Id : 2886074160 Question Type : MCQ Option Shuffling : No  
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 :

28860716581. 1

28860716582. 2

28860716583. 3

28860716584. 4

Question Number : 9 Question Id : 2886074161 Question Type : MCQ Option Shuffling : No  
Correct Marks : 1 Wrong Marks : 0

Regarding the distribution of the training and testing data, they follow

- a. Same distribution
- b. Different distribution
- c. The mean of training distribution is double of testing distribution
- d. None of the above

Options :

28860716585. 1

28860716586. 2

28860716587. 3

28860716588. 4

Question Number : 10 Question Id : 2886074162 Question Type : MCQ Option Shuffling : No  
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 :

28860716589. 1

28860716590. 2

28860716591. 3

28860716592. 4

Question Number : 11 Question Id : 2886074163 Question Type : MCQ Option Shuffling : No  
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 :

28860716593. 1

28860716594. 2

28860716595. 3

28860716596. 4

Question Number : 12 Question Id : 2886074164 Question Type : MCQ Option Shuffling : No  
Correct Marks : 1 Wrong Marks : 0

The correlation coefficient is used to determine:

- a. A specific value of the y-variable given a specific value of the x-variable
- b. A specific value of the x-variable given a specific value of the y-variable
- c. The strength of the relationship between the x and y variables
- d. None of these

Options :

28860716597. 1

28860716598. 2

28860716599. 3

28860716600. 4

Question Number : 13 Question Id : 2886074165 Question Type : MCQ Option Shuffling : No  
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 :

28860716601. 1

28860716602. 2

28860716603. 3

28860716604. 4

Question Number : 14 Question Id : 2886074166 Question Type : MCQ Option Shuffling : No  
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 :

28860716605. 1

28860716606. 2

28860716607. 3

28860716608. 4

Question Number : 15 Question Id : 2886074167 Question Type : MCQ Option Shuffling : No  
Correct Marks : 1 Wrong Marks : 0

If there is a very strong correlation between two variables then the correlation coefficient must be

- a. Any value larger than 1
- b. Much smaller than 0, if the correlation is negative
- c. Much larger than 0, regardless of whether the correlation is negative or positive
- d. None of these alternatives is correct.

Options :

28860716609. 1

28860716610. 2

28860716611. 3

28860716612. 4

Question Number : 16 Question Id : 2886074168 Question Type : MCQ Option Shuffling : No  
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 :

28860716613. 1

28860716614. 2

28860716615. 3

28860716616. 4

Question Number : 17 Question Id : 2886074169 Question Type : MCQ Option Shuffling : No  
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. a and b both
- d. None of above

Options :

28860716617. 1

28860716618. 2

28860716619. 3

28860716620. 4

Question Number : 18 Question Id : 2886074170 Question Type : MCQ Option Shuffling : No

Correct Marks : 1 Wrong Marks : 0

In regression, the equation that describes how the response variable (y) is related to the explanatory variable (x) is:

- a. the correlation model
- b. the regression model
- c. used to compute the correlation coefficient
- d. None of these alternatives is correct.

Options :

28860716621. 1

28860716622. 2

28860716623. 3

28860716624. 4

Question Number : 19 Question Id : 2886074171 Question Type : MCQ Option Shuffling : No  
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 :

28860716625. 1

28860716626. 2

28860716627. 3

28860716628. 4

Question Number : 20 Question Id : 2886074172 Question Type : MCQ Option Shuffling : No  
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 :

28860716629. 1



28860716630. 2

28860716631. 3

28860716632. 4

Question Number : 21 Question Id : 2886074173 Question Type : MCQ Option Shuffling : No  
Correct Marks : 1 Wrong Marks : 0

What are the factors affecting the performance of machine learning algorithms

- a.Types of learning
- b.Background knowledge
- c.Optimization
- d.All the above

Options :

28860716633. 1

28860716634. 2

28860716635. 3

28860716636. 4

Question Number : 22 Question Id : 2886074174 Question Type : MCQ Option Shuffling : No  
Correct Marks : 1 Wrong Marks : 0

Localization is needed to estimate

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

Options :

28860716637. 1

28860716638. 2

28860716639. 3

28860716640. 4

Question Number : 23 Question Id : 2886074175 Question Type : MCQ Option Shuffling : No  
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 :

28860716641. 1

28860716642. 2

28860716643. 3

28860716644. 4

Question Number : 24 Question Id : 2886074176 Question Type : MCQ Option Shuffling : No

Correct Marks : 1 Wrong Marks : 0

.Which of the following is a type of unsupervised learning?

- a.Clustering
- b.Probability distribution estimation
- c.Dimension reduction
- d.All the above

Options :

28860716645. 1

28860716646. 2

28860716647. 3

28860716648. 4

Question Number : 25 Question Id : 2886074177 Question Type : MCQ Option Shuffling : No

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 :

28860716649. 1

28860716650. 2

28860716651. 3

28860716652. 4

Question Number : 26 Question Id : 2886074178 Question Type : MCQ Option Shuffling : No  
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 :

28860716653. 1

28860716654. 2

28860716655. 3

28860716656. 4

Question Number : 27 Question Id : 2886074179 Question Type : MCQ Option Shuffling : No  
Correct Marks : 1 Wrong Marks : 0

which one of the following is a partitional clustering technique:

- a.K-means
- b.DB-Scan
- c.Single Linkage
- d.Complete Linkage

Options :

28860716657. 1

28860716658. 2

28860716659. 3

28860716660. 4

Question Number : 28 Question Id : 2886074180 Question Type : MCQ Option Shuffling : No  
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 :

28860716661. 1

28860716662. 2

28860716663. 3

28860716664. 4

Question Number : 29 Question Id : 2886074181 Question Type : MCQ Option Shuffling : No

Correct Marks : 1 Wrong Marks : 0

Friis transmission formula is utilized to measure

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

Options :

28860716665. 1

28860716666. 2

28860716667. 3

28860716668. 4

Question Number : 30 Question Id : 2886074182 Question Type : MCQ Option Shuffling : No

Correct Marks : 1 Wrong Marks : 0

K-means has problems when clusters are of different

- a.Sizes
- b.Densities
- c.Non-globular shapes
- d.All of the above

Options :

28860716669. 1

28860716670. 2

28860716671. 3

28860716672. 4

Question Number : 31 Question Id : 2886074183 Question Type : MCQ Option Shuffling : No

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 :

28860716673. 1

28860716674. 2

28860716675. 3

28860716676. 4

Question Number : 32 Question Id : 2886074184 Question Type : MCQ Option Shuffling : No  
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 :

28860716677. 1

28860716678. 2

28860716679. 3

28860716680. 4

Question Number : 33 Question Id : 2886074185 Question Type : MCQ Option Shuffling : No  
Correct Marks : 1 Wrong Marks : 0

Which of the following is true about K-means and K-medoid?

- a) Both are sensitive to noise
- b) K-means is sensitive to noise but K-medoid not.
- c) K-medoid is sensitive to noise but K-means not.
- d) Neither K-means nor K-medoid is sensitive to noise

Options :

28860716681. 1

28860716682. 2

28860716683. 3

28860716684. 4

Question Number : 34 Question Id : 2886074186 Question Type : MCQ Option Shuffling : No  
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 :

28860716685. 1

28860716686. 2

28860716687. 3

28860716688. 4

Question Number : 35 Question Id : 2886074187 Question Type : MCQ Option Shuffling : No  
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 :

28860716689. 1

28860716690. 2

28860716691. 3

28860716692. 4

Question Number : 36 Question Id : 2886074188 Question Type : MCQ Option Shuffling : No  
Correct Marks : 1 Wrong Marks : 0

The visualization of hierarchical clustering technique is called:

- a.Dendogram
- b.Instragram
- c.Ontology
- d. Tree

Options :

28860716693. 1

28860716694. 2

28860716695. 3

28860716696. 4

Question Number : 37 Question Id : 2886074189 Question Type : MCQ Option Shuffling : No  
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 :

28860716697. 1

28860716698. 2

28860716699. 3

28860716700. 4

Question Number : 38 Question Id : 2886074190 Question Type : MCQ Option Shuffling : No  
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 :

28860716701. 1

28860716702. 2

28860716703. 3

28860716704. 4

Question Number : 39 Question Id : 2886074191 Question Type : MCQ Option Shuffling : No  
Correct Marks : 1 Wrong Marks : 0

In single linkage clustering, distance between two clusters is

- a. Minimum distance between any two points in two different clusters
- b. Maximum distance between any two points in two different clusters
- c. Average distance between all points in two different clusters
- d. None of the above

Options :

28860716705. 1

28860716706. 2

28860716707. 3

28860716708. 4

Question Number : 40 Question Id : 2886074192 Question Type : MCQ Option Shuffling : No  
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 :

28860716709. 1

28860716710. 2

28860716711. 3

28860716712. 4

Question Number : 41 Question Id : 2886074193 Question Type : MCQ Option Shuffling : No  
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 :

28860716713. 1

28860716714. 2

28860716715. 3

28860716716. 4

Question Number : 42 Question Id : 2886074194 Question Type : MCQ Option Shuffling : No  
Correct Marks : 1 Wrong Marks : 0



What is the strength of Single linkage clustering?

- a. It can handle non-elliptical shapes
- b. Less susceptible to noise
- c. Less susceptible to outliers
- d. None of the above

Options :

28860716717. 1

28860716718. 2

28860716719. 3

28860716720. 4

Question Number : 43 Question Id : 2886074195 Question Type : MCQ Option Shuffling : No  
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 :

28860716721. 1

28860716722. 2

28860716723. 3

28860716724. 4

Question Number : 44 Question Id : 2886074196 Question Type : MCQ Option Shuffling : No  
Correct Marks : 1 Wrong Marks : 0

In Dempster-Shafer theory, we consider

- a) Some possible outcomes
- b) All possible outcomes
- c) No possible outcome
- d) None of these

Options :

28860716725. 1

28860716726. 2

28860716727. 3

28860716728. 4

Question Number : 45 Question Id : 2886074197 Question Type : MCQ Option Shuffling : No

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 :

28860716729. 1

28860716730. 2

28860716731. 3

28860716732. 4

Question Number : 46 Question Id : 2886074198 Question Type : MCQ Option Shuffling : No

Correct Marks : 1 Wrong Marks : 0

Belief in K: The belief in element K of Power Set is the \_\_\_ of masses of element which are subsets of K.

- a) Sum
- b) Product
- c) Difference
- d) None of these

Options :

28860716733. 1

28860716734. 2

28860716735. 3

28860716736. 4

Question Number : 47 Question Id : 2886074199 Question Type : MCQ Option Shuffling : No

Correct Marks : 1 Wrong Marks : 0

Sniffing cannot be prevented in Wi-Fi network. statement is

- a) True
- b) False
- c) Cannot be said
- d)None of these

Options :

28860716737. 1

28860716738. 2

28860716739. 3

28860716740. 4

Question Number : 48 Question Id : 2886074200 Question Type : MCQ Option Shuffling : No  
Correct Marks : 1 Wrong Marks : 0

If  $P(\text{data}|\text{sensor1}) = 0.9$ ,  $P(\text{data}) = 0.3$  and  $P(\text{sensor1}) = 0.3$ , what is the probability of  $P(\text{sensor1}|\text{data})$ ?

- a) 0.7
- b) 0.8
- c) 0.9
- d) None of these

Options :

28860716741. 1

28860716742. 2

28860716743. 3

28860716744. 4

Question Number : 49 Question Id : 2886074201 Question Type : MCQ Option Shuffling : No  
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 :

28860716745. 1

28860716746. 2

28860716747. 3

28860716748. 4

Question Number : 50 Question Id : 2886074202 Question Type : MCQ Option Shuffling : No  
Correct Marks : 1 Wrong Marks : 0

Ignorance is reduced in this theory by adding more and more evidences. The statement is

- a) True
- b) False
- c) Cannot be said
- d) None of these

Options :

28860716749. 1

28860716750. 2

28860716751. 3

28860716752. 4

Question Number : 51 Question Id : 2886074203 Question Type : MCQ Option Shuffling : No  
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 :

28860716753. 1

28860716754. 2

28860716755. 3

28860716756. 4

Question Number : 52 Question Id : 2886074204 Question Type : MCQ Option Shuffling : No  
Correct Marks : 1 Wrong Marks : 0

DST has not much lower level of ignorance. The statement is

- a) True
- b) False
- c) Cannot be said
- d) None of these

Options :

28860716757. 1

28860716758. 2

28860716759. 3

28860716760. 4

Question Number : 53 Question Id : 2886074205 Question Type : MCQ Option Shuffling : No  
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 :

28860716761. 1

28860716762. 2

28860716763. 3

28860716764. 4

Question Number : 54 Question Id : 2886074206 Question Type : MCQ Option Shuffling : No

Correct Marks : 1 Wrong Marks : 0

The probability of detection should be

- a) Low
- b) High
- c) Moderate
- d) None of these

Options :

28860716765. 1

28860716766. 2

28860716767. 3

28860716768. 4

Question Number : 55 Question Id : 2886074207 Question Type : MCQ Option Shuffling : No

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 :

28860716769. 1

28860716770. 2

28860716771. 3

28860716772. 4

Question Number : 56 Question Id : 2886074208 Question Type : MCQ Option Shuffling : No

Correct Marks : 1 Wrong Marks : 0

The distributed scheme of decision fusion is preferred over centralized scheme in IoT networks. The statement is

- a) False
- b) Partially correct
- c) Correct
- d) None of these

Options :

28860716773. 1

28860716774. 2

28860716775. 3

28860716776. 4

Question Number : 57 Question Id : 2886074209 Question Type : MCQ Option Shuffling : No

Correct Marks : 1 Wrong Marks : 0

The 802.11b have \_\_\_\_\_ non-overlapping channels available.

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

Options :

28860716777. 1

28860716778. 2

28860716779. 3

28860716780. 4

Question Number : 58 Question Id : 2886074210 Question Type : MCQ Option Shuffling : No

Correct Marks : 1 Wrong Marks : 0

For  $M = 5$ ,  $p = 0.6$ ,  $p_0 = 0.3$ ,  $p_1 = 0.65$ , the threshold for centralized scheme is

- a) 6
- b) 7
- c) 8
- d) 9

Options :

28860716781. 1

28860716782. 2

28860716783. 3

28860716784. 4

Question Number : 59 Question Id : 2886074211 Question Type : MCQ Option Shuffling : No

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 :

28860716785. 1

28860716786. 2

28860716787. 3

28860716788. 4

Question Number : 60 Question Id : 2886074212 Question Type : MCQ Option Shuffling : No

Correct Marks : 1 Wrong Marks : 0

Can we use multiple sensors for decision fusion?

- a) Yes
- b) No
- c) May be
- d) None of these

Options :

28860716789. 1

28860716790. 2

28860716791. 3

28860716792. 4

Question Number : 61 Question Id : 2886074213 Question Type : MCQ Option Shuffling : No

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 :

28860716793. 1

28860716794. 2

28860716795. 3

28860716796. 4

Question Number : 62 Question Id : 2886074214 Question Type : MCQ Option Shuffling : No

Correct Marks : 1 Wrong Marks : 0

The distributed scheme is computationally efficient than centralized scheme. The statement is

- a) False
- b) Partially false
- c) True
- d) Partially true

Options :

28860716797. 1

28860716798. 2

28860716799. 3

28860716800. 4

Question Number : 63 Question Id : 2886074215 Question Type : MCQ Option Shuffling : No

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 :

28860716801. 1

28860716802. 2



28860716803. 3

28860716804. 4

Question Number : 64 Question Id : 2886074216 Question Type : MCQ Option Shuffling : No

Correct Marks : 1 Wrong Marks : 0

In fusion, we combine homogeneous sensor data. The statement is

- a) False
- b) Correct
- c) Partially correct
- d) None of these

Options :

28860716805. 1

28860716806. 2

28860716807. 3

28860716808. 4

Question Number : 65 Question Id : 2886074217 Question Type : MCQ Option Shuffling : No

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 :

28860716809. 1

28860716810. 2

28860716811. 3

28860716812. 4

Question Number : 66 Question Id : 2886074218 Question Type : MCQ Option Shuffling : No

Correct Marks : 1 Wrong Marks : 0

$P(x=T_1|Y_0^1) = 0.5$ ,  $P(x=T_1|Y_0^2) = 0.6$ ,  $P(x=T_1|Y_0^1 Y_0^2) = 0.6$ ,  $P(x=T_1|Y_1^1) = 0.7$ ,  $P(x=T_1|Y_1^2) = 0.8$ .

What is unnormalized  $P(x=T_1|Y_1^1 Y_1^2)$ ?

- a) 0.82
- b) 0.92
- c) 1.12
- d) None of these

Options :

28860716813. 1

28860716814. 2

28860716815. 3

28860716816. 4

Question Number : 67 Question Id : 2886074219 Question Type : MCQ Option Shuffling : No  
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 :

28860716817. 1

28860716818. 2

28860716819. 3

28860716820. 4

Question Number : 68 Question Id : 2886074220 Question Type : MCQ Option Shuffling : No  
Correct Marks : 1 Wrong Marks : 0

In Bayesian Method, the order of measurements

- a) Does matter
- b) Does not matter
- c) Partially matter
- d) None of these

Options :

28860716821. 1

28860716822. 2

28860716823. 3

28860716824. 4

Question Number : 69 Question Id : 2886074221 Question Type : MCQ Option Shuffling : No  
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 :

28860716825. 1

28860716826. 2

28860716827. 3

28860716828. 4

Question Number : 70 Question Id : 2886074222 Question Type : MCQ Option Shuffling : No

Correct Marks : 1 Wrong Marks : 0

In Bayesian Method, is it possible to combine data from four sensors?

- a) Yes
- b) No
- c) May be
- d) None of these

Options :

28860716829. 1

28860716830. 2

28860716831. 3

28860716832. 4

Question Number : 71 Question Id : 2886074223 Question Type : MCQ Option Shuffling : No

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 :

28860716833. 1

28860716834. 2

28860716835. 3

28860716836. 4

Question Number : 72 Question Id : 2886074224 Question Type : MCQ Option Shuffling : No  
Correct Marks : 1 Wrong Marks : 0

Which of the following is correct?

- a) We never extract feature in data level fusion
- b) We extract feature and then fuse it in data level fusion
- c) We extract feature and then fuse it in feature level fusion
- d) We do not need data association in fusion

Options :

28860716837. 1

28860716838. 2

28860716839. 3

28860716840. 4

Question Number : 73 Question Id : 2886074225 Question Type : MCQ Option Shuffling : No  
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 :

28860716841. 1

28860716842. 2

28860716843. 3

28860716844. 4

Question Number : 74 Question Id : 2886074226 Question Type : MCQ Option Shuffling : No  
Correct Marks : 1 Wrong Marks : 0

Quantization is a process of mapping a \_\_\_\_\_ range of amplitude of a signal into a finite set of \_\_\_\_\_ amplitudes.

- a) Continuous, discrete
- b) Discrete, continuous
- c) Discrete, discrete
- d) Continuous, continuous

Options :

28860716845. 1

28860716846. 2

28860716847. 3

28860716848. 4

Question Number : 75 Question Id : 2886074227 Question Type : MCQ Option Shuffling : No  
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 :

28860716849. 1

28860716850. 2

28860716851. 3

28860716852. 4

Question Number : 76 Question Id : 2886074228 Question Type : MCQ Option Shuffling : No  
Correct Marks : 1 Wrong Marks : 0

Distortion produced by quantization is directly proportion to \_\_\_\_\_ and inversely proportional to \_\_\_\_\_

- a) Number of levels, step size
- b) Amplitude of the signal, step size
- c) Square of step size, number of levels
- d) Amplitude of the signal, number of levels

Options :

28860716853. 1

28860716854. 2

28860716855. 3

28860716856. 4

Question Number : 77 Question Id : 2886074229 Question Type : MCQ Option Shuffling : No  
Correct Marks : 1 Wrong Marks : 0

In the ARM, PC is implemented using \_\_\_\_\_

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

Options :

28860716857. 1

28860716858. 2

28860716859. 3

28860716860. 4

Question Number : 78 Question Id : 2886074230 Question Type : MCQ Option Shuffling : No

Correct Marks : 1 Wrong Marks : 0

Which of the following is required by K-means clustering?

- a) defined distance metric
- b) number of clusters
- c) initial guess as to cluster centroids
- d) all of the mentioned

Options :

28860716861. 1

28860716862. 2

28860716863. 3

28860716864. 4

Question Number : 79 Question Id : 2886074231 Question Type : MCQ Option Shuffling : No

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 :

28860716865. 1

28860716866. 2

28860716867. 3

28860716868. 4

Question Number : 80 Question Id : 2886074232 Question Type : MCQ Option Shuffling : No  
Correct Marks : 1 Wrong Marks : 0

K-means is not deterministic and it also consists of number of iterations. The statement is

- a) True
- b) False
- c) Cannot be said
- d) None of these

Options :

28860716869. 1

28860716870. 2

28860716871. 3

28860716872. 4

Question Number : 81 Question Id : 2886074233 Question Type : MCQ Option Shuffling : No  
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 :

28860716873. 1

28860716874. 2

28860716875. 3

28860716876. 4

Question Number : 82 Question Id : 2886074234 Question Type : MCQ Option Shuffling : No  
Correct Marks : 1 Wrong Marks : 0

In vector quantization, the decision boundary is given by

- a) Perpendicular line
- b) Bisector
- c) Perpendicular bisector
- d) None of these

Options :

28860716877. 1

28860716878. 2

28860716879. 3

28860716880. 4

Question Number : 83 Question Id : 2886074235 Question Type : MCQ Option Shuffling : No  
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 :

28860716881. 1

28860716882. 2

28860716883. 3

28860716884. 4

Question Number : 84 Question Id : 2886074236 Question Type : MCQ Option Shuffling : No  
Correct Marks : 1 Wrong Marks : 0

Power loss in free space is given by

- a) Squared distance
- b) Cubic of distance
- c) Fourth power of distance
- d) None of these

Options :

28860716885. 1

28860716886. 2

28860716887. 3

28860716888. 4

Question Number : 85 Question Id : 2886074237 Question Type : MCQ Option Shuffling : No  
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 :

28860716889. 1

28860716890. 2

28860716891. 3

28860716892. 4

Question Number : 86 Question Id : 2886074238 Question Type : MCQ Option Shuffling : No  
Correct Marks : 1 Wrong Marks : 0

LEACH protocol is

- a) Low-energy adaptive clustering hirerachy
- b) Low-efficiency adaptive clustering hirerachy
- c) Low-energy average clustering hirerachy
- d) None of these

Options :

28860716893. 1

28860716894. 2

28860716895. 3

28860716896. 4

Question Number : 87 Question Id : 2886074239 Question Type : MCQ Option Shuffling : No  
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 :

28860716897. 1

28860716898. 2

28860716899. 3

28860716900. 4

Question Number : 88 Question Id : 2886074240 Question Type : MCQ Option Shuffling : No

Correct Marks : 1 Wrong Marks : 0

The energy consumption will increase with number of clusters. The statement is

- a) False
- b) True
- c) Cannot be said
- d) None of these

Options :

28860716901. 1

28860716902. 2

28860716903. 3

28860716904. 4

Question Number : 89 Question Id : 2886074241 Question Type : MCQ Option Shuffling : No

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 :

28860716905. 1

28860716906. 2

28860716907. 3

28860716908. 4

Question Number : 90 Question Id : 2886074242 Question Type : MCQ Option Shuffling : No

Correct Marks : 1 Wrong Marks : 0

In LEACH protocol, the optimal number of clusters is function of

- a) Number of nodes
- b) Distance to Base station
- c) Size of network
- d) All of the above

Options :

28860716909. 1

28860716910. 2

28860716911. 3

28860716912. 4

Question Number : 91 Question Id : 2886074243 Question Type : MCQ Option Shuffling : No  
Correct Marks : 1 Wrong Marks : 0

In Cortex-M processors, first step of pipeline is

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

Options :

28860716913. 1

28860716914. 2

28860716915. 3

28860716916. 4

Question Number : 92 Question Id : 2886074244 Question Type : MCQ Option Shuffling : No  
Correct Marks : 1 Wrong Marks : 0

Cluster head dissipates energy to receive signals from the node + aggregate the signals + transmit the aggregate signal to the base station. The statement is

- a) False
- b) True
- c) Cannot be said
- d) None of these

Options :

28860716917. 1

28860716918. 2

28860716919. 3

28860716920. 4

Question Number : 93 Question Id : 2886074245 Question Type : MCQ Option Shuffling : No

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 :

28860716921. 1

28860716922. 2

28860716923. 3

28860716924. 4

Question Number : 94 Question Id : 2886074246 Question Type : MCQ Option Shuffling : No

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 :

28860716925. 1

28860716926. 2

28860716927. 3

28860716928. 4

Question Number : 95 Question Id : 2886074247 Question Type : MCQ Option Shuffling : No

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 :

28860716929. 1

28860716930. 2

28860716931. 3

28860716932. 4

Question Number : 96 Question Id : 2886074248 Question Type : MCQ Option Shuffling : No

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) All of the above

Options :

28860716933. 1

28860716934. 2

28860716935. 3

28860716936. 4

Question Number : 97 Question Id : 2886074249 Question Type : MCQ Option Shuffling : No

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 :

28860716937. 1

28860716938. 2

28860716939. 3

28860716940. 4

Question Number : 98 Question Id : 2886074250 Question Type : MCQ Option Shuffling : No

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 :

28860716941. 1

28860716942. 2

28860716943. 3

28860716944. 4

Question Number : 99 Question Id : 2886074251 Question Type : MCQ Option Shuffling : No  
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 :

28860716945. 1

28860716946. 2

28860716947. 3

28860716948. 4

Question Number : 100 Question Id : 2886074252 Question Type : MCQ Option Shuffling : No  
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 :

28860716949. 1

28860716950. 2

28860716951. 3

28860716952. 4