Variables in probability theory are called

Select one:

a. propositions

b. random variables

c. probabilities

d. fuzzy variables

Feedback

The correct answer is: random variables

Question 2

Correct

Mark 1.00 out of 1.00

Not flaggedFlag question

Question text

A box has 6 black, 4 red, 2 white and 3 blue shirts. What is the probability that 2 red shirts and 1 blue shirt get chosen during a random selection of 3 shirts from the box?

Select one:

a. 18/445

b. 7/15

c. 7/435

d. 7/2730

Feedback

The correct answer is: 18/445

Question 3

Incorrect

Mark 0.00 out of 1.00

Not flaggedFlag question

Question text

What is the probability that it rained yesterday, given all the umbrella observations through today

Select one:

a. Prediction

b. Most likely explanation

c. Filtering

d. Smoothing

Feedback

The correct answer is: Smoothing

Question 4

Incorrect

Mark 0.00 out of 1.00

Not flaggedFlag question

Question text

The fundamental idea of decision theory is that an agent is rational if and only if it chooses the action that yields the highest expected utility, averaged over all possible outcomes of the action. This principle is called

Select one:

a. Mean Expected Utility

b. Minimum Expected Utility

c. Maximum Unexpected Utility

d. Maximum Expected Utility

Feedback

The correct answer is: Maximum Expected Utility

Question 5

Correct

Mark 1.00 out of 1.00

Not flaggedFlag question

Question text

Uncertainty arises because of?

Select one:

a. laziness and erudition

b. laziness and ignorance

c. diligent and ignorance

d. diligent and erudition

Feedback

The correct answer is: laziness and ignorance

Question 6

Incorrect

Mark 0.00 out of 1.00

Not flaggedFlag question

Question text

Filtering or monitoring is

Select one:

a. computing current belief state, given all evidence to date

b. computing prob. of some future state

c. find sequence of states that is most likely to have generated those observations.

d. computing prob. of past state (hindsight)

Feedback

The correct answer is: computing current belief state, given all evidence to date

Question 7

Incorrect

Mark 0.00 out of 1.00

Not flaggedFlag question

Question text

Variables in probability theory are called?

Select one:

a. Probabilities

b. Fuzzy variables

c. Propositions

d. Random variables

Feedback

The correct answer is: Random variables

Question 8

Incorrect

Mark 0.00 out of 1.00

Not flaggedFlag question

Question text

What is meant by probability density function?

Select one:

a. Continuous variable

b. Probability distributions

c. Probability distributions for continuous variables

d. Discrete variable

Feedback

The correct answer is: Probability distributions for continuous variables

Question 9

Incorrect

Mark 0.00 out of 1.00

Not flaggedFlag question

Question text

Inference task are

Select one:

a. None of the above

b. Filtering,Prediction,Smoothing,Most likely explanation

c. Discrete

d. Continuous

Feedback

The correct answer is: Filtering,Prediction,Smoothing,Most likely explanation

Question 10

Correct

Mark 1.00 out of 1.00

Not flaggedFlag question

Question text

Naina receives emails that consists of 18% spam of those emails. The spam filter is 93% reliable i.e., 93% of the mails it marks as spam are actually a spam and 93% of spam mails are correctly labelled as spam. If a mail marked spam by her spam filter, determine the probability that it is really a spam.

Select one:

a. 84%

b. 50%

c. 63%

d. 39%

Feedback

The correct answer is: 50%

Question 11

Incorrect

Mark 0.00 out of 1.00

Not flaggedFlag question

Question text

A problem in mathematics is given to three students A, B and C. If the probability of A solving the problem is 1⁄2 and B not solving it is 1⁄4. The whole probability of the problem being solved is 63⁄64 then what is the probability of solving it?

Select one:

a. 1⁄2

b. 1⁄8

c. 7⁄8

d. 1⁄64

Feedback

The correct answer is: 7⁄8

Question 12

Incorrect

Mark 0.00 out of 1.00

Not flaggedFlag question

Question text

A and B are two events such that P(A) = 0.4 and P(A ∩ B) = 0.2 Then P(A ∩ B) is equal to?

Select one:

a. 0.8

b. 0.2

c. 0.4

d. 0.6

Feedback

The correct answer is: 0.4

Question 13

Incorrect

Mark 0.00 out of 1.00

Not flaggedFlag question

Question text

Prior probabilities refer to

Select one:

a. Degree of belief in propositions in the absense of any other information

b. Degree of belief in propositions in the presence of any other information

c. Degree of belief in probabilities

d. None of the above

Feedback

The correct answer is: Degree of belief in propositions in the absense of any other information

Question 14

Incorrect

Mark 0.00 out of 1.00

Not flaggedFlag question

Question text

First-order Markov process

Select one:

a. P(Et|X0:t, E0:t-1) = P(Et|Xt)

b. P(Xt|X0:t-1) = P(Xt|Xt-1)

c. All

d. P(Et|Xt)

Feedback

The correct answer is: P(Xt|X0:t-1) = P(Xt|Xt-1)

Question 15

Incorrect

Mark 0.00 out of 1.00

Not flaggedFlag question

Question text

Which variables cannot be written in entire distribution as a table?

Select one:

a. Discrete

b. Both discrete and continuous

c. Continuous

d. None of the above

Feedback

The correct answer is: Continuous

Question 16

Incorrect

Mark 0.00 out of 1.00

Not flaggedFlag question

Question text

In what kind of environment uncertainty is inescapable?

Select one:

a. Deterministic and Partially observable environments

b. Fully observable and Dynamic environments

c. Non-deterministic and Partially observable environments

d. Non-deterministic and Fully observable environments

Feedback

The correct answer is: Non-deterministic and Partially observable environments

Question 17

Correct

Mark 1.00 out of 1.00

Not flaggedFlag question

Question text

What is used for probabilty theory sentences?

Select one:

a. Conditional logic

b. None of the above

c. Extension of propositional logic

d. Logic

Feedback

The correct answer is: Extension of propositional logic

Question 18

Correct

Mark 1.00 out of 1.00

Not flaggedFlag question

Question text

Hidden Markov models are especially known for?

Select one:

a. All the above

b. speech, handwriting, gesture recognition

c. part of speech tagging

d. musical score&amp;bioinformatics.

Feedback

The correct answer is: All the above

Question 19

Incorrect

Mark 0.00 out of 1.00

Not flaggedFlag question

Question text

A meeting has 12 employees. Given that 8 of the employees is a woman, find the probability that all the employees are women?

Select one:

a. 1235

b. 2/9

c. 1/8

d. 11/23

Feedback

The correct answer is: 1/8

Question 20

Correct

Mark 1.00 out of 1.00

Not flaggedFlag question

Question text

To define Markov model, the following probabilities have to be specified:

Select one:

a. transition,initial probabilities

b. None of the above

c. Continuous probabilities

d. Degree of proposition

Feedback

The correct answer is: transition,initial probabilities