

**Question No: 1 ( Marks: 1 ) - Please choose one**  
Which one is NOT the feature of Robot?

- ▶ Reasoning, dealing with uncertainty
- ▶ Vision, learning
- ▶ Autonomy, physical Intelligence
- ▶ **None (Page 204)**

**Question No: 2 ( Marks: 1 ) - Please choose one**  
Robotics have active contributions from\_\_\_\_\_

- ▶ Biology
- ▶ Psychology
- ▶ Mathematics
- ▶ **All of the given (Page 204)**

**Question No: 3 ( Marks: 1 ) - Please choose one**  
In ANNs, MSE is known as

- ▶ Most squared error
- ▶ **Mean squared error (Page 189)**
- ▶ Medium squared error
- ▶ None of the given

**Question No: 4 ( Marks: 1 ) - Please choose one**

Which one is the advantage of Neural Network.

- ▶ **Good for generalization (Page 187)**
- ▶ The power of ANNs lie in their parallel architecture
- ▶ Less defined rules to build a natural network
- ▶ Knowledge implicit

**Question No: 5 ( Marks: 1 ) - Please choose one**

A single layer perceptron cannot perform pattern classification on linearly separable patterns.

- ▶ True
- ▶ **False (Page 186)**

**Question No: 6 ( Marks: 1 ) - Please choose one**

The soma and the enclosed nucleus in neuron play a significant role in the processing of incoming and outgoing data.

- ▶ True
- ▶ **False (Page 181)**

**Question No: 7 ( Marks: 1 ) - Please choose one**

The Entropy is 1 when the collection contains number of positive examples \_\_\_\_\_ to/than negative examples.

- ▶ **Equal (Page 177)**
- ▶ Greater
- ▶ Less
- ▶ None of the given

**Question No: 8 ( Marks: 1 ) - Please choose one**

In all calculations involving Entropy we define \_\_\_\_\_ to be \_\_\_\_\_

- ▶  **$0 \log 0, 0$  (Page 177)**
- ▶  $0 \log 10, 1$
- ▶  $0 \log 0, 1$
- ▶  $1 \log 1, 1$

**Question No: 9 ( Marks: 1 ) - Please choose one**

If the true output of a concept  $[c(x_i)]$  is 1 or 0 for an instance, then the output by our hypothesis  $[h(x_i)]$  is 1 or 0 as well, respectively.

- ▶ **True (Page 177)**
- ▶ False

**Question No: 10 ( Marks: 1 ) - Please choose one**

Inductive learning is based on the knowledge that if something happens a lot it is likely to be generally

- ▶ **True (Page 160)**
- ▶ False
- ▶ Ambiguous
- ▶ None of the given

**Question No: 11 ( Marks: 1 ) - Please choose one**

Machine learning typically follows \_\_\_\_\_ phases according to Finlay.

- ▶ 2
- ▶ **3 (Page 160)**
- ▶ 4
- ▶ 5

**Question No: 12 ( Marks: 1 ) - Please choose one**

Which statement about learning is true:

- ▶ Learning is constructing or modifying representations of what is being experienced
- ▶ Learning denotes changes in a system that enables a system to do the same task more efficiently the next time.
- ▶ Learning is making useful changes in our minds.
- ▶ **All of the given (Page 159)**

**Question No: 13 ( Marks: 1 ) - Please choose one**

The most popular defuzzification method is the centroid calculation.

- ▶ **True (Page 158)**
- ▶ False

**Question No: 14 ( Marks: 1 ) - Please choose one**

\_\_\_\_\_ is the process by which the fuzzy sets that represent the outputs of each rule are combined into a single fuzzy set.

▶ **Aggregation (Page 157)**

- ▶ Fuzzification
- ▶ Implication
- ▶ None of the given

**Question No: 15 ( Marks: 1 ) - Please choose one**

If there are multiple parts to the antecedent, apply fuzzy logic \_\_\_\_\_ and resolve the antecedent to a single number between 0 and 1.

▶ **Operators (Page 153)**

- ▶ Rules
- ▶ Conditions
- ▶ None of the given

**Question No: 16 ( Marks: 1 ) - Please choose one**

Usually a \_\_\_\_\_ graph is chosen to represent a fuzzy set.

▶ **Triangular (Page 151)**

- ▶ Circular
- ▶ Conical
- ▶ None of the given

**Question No: 17 ( Marks: 1 ) - Please choose one**

Reasoning in fuzzy logic is just a matter of generalizing the familiar \_\_\_\_\_ logic.

▶ **Boolean (Page 147)**

- ▶ Complex
- ▶ Coognitive
- ▶ Supervised

**Question No: 18 ( Marks: 1 ) - Please choose one**

\_\_\_\_\_ is a subfield of \_\_\_\_\_.

▶ **Computer vision, Artificial Intelligence (Page 203)**

- ▶ Robotics, Artificial Intelligence
- ▶ Soft computing, Artificial Intelligence
- ▶ None of these

**Question No: 19 ( Marks: 1 ) - Please choose one**

Each neuron in the hidden layer is responsible for a different \_\_\_\_\_.

▶ **Line (Page 186)**

- ▶ Layer
- ▶ Phase
- ▶ None of these

**Question No: 20 ( Marks: 1 ) - Please choose one**

\_\_\_\_\_ is the process of formulating the mapping from a given input to an output using Fuzzy logic.

▶ **FIS (Page 153)**

- ▶ PIS
- ▶ Fuzzy logic
- ▶ None of these

**Question No: 21 ( Marks: 1 ) - Please choose one**

Fuzzy logic is a superset of \_\_\_\_\_ logic.

▶ **conventional (Page 147)**

- ▶ positive
- ▶ negative
- ▶ None of these

**Question No: 22 ( Marks: 1 ) - Please choose one**

It was Aristotle who came up with the 'Law of the Excluded Middle'.

▶ **True (Page 145)**

- ▶ False