***Final Term Assignment***

***Artificial Intelligence***

***Time Allowed: 6 hours Marks: 50***

***Note: Attempt all questions. Copying from Internet and one another is strictly prohibited. Such answers will be marked zero.***

***Section A***

***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

***Question No: 2 ( Marks: 1 ) - Please choose one***

Robotics have active contributions from

►Biology  
►Psychology  
►Mathematics  
►All of the given

***Question No: 3 ( Marks: 1 ) - Please choose one***

In ANNs, MSE is known as

**►**Most squared error

►Mean squared error

►Medium squared error

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

Which one is the advantage of Neural Network.

►Good for generalization   
►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

***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

***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***

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

►True

►False

►Ambiguous

►None of the given

***Question No: 9 ( 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

***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

►False

►Ambiguous

►None of the given

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

Machine learning typically follows phases according to Finlay.

►2

►3

►4

►5

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

The most popular defuzzification method is the centroid calculation.

►True

►False

***Question No: 13 ( 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

►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 number between 0 and 1.

and resolve the antecedent to a single

►Operators

►Rules

►Conditions

►None of the given

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

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

logic.

►Computer vision, Artificial Intelligence

►Robotics, Artificial Intelligence

►Soft computing, Artificial Intelligence

►None of these

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

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

►Line

►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

►PIS  
►Fuzzy logic

►None of these

***Question No: 21 ( Marks: 1 ) Fuzzy logic is a superset of***

►conventional (Page 147)

►positive  
► negative

►None of these

***Question No: 22 ( Marks: 1 ) We can get optimal solution given some parameters using Genetic Algorithm.***

►True

►False

***Question No: 23 ( Marks: 1 ) - Please choose one***

Reasoning is based on forming, or inducing a „generalization‟ from a limited set of observations.

►Deductive  
►Abductive

►Analogical  
►Inductive

***Question No: 24 ( Marks: 1 ) - Please choose one***

is the process of deriving logical conclusions from given facts.

►Representation

►Execution  
►Reasoning

►Planning

***Question No: 25 ( Marks: 1 ) - Please choose one***

Identify the correct step used to start design of an expert system.

►Feasibility study

►Problem reorganization

►Scope study  
►Rapid prototyping

***Question No: 26 ( Marks: 1 ) - Please choose one***

Any statement can be fuzzy

►True

►False

***Question No: 27 ( Marks: 1 ) - Please choose one***

If the antecedent is only partially true, then the output fuzzy set is truncated according to the method

►Intrinsic

►Implication

►Boolean  
►None of the given

***Question No: 28 ( Marks: 1 ) - Please choose one***

Choose the fields in which Fuzzy inference systems have been successfully applied:

►automatic control  
►data classification  
►decision analysis  
►All of the given

***Question No: 29 ( Marks: 1 ) - Please choose one***

The degree of truth that we have been talking about is specifically driven out by a function called the function.

►Membership

►Ordinary

►Fuzzy

►Inline

***Question No: 30 ( Marks: 1 ) - Please choose one***

The tractable problems are further divided into structured and problems

►Non-structured

►Complex

►Simple

***Section B (20 marks)***

1. Differ between supervised and unsupervised learning?
2. Write different knowledge Acquisition techniques.
3. Out of different general components of and AI cycle which two components are best closed coupled.
4. How does neural network resemble the human brain.
5. Write down fuzzy statement in everyday life.