



**CS607- Artificial intelligence**  
Solved MCQS  
From Final term Papers

**July 10,2013**

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**PSMD01**

**FINAL TERM EXAMINATION**  
**Spring 2012**  
**CS607- Artificial intelligence**

**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

دنیا میں سب سے مشکل کام اپنی اصلاح اور سب سے آسان کام دوسروں پر نکتہ چینی کرنا ہے

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**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)**

- ▶  $0 \log 10, 1$
- ▶  $0 \log 0, 1$
- ▶  $1 \log 1, 1$

برى صحبت سے تنہائی بہتر ہے اور تنہائی سے نیک صحبت بہتر ہے

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**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

اللہ کا خوف سب سے بڑی دانائی ہے

**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

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**FINAL TERM EXAMINATION**  
**Spring 2011**  
**CS607- Artificial intelligence**

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

We can get optimal solution given some parameters using Genetic Algorithm.

- ▶ **True (Page 79)**
- ▶ False

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

\_\_\_\_\_ reasoning is based on forming, or inducing a ‘generalization’ from a limited set of observations.

- ▶ Deductive
- ▶ Abductive
- ▶ Analogical
- ▶ **Inductive (Page 102)**

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

\_\_\_\_\_ is the process of deriving logical conclusions from given facts.

- ▶ Representation
- ▶ Execution
- ▶ **Reasoning (Page 102)**
- ▶ Planning

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

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

- ▶ **Feasibility study (Page 129)**
- ▶ Problem reorganization
- ▶ Scope study
- ▶ Rapid prototyping

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

Any statement can be fuzzy

- ▶ **True (Page 147)**
- ▶ False

**Question No: 6 ( 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 (Page 153)**
- ▶ Boolean
- ▶ None of the given

**Question No: 7 ( 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 (Page 153)**

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

Fuzzy logic is actually a superset of conventional Boolean logic

- ▶ **TRUE (Page 150)**
- ▶ FALSE

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

A classical set is a container, which wholly includes or wholly excludes any given element.

- ▶ **TRUE (Page 145)**
- ▶ FALSE

**Question No: 10 ( 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 (Page 149)**
- ▶ Ordinary
- ▶ Fuzzy
- ▶ Inline

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

The tractable problems are further divided into structured and \_\_\_\_\_ problems

- ▶ Non-structured
- ▶ **Complex (Page 166)**
- ▶ Simple

## CS607 – Final Term Quizzes

### CS607 – Quiz No.2 (18 June 2013)

**Question # 1 of 10 (Total Marks: 1) Please Select One**

Expert system can be expressed as:

- i. It provides tools for the management, delivery, tracking, and assessment of various types of employee learning and training
- ii. The set of business processes, culture, and behavior required to obtain value from investments in information systems
- iii. Used for finding the optimal solution for a specific problem by examining a very large number of possible solutions for that problem

**iv. Intelligent technique for capturing tacit knowledge in a very specific and limited domain of human expertise, this knowledge is converted to rules that can be used throughout the entire organization**

[Click here for detail](#)

**Question # 2 of 10 (Total Marks: 1) Please Select One**

Clips command for adding two numbers 3 and 4 is.

**i. CLIPS> (+ 3 4) (Page 133)**

ii. CLIPS> (3 4 +)

**Question # 3 of 10 (Total Marks: 1) Please Select One**

Reasoning in forward chaining is known as:

**Data-driven reasoning (Page 123)**

Rule-driven reasoning

Intelligence-driven reasoning

Goal-driven reasoning

**Question # 4 of 10 (Total Marks: 1) Please Select One**

Sequence wise main phases of Linear model used in developing expert systems are given below.

Planning, Knowledge acquisition and analysis, System evaluation

**Planning, Knowledge acquisition and analysis, Knowledge design (Page 129)**

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**Question # 5 of 10 (Total Marks: 1) Please Select One**

Identify the step involved in planning phase.

1. Knowledge acquisition from expert
2. Coding
3. **Resource allocation (Page 129)**
4. Identify concrete knowledge element

**Question # 6 of 10 (Total Marks: 1) Please Select One**

Identify the correct definition of linear model given below.

1. **A linear sequence of steps is applied repeatedly in an iterative fashion to develop the software models. (Page 129)**
2. Non sequential sequence of steps is applied repeatedly in an iterative fashion to develop the expert systems.
3. A non linear sequence of steps is applied repeatedly in an iterative fashion to develop the expert systems.

**Question # 7 of 10 (Total Marks: 1) Please Select One**

\_\_\_\_\_ is the part of the system that controls the process of deriving conclusions.

1. A knowledge base
2. A database of facts
3. **An interpreter or inference engine (Page 117)**
4. None of the given

**Question # 8 of 10 (Total Marks: 1) Please Select One**

A rule, which takes a set of inputs and gives advice, as a result, is called

1. Recommendation Rule
2. **Directive Rule (Page 96)**
3. Relation Rule
4. None of the given options

**Question # 9 of 10 (Total Marks: 1) Please Select One**

IF temperature is below 0 THEN weather is cold The above rule is used to represent \_\_\_\_\_

- ▶ Recommendations
- ▶ Directives
- ▶ **Relations (Page 96)**
- ▶ None of the given options

دنیا کی سب سے بڑی فتح نفس پر قابو رکھنا ہے

**Question # 10 of 10 (Total Marks: 1) Please Select One**

Within an expert system, the \_\_\_\_\_ contains facts about a specific subject area and rules that express the reasoning procedures of an expert on the subject.

- ▶ Inference engine
- ▶ Knowledge engineer
- ▶ **Knowledge base** [click here for detail](#)
- ▶ None of the given options

**Question # 1 of 10 (Total Marks: 1) Please Select One**

Using deduction to reach a conclusion from a set of antecedents is called:

- a. Forward chaining
- b. Backward chaining

**Question # 2 of 10 (Total Marks: 1) Please Select One**

Expert system technique where a hypothesis is given at the beginning and the inference engine proceeds to ask the user questions about selected facts until the hypothesis is either confirmed or denied

- a. Network Knowledge
- b. Data mining
- c. **Backward chaining** [Click here for detail](#)
- d. Forward chaining

**Question # 3 of 10 (Total Marks: 1) Please Select One**

In some cases, the rules provide more definite actions such as “move left” or “close door”, in which case the rules are being used to represent \_\_\_\_\_.

- ▶ Recommendations
- ▶ **Directives** (Artificial Intelligence, 3/E) [Click here for detail](#)
- ▶ Relations
- ▶ None of the given options

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## Quiz No.3(Fall 2012)

### Question # 1 of 10 ( Marks: 1 ) - Please choose one

Semantic networks are graphs, with nodes representing \_\_\_\_\_ and arcs representing \_\_\_\_\_ between objects.

#### ► objects, relationships (Page 97)

- relationships, distance
- objects, distance
- distance, relationships

### Question # 2 of 10 ( Marks: 1 ) - Please choose one

What is the correct order for solving a problem using GA

- I. Choose the best individuals from the population for crossover
- II. Choose initial population
- III. Evaluate the fitness of each individual

- I,II,III
- I,III,II
- II,I,III
- II,III,I (Page 84)

### Question # 3 of 10 ( Marks: 1 ) - Please choose one

A statement in conjunctive normal form (CNF) consists of \_\_\_\_\_

#### ► ANDs of Ors. (Page 107)

- ANDs
- Ors
- Ors of ANDs

### Question # 4 of 10 ( Marks: 1 ) - Please choose one

In adversarial search there may occur such a scenario where two opponents also called \_\_\_\_\_ are searching for goal.

#### ► Adversaries (Page 62)

- Friend
- Players
- Intruders

عقل مند کہتا ہے میں کچھ نہیں جانتا جبکہ بے وقوف کہتا ہے کہ میں سب کچھ جانتا ہوں

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**Question # 5 of 10 ( Marks: 1 ) - Please choose one**

In GA, the random process is repeated until an individual with required \_\_\_\_\_ level is found.  
Select correct option:

- ▶ Higher
- ▶ Lower
- ▶ **Fitness (Page 86)**
- ▶ Logical

**Question # 6 of 10 ( Marks: 1 ) - Please choose one**

A function by which we can tell which board position is nearer to our goal is called

- ▶ Alternative function
- ▶ Recursive function
- ▶ Best function
- ▶ **Fitness function (Page 83)**

**Question # 7 of 10 ( Marks: 1 ) - Please choose one**

Mutation can be as simple as just flipping a bit at random or any number of bits

- ▶ **True (Page 79)**
- ▶ False

**Question # 8 of 10 ( Marks: 1 ) - Please choose one**

In Depth First Search the node with the largest value of height will be at the \_\_\_\_\_ priority to be picked.

- ▶ Minimum
- ▶ **Maximum (Page 25)**
- ▶ Zero
- ▶ Both Minimum and maximum

**Question # 9 of 10 ( Marks: 1 ) - Please choose one**

A proposition is the statement of a \_\_\_\_\_.

- ▶ **Fact (Page 98)**
- ▶ Equation
- ▶ Action
- ▶ Theorem

**Question # 10 of 10 ( Marks: 1 ) - Please choose one**

A drawback of FIND-S is that, it assumes the consistency within the training set.

- ▶ **True (Page 173)**
- ▶ False

**Question # 1 of 10 ( Marks: 1 ) - Please choose one**

Decision trees give us disjunctions of conjunctions, that is, they have the form: (A AND B) \_\_\_\_\_ (C AND D).

► **OR (Page 176)**

- AND
- XOR
- None of the given

**Question # 2 of 10 ( Marks: 1 ) - Please choose one**

Hypothesis space uses the \_\_\_\_\_ of the attributes.

► **Conjunctions (AND) (Page 168)**

- Disjunctions (OR)
- Negation (NOR)
- None of the given

**Question # 3 of 10 ( Marks: 1 ) - Please choose one**

Measure of the effectiveness of an attribute in classifying the training data is called.

► **Information Gain (Page 177)**

- Measure Gain
- Information Goal
- None of the given

**Question # 4 of 10 ( Marks: 1 ) - Please choose one**

The first step of FIND-S is to initialize h to the most specific hypothesis in \_\_\_\_\_:  $h = \langle \emptyset, \emptyset \rangle$

► **H (Page 172)**

- I
- J
- K

**Question # 5 of 10 ( Marks: 1 ) - Please choose one**

A concept is the representation of the \_\_\_\_\_ with respect to the given attributes.

- Solution
- **Problem (Page 167)**
- Knowledge
- None of the given

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## Quiz No.4(Fall 2012)

**Question # 1 of 10 ( Marks: 1 ) - Please choose one**

Outputs of learning are determined by the \_\_\_\_\_

▶ **Application (Page 161)**

- ▶ Validation
- ▶ Training
- ▶ None of the given

**Question # 2 of 10 ( Marks: 1 ) - Please choose one**

The Candidate-Elimination algorithm represents the \_\_\_\_\_

▶ **Version space (Page 173)**

- ▶ Solution space
- ▶ Elimination space
- ▶ None of the given

**Question # 3 of 10 ( Marks: 1 ) - Please choose one**

Inductive learning takes examples and generalizes rather than starting with \_\_\_\_\_ knowledge.

▶ **Existing (Page 162)**

- ▶ Inductive
- ▶ Deductive
- ▶ None of the given

**Question # 4 of 10 ( Marks: 1 ) - Please choose one**

The brain is a collection of about 100 \_\_\_\_\_ interconnected neurons.

▶ Million

▶ **Billion (Page 181)**

- ▶ Trillion
- ▶ None of the given

**Question # 5 of 10 ( Marks: 1 ) - Please choose one**

Machine learning is a prerequisite for any mature program of artificial intelligence

▶ **True (Page 160)**

- ▶ False

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**Question # 6 of 10 ( Marks: 1 ) - Please choose one**

Many machine learning systems are classifiers

▶ **True** (Page 161)

▶ False

**Question # 7 of 10 ( Marks: 1 ) - Please choose one**

\_\_\_\_\_ stands for interactive dichotomizer

▶ **ID** (Page 177)

▶ IDC

▶ Int D

▶ None of the given

**Question # 8 of 10 ( Marks: 1 ) - Please choose one**

Crisp set is not a synonym for \_\_\_\_\_

▶ Fuzzy set

▶ Classical set

**Question # 9 of 10 ( Marks: 1 ) - Please choose one**

Fuzzy inference systems (FIS) are NOT associated with a number of names.

▶ True

▶ **False** (Page 153)

**Question # 10 of 10 ( Marks: 1 ) - Please choose one**

Fuzzy inference systems (FIS) have multidisciplinary nature.

▶ True

▶ **False** (Page 153)

**Question # 1 of 10 ( Marks: 1 ) - Please choose one**

\_\_\_\_\_ learning works on existing facts and knowledge and deduces new knowledge from the old.

▶ **Deductive** (Page 162)

▶ Inductive

▶ Application

▶ None of the given

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**Question # 2 of 10 ( Marks: 1 ) - Please choose one**

\_\_\_\_\_ logic lets us define more realistically the true functions that define real world

▶ **Fuzzy (Page 148)**

- ▶ Classical
- ▶ Boolean
- ▶ None of the given

**Question # 3 of 10 ( Marks: 1 ) - Please choose one**

In theoretical computer science there are two main branches of problems:

▶ **Tractable and intractable (Page 165)**

- ▶ Intractable and induction
- ▶ Tractable and induction
- ▶ None of the given

**Question # 4 of 10 ( Marks: 1 ) - Please choose one**

Complex problems usually have well-defined steps

- ▶ True
- ▶ **False (Page 165)**

**Question # 5 of 10 ( Marks: 1 ) - Please choose one**

Entropy characterizes the purity/impurity of an arbitrary collection of examples

- ▶ True
- ▶ **False (Page 177)**

**Question # 6 of 10 ( Marks: 1 ) - Please choose one**

In ANNs, Training is the heart of learning, in which finding the best \_\_\_\_\_ that covers most of the examples is the objective.

▶ **Hypothesis (Page 189)**

- ▶ Neuron
- ▶ Agent
- ▶ Operator

**Question # 7 of 10 ( Marks: 1 ) - Please choose one**

Which one is NOT the phase of machine learning:

- ▶ Training
- ▶ Application
- ▶ Validation
- ▶ **None of the given (Page 189)**



**Question # 8 of 10 ( Marks: 1 ) - Please choose one**

A single perceptron simply draws a line, which is a hyper plan when data is \_\_\_\_\_ than 2 dimensional.

▶ **More (Page 184)**

- ▶ Less
- ▶ Equal
- ▶ None of the given

**Question # 9 of 10 ( Marks: 1 ) - Please choose one**

the input of aggregation is the list of truncated output functions returned by the \_\_\_\_\_ process for each rule.

- ▶ truncation
- ▶ **implication (Page 184)**
- ▶ Aggregation
- ▶ None of the given

**Question # 10 of 10 ( Marks: 1 ) - Please choose one**

Identify the sets in which Member function is used.

- ▶ Crisp set
- ▶ Classical set
- ▶ **Fuzzy set (Page 149)**
- ▶ None of the above

**Question # 1 of 10 ( Marks: 1 ) - Please choose one**

Fuzzy logic is a subset of conventional (Boolean) logic

- ▶ True
- ▶ **False (Page 149)**

**Question # 2 of 10 ( Marks: 1 ) - Please choose one**

The role of tester is often called the critic

- ▶ **True (Page 160)**
- ▶ False

**Question # 3 of 10 ( Marks: 1 ) - Please choose one**

Identify the statement which best defines fuzzy sets.

- ▶ Fuzzy sets, unlike classical sets, restrict themselves to something lying wholly in either set A or in set not-A.
- ▶ Fuzzy sets, like classical sets, restrict themselves to something lying wholly in either set A or in set A.
- ▶ **Fuzzy sets, unlike classical sets, do not restrict themselves to something lying wholly in either set A or in set not-A. (Page 146)**
- ▶ Fuzzy sets, like classical sets, do not restrict themselves to something lying wholly in either set A or in set not-A.

**Question # 4 of 10 ( Marks: 1 ) - Please choose one**

In Fuzzy Inputs we resolve all fuzzy statements in the antecedent to a degree of membership between 0 and \_\_\_\_\_

▶ **1 (Page 152)**

- ▶ 2
- ▶ 3
- ▶ 4

**Question # 5 of 10 ( Marks: 1 ) - Please choose one**

The Multilayer Perceptrons are the most basic artificial neural \_\_\_\_\_

▶ **Network (Page 186)**

- ▶ System
- ▶ Interface
- ▶ None of these

**Question # 6 of 10 ( Marks: 1 ) - Please choose one**

Another expert system named \_\_\_\_\_ was developed by Digital Equipment Corporation, as a computer configuration assistant.

▶ **R1/XCON (Page 112)**

- ▶ MYCIN
- ▶ Dendral
- ▶ R3/XCON

**Question # 7 of 10 ( Marks: 1 ) - Please choose one**

Which one is not the application area of expert system?

- ▶ Diagnosis
- ▶ Prescription
- ▶ Interpretation

▶ **None (Page 114)**

Ref: - Expert systems may be used in a host of application areas including diagnosis, interpretation, prescription, design, planning, control, instruction, prediction and simulation.

**Question # 8 of 10 ( Marks: 1 ) - Please choose one**

An expert system is different from conventional programs in the sense that program control and knowledge are \_\_\_\_\_.

▶ **Separate (Page 121)**

- ▶ Defined
- ▶ Together
- ▶ Common

**Question # 9 of 10 ( Marks: 1 ) - Please choose one**

Which one of the following is involved in an ES development project:

- ▶ The domain expert
- ▶ The knowledge engineer
- ▶ The end user
- ▶ **All of the given (Page 122)**

**Question # 10 of 10 ( Marks: 1 ) - Please choose one**

“A computer program designed to model the problem solving ability of a human expert” is known as ---

- ▶ **Expert system (Page 111)**
- ▶ Intelligent System
- ▶ Echo System
- ▶ Energy System

**Question # 1 of 10 ( Marks: 1 ) - Please choose one**

An expert system may replace the expert or assist the expert

- ▶ **True (Page 113)**
- ▶ False

**Question # 2 of 10 ( Marks: 1 ) - Please choose one**

A ----- is ‘A person who posses the skill and knowledge to solve a specific problem in a manner superior to others’

- ▶ **The domain expert (Page 122)**
- ▶ The knowledge engineer
- ▶ The end user
- ▶ All of the given

**Question # 3 of 10 ( Marks: 1 ) - Please choose one**

Conventional programming focuses on \_\_\_\_\_, while ES programming focuses on \_\_\_\_\_

- ▶ **Solution, Problem (Page 122)**
- ▶ Problem, Solution
- ▶ Problem, Expert
- ▶ Solution, Expert

**Question # 4 of 10 ( Marks: 1 ) - Please choose one**

In backward chaining terminology, the hypothesis to prove is called the \_\_\_\_\_.

- ▶ Proof
- ▶ **Goal (Page 126)**
- ▶ Plan
- ▶ None of the given

## Some More Quizzes

### Question # 1 of 10 ( Marks: 1 ) - Please choose one

Genetic algorithm uses evolutionary techniques, based on function optimization and artificial intelligence, to develop a solution.

- ▶ True [click here for detail](#)
- ▶ False

### Question # 2 of 10 ( Marks: 1 ) - Please choose one

An AI system has a \_\_\_\_\_ component that allows the system to get information from its environment.

- ▶ Planning
- ▶ Perception (Page 89)
- ▶ Learning
- ▶ Execution

### Question # 3 of 10 ( Marks: 1 ) - Please choose one

In the worst case of semantic network, we may need to traverse the entire network and then discover that the requested info \_\_\_\_\_.

- ▶ Does not exist (Page 97)
- ▶ Exists
- ▶ Is incorrect
- ▶ Is correct

### Question # 4 of 10 ( Marks: 1 ) - Please choose one

An AI system must form a meaningful and useful \_\_\_\_\_ of the internal information.

- ▶ Representation (Page 89)
- ▶ Execution
- ▶ Learning
- ▶ Planning

### Question # 5 of 10 ( Marks: 1 ) - Please choose one

Breadth-first search is a good idea when you are confident that the branching factor is\_\_\_\_\_

- ▶ Extremely small
- ▶ Small (Artificial Intelligence, 3/E) [Click here for detail](#)
- ▶ Medium
- ▶ Large

**Question # 6 of 10 ( Marks: 1 ) - Please choose one**

Progressive deepening guarantees to find the solution at a minimum depth like

- ▶ DFS
- ▶ **BFS (Page 37)**
- ▶ None

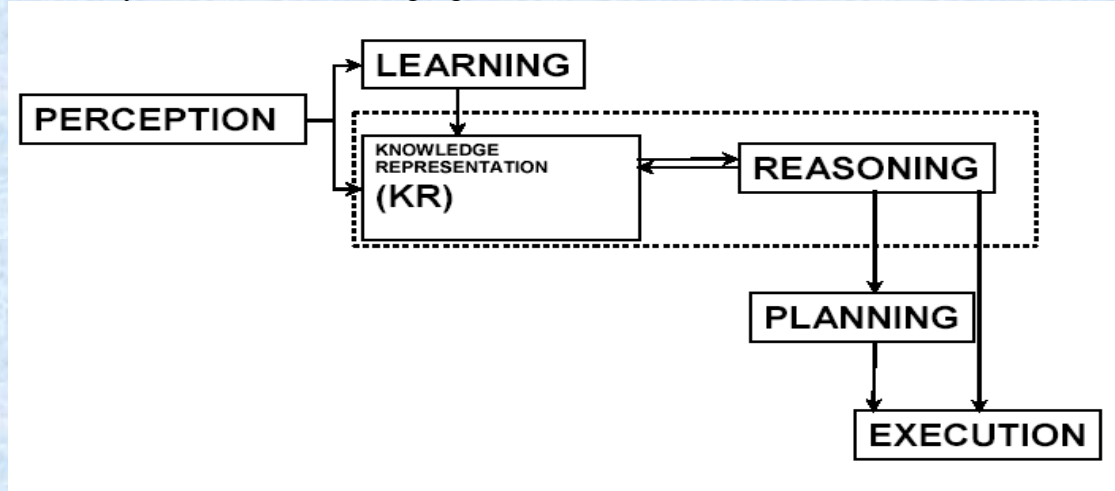
**Question # 7 of 10 ( Marks: 1 ) - Please choose one**

In Adversarial search the goals of the adversaries are usually \_\_\_\_\_ to each other

- ▶ **Contrary (Page 62)**
- ▶ Same
- ▶ None

**Question # 8 of 10 ( Marks: 1 ) - Please choose one**

Which Cycle does the following figure show?



- ▶ **AI Cycle (Page 89)**
- ▶ Design Cycle
- ▶ SDLC
- ▶ None

**Question # 9 of 10 ( Marks: 1 ) - Please choose one**

To infer new information from semantic networks, we can ask questions from nodes.

- ▶ **True (Page 97)**
- ▶ False

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**Question # 10 of 10 ( Marks: 1 ) - Please choose one**

Semantic networks are computationally expensive at \_\_\_\_\_

▶ **Run time (Page 97)**

- ▶ Compile Time
- ▶ Start Time
- ▶ End Time

**Question # 1 of 10 ( Marks: 1 ) - Please choose one**

“The branch of computer science that is concerned with the automation of intelligent behavior” this definition is from:

▶ **Luger and Stubblefield (Page 8)**

- ▶ Winston
- ▶ Schalkoff
- ▶ Bellman

**Question # 2 of 10 ( Marks: 1 ) - Please choose one**

Searching is a formal mechanism to explore

▶ **Alternatives (Page 21)**

- ▶ Recursive
- ▶ Best
- ▶ Fitness

**Question # 3 of 10 ( Marks: 1 ) - Please choose one**

In Artificial Intelligence GA stands for Genetic Algorithms

▶ **True (Page 77)**

- ▶ False

**Question # 4 of 10 ( Marks: 1 ) - Please choose one**

----- is based on forming, or inducing a ‘generalization’ from a limited set of observations

▶ **Inductive reasoning (Page 102)**

- ▶ Deductive reasoning
- ▶ Analogical reasoning
- ▶ Common-sense reasoning

**Question # 5 of 10 ( Marks: 1 ) - Please choose one**

Every graph can be converted into a tree

▶ **True (Page 22)**

- ▶ False

**Question # 6 of 10 ( Marks: 1 ) - Please choose one**

Hill Climbing is basically a ----- with a measure of quality that is assigned to each node in the tree.

▶ **Depth First Search (Page 39)**

- ▶ Breadth First Search
- ▶ Best First Search
- ▶ Beam Search

**Question # 7 of 10 ( Marks: 1 ) - Please choose one**

----- are closely coupled components; each is intrinsically tied to the other.

- i-Knowledge representation
- ii-Reasoning
- iii-Planning
- iv-Execution

- ▶ ii & iii
- ▶ ii & iii
- ▶ iii & iv

▶ **i & ii (Page 89)**

**Question # 8 of 10 ( Marks: 1 ) - Please choose one**

Which one of the problem is more subtle, and consequently, is more frustrating:

- ▶ Foothill problem
- ▶ Plateau
- ▶ **Ridge (Artificial Intelligence, 3/E) [click here for detail](#)**
- ▶ Box

**Question # 9 of 10 ( Marks: 1 ) - Please choose one**

Most of the solution spaces for problems can be represented in a \_\_\_\_\_

▶ **Graph (Page 21)**

- ▶ Table
- ▶ Demo

**Question # 10 of 10 ( Marks: 1 ) - Please choose one**

By getting grips on \_\_\_\_\_ that deal with searching techniques in graphs and trees, problem solving can be performed in an efficient manner.

- ▶ Pseudocode
- ▶ **Algorithms (Page 21)**
- ▶ Charts
- ▶ Graphs

**Question # 1 of 10 ( Marks: 1 ) - Please choose one**

Every graph can be converted into a tree.

▶ **True** (Page 22)

▶ False

**Question # 2 of 10 ( Marks: 1 ) - Please choose one**

In Breadth First Search the node with the largest value of height will be at the \_\_\_\_\_ priority to be picked.

▶ **Maximum** (Page 28)

▶ Minimum

▶ None of the given

**Question # 3 of 10 ( Marks: 1 ) - Please choose one**

Breadth-First Search checks all paths of a given length before moving on to any longer paths.

▶ **True** [Click here for detail](#)

▶ False

**Question # 1 of 10 ( Marks: 1 ) - Please choose one**

The foothill problem occurs whenever there are \_\_\_\_\_ peaks.

▶ High

▶ **Secondary** (Artificial Intelligence, 3/E) [click here for detail](#)

▶ Primary

▶ Deep

**Question # 4 of 10 ( Marks: 1 ) - Please choose one**

The Plateau problem comes up when there is a mostly flat area \_\_\_\_\_ the peaks.

▶ **Separating** (Artificial Intelligence, 3/E) [click here for detail](#)

▶ Joining

▶ Over

▶ None of the given

**Question # 5 of 10 ( Marks: 1 ) - Please choose one**

The paths found by best-first search are likely to be \_\_\_\_\_ than those found with other methods.

▶ None of the given

▶ **Shorter** (Artificial Intelligence, 3/E) [click here for detail](#)

▶ Longer

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**Question # 6 of 10 ( Marks: 1 ) - Please choose one**

In Basic Genetic Algorithm the term mutation refers to a small random \_\_\_\_\_.

- ▶ Number
- ▶ **Change (Page 77)**
- ▶ Operator
- ▶ Operand

**Question # 1 of 10 ( Marks: 1 ) - Please choose one**

Which of the following two components are closely coupled and each is intrinsically tied to the other.

- i. Knowledge representation
- ii. Reasoning
- iii. Execution
- iv. Planning

- ▶ i & iii
- ▶ ii & iii
- ▶ iii & iv
- ▶ **i & ii (Page 89)**

**Question # 7 of 10 ( Marks: 1 ) - Please choose one**

Some essential components of problem solving are Problem statement, \_\_\_\_\_, solution space and Operators

- ▶ Complex State
- ▶ Initial State
- ▶ Intermediate State
- ▶ **Goal State (Page 17)**

**Question # 8 of 10 ( Marks: 1 ) - Please choose one**

The traveling inside a solution space requires something called as \_\_\_\_\_

- ▶ Operands
- ▶ Inner solution
- ▶ Space solution
- ▶ **Operators (Page 18)**

**Question # 9 of 10 ( Marks: 1 ) - Please choose one**

Genetic Algorithms is a search method in which multiple search paths are followed in \_\_\_\_\_

- ▶ Series
- ▶ **Parallel (Page 77)**
- ▶ None of the give
- ▶ Sequential

**Question # 10 of 10 ( Marks: 1 ) - Please choose one**

We use graph to represent problems and their solution spaces.

- ▶ False
- ▶ **True (Page 22)**

**Question # 1 of 10 ( Marks: 1 ) - Please choose one**

Which of the following disciplines provides us with the theories of structure and meaning of language

- ▶ **Linguistic (Page 9)**
- ▶ Philosophy
- ▶ Biology
- ▶ Psychology

**Question # 2 of 10 ( Marks: 1 ) - Please choose one**

In optimal path searches we try to find the \_\_\_\_\_ solution

- ▶ Least
- ▶ Worst
- ▶ Least but not worst
- ▶ **Best (Page 24)**

**Question # 3 of 10 ( Marks: 1 ) - Please choose one**

From discipline \_\_\_\_\_ we have information about the network structure of a human brain and all the theories on functionalities of different human organs.

- ▶ Mathematics
- ▶ **Biology (Page 9)**
- ▶ Computer Science
- ▶ Psychology

**Question # 4 of 10 ( Marks: 1 ) - Please choose one**

Hit and trial is classical approach to solve the \_\_\_\_\_ problem easily

- ▶ **Trivial (Page 15)**
- ▶ Medium

**Question # 5 of 10 ( Marks: 1 ) - Please choose one**

Intelligence id the characteristics of:

- ▶ **Living things (Page 4)**
- ▶ All things
- ▶ None of them
- ▶ All of them

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**Question # 6 of 10 ( Marks: 1 ) - Please choose one**

Intelligence is the ability to

▶ **Think / learn/Plan/ Schedule (Page 5)**

- ▶ Recognize / Remember
- ▶ Problem Solving
- ▶ All of the Above

**Question # 7 of 10 ( Marks: 1 ) - Please choose one**

Ability to tackle ambiguous and fuzzy problems demonstrate

▶ **Intelligence (Page 6)**

- ▶ Non intelligence behavior
- ▶ All of the given
- ▶ None of the given

**Question # 8 of 10 ( Marks: 1 ) - Please choose one**

Can we precisely define Artificial Intelligence?

- ▶ Yes We Can
- ▶ **No we cannot (Page 14)**

**Question # 9 of 10 ( Marks: 1 ) - Please choose one**

The traveling inside solution space requires something called

- ▶ Problem Statement
- ▶ Operands
- ▶ **Operators (Page 18)**
- ▶ Solution Space

**Question # 10 of 10 ( Marks: 1 ) - Please choose one**

In DFS node with the largest value of height will be at Priority

▶ **Maximum (Page 25)**

- ▶ Minimum
- ▶ Zero
- ▶ Least

**Question # 1 of 10 ( Marks: 1 ) - Please choose one**

Try to catch out own thoughts as they go by is

▶ **Introspection (Page 28)**

- ▶ Psychology
- ▶ Both of above
- ▶ None of the above

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**Question # 1 of 10 ( Marks: 1 ) - Please choose one**

Classical way of problem solving

▶ GA

▶ **Generate and Test (Page 15)**

**Question # 2 of 10 ( Marks: 1 ) - Please choose one**

Procedures that search the solution space in an uninformed manner are usually costly with respect to \_\_\_\_\_.

▶ Time

▶ Space

▶ Time and space both

▶ **All of the given (Page 37)**

**Question # 3 of 10 ( Marks: 1 ) - Please choose one**

Best first search is a greedy approach.

▶ **True (Page 47)**

▶ False

**Question # 4 of 10 ( Marks: 1 ) - Please choose one**

Answering the Sequence Problem need

▶ **Intelligence (Page 15)**

▶ Ability to make plan

▶ Ability to schedule

▶ None of the given

**Question # 5 of 10 ( Marks: 1 ) - Please choose one**

IF A THEN B This can be considered to have a similar logical meaning as the following:

▶ **A -> B (Page 99)**

▶ A <-> B

▶ A <- B

▶ None of the given

**Question # 6 of 10 ( Marks: 1 ) - Please choose one**

In the statement "IF A THEN B", B is called

▶ Antecedent

▶ **Consequent (Page 95)**

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**Question # 7 of 10 ( Marks: 1 ) - Please choose one**

In general, the antecedent of a rule compares an object with a possible value, using an operator.

- ▶ True [click here for detail](#)
- ▶ False

**Question # 8 of 10 ( Marks: 1 ) - Please choose one**

Which of the following is a valid example which represents a suitable antecedent in a rule?

- ▶ IF  $x > 3$
- ▶ IF name is "Bob"
- ▶ IF weather is cold
- ▶ All of the given options

**Question # 9 of 10 ( Marks: 1 ) - Please choose one**

From discipline of \_\_\_\_\_ we have the tools and techniques to investigate the human mind and ways to represent the resulting theories

- ▶ Computer Science
- ▶ Biology
- ▶ Mathematics
- ▶ Psychology (Page 9)

**Question # 10 of 10 ( Marks: 1 ) - Please choose one**

Intelligence is the characteristic of

- ▶ Living being (Page 4)
- ▶ All things
- ▶ None of them
- ▶ All of them

**Question # 1 of 10 ( Marks: 1 ) - Please choose one**

\_\_\_\_\_ AI actually tries to recreate the functions of the inside of the brain as opposed to simply emulating behavior

- ▶ Weak
- ▶ Strong (Page 8)
- ▶ Weak and Strong
- ▶ None of the given

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**Question # 2 of 10 ( Marks: 1 ) - Please choose one**

\_\_\_\_\_ AI treats the brain as a black box and just emulates its functionality.

▶ **Weak (Page 8)**

- ▶ Strong
- ▶ Weak and Strong
- ▶ None of the given

**Question # 1 of 10 ( Marks: 1 ) - Please choose one**

Aggregation only occurs once for each output variable, just after the fifth and final step, defuzzification.

▶ **True (Page 157)**

▶ False

جھوٹ رزق کو کھا جاتا ہے

انسان کے لئے بری صحبت سے بڑھ کر بری کوئی چیز نہیں

تم اچھا کرو زمانہ تم کو برا سمجھے یہ اس سے بہتر ہے کہ تم برا کرو اور زمانہ تم کو اچھا سمجھے

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