ANSWER KEY_QP_4

1. The inference engine works on _____.

a. Forward Chaining and backward chaining
b. Backward Chaining
c. Total task chaining
d. Forward Chaining

2. Which environment is called as semi dynamic?
   a) Environment does not change with the passage of time
   b) Agent performance changes
   c) Environment will be changed
   d) **Environment does not change with the passage of time, but Agent performance changes**
3. Which is used to provide the feedback to the learning element?
   a) **Critic**
   b) Actuators
   c) Sensor
   d) None of the mentioned
4. What is the other name of the backward state-space search?
   a) **Regression planning**
   b) Progression planning
   c) State planning
   d) Test planning
5. What is meant by consistent in state-space search?
   a) Change in the desired literals
   b) **Not any change in the literals**
   c) No change in goal state
   d) None of the mentioned
6. What is the problem space of means-end analysis?
   a) **An initial state and one or more goal states**
   b) One or more initial states and one goal state
   c) One or more initial states and one or more goal state
   d) One initial state and one goal state
7. What is state space?
   a) The whole problem
   b) Your Definition to a problem

c) Problem you design

d) **Representing your problem with variable and parameter**

8. A problem solving approach works well for _____

a) 8-Puzzle problem

b) 8-queen problem

c) Finding a optimal path from a given source to a destination

d) **Mars Hover (Robot Navigation)**

9. A production rule consists of _____

a) A set of Rule

b) A sequence of steps

c) **Set of Rule & sequence of steps**

d) Arbitrary representation to problem

10. _____ are mathematical problems defined as a set of objects whose state must satisfy a number of constraints or limitations.

a) **Constraints Satisfaction Problems**

b) Uninformed Search Problems

c) Local Search Problems

d) All of the mentioned

11. Table driven agents with an example:
Size of table, Time required for learning, Autonomy (2.5 m)

Simplex reflex agent with an example. (2.5 m)

12. Three simple rules:

Only one disk can be moved at a time.

Each move consists of taking the upper disk from one of the stacks and placing it on top of another stack. In other words, a disk can only be moved if it is the uppermost disk on a stack.

No larger disk may be placed on top of a smaller disk.

(2 m)

1. Move the first disk from A to C
2. Move the first disk from A to B
3. Move the first disk from C to B
4. Move the first disk from A to C
5. Move the first disk from B to A
6. Move the first disk from B to C
7. Move the first disk from A to C (3 m)

13. Any five real-life applications of Artificial Intelligence.

(5 m)

14. Methods of Problem solving:

General Purpose

Special Purpose (2 m)

Problem characteristics:

a. Deterministic
b. Non-observable
c. Non-Deterministic
d. Unknown state space (3 m)

15. A=4,
B=7,
S=8,
E=3,
L=5,
G=1,and
M=9

Here we are provided with the following information
BASE
+BALL

GAMES

7483
+7455

14938
