



**Kingdom of Saudi Arabia**  
**Ministry of Higher Education**  
**Taibah University**

**Course Title: CS 362 - Intelligent Systems**

**Examination: Mid Term 1**

**Time allowed: 1 hour**

**University Reg. No.:** \_\_\_\_\_

**Name** \_\_\_\_\_

*Choose the most Appropriate Answer for the following Questions*

1. What is Artificial intelligence?

- a) Putting your intelligence into Computer
- b) Programming with your own intelligence
- c) Making a Machine intelligent**
- d) Playing a Game

2. Which is commonly used programming language for AI?

- a) PROLOG**
- b) Java
- c) C++
- d) HTML

3. Artificial Intelligence has its application in the fields

- a)Expert systems
- b) Game Playing
- c) Robotics
- d) All of the above**

4- AI falls into:

- a) Systems that act and think like humans
- b) Systems that act and think rationally
- c) a and b**
- d)None of above

5- Rationality means

- a) Behave like a human
- b) Take the right/ best action to achieve the goals, based on his/its knowledge and belief.**
- c) Act randomly
- d) b and c

6-To pass a Turing test a computer needs to possess many capabilities such as:

- a) Computer vision
- b) Natural language processing
- c) Knowledge representation
- d) All of above

7-The study of the computations that make it possible to perceive, reason, and act. The AI category of the above approach is

- a) Systems that act rationally
- b) Systems that think like humans
- c) Systems that think rationally
- d) Systems that act like humans

8-Knowledge Representation is

- a) A technique to choose the optimal solution from many possible solutions
- b) The Science of translating actual knowledge into a format that can be used by the computer
- c) The ability to decide on a good sequence of actions to achieve our goals.
- d) A process of achieving a specific goal based on the given knowledge.

9-Mechanical and computer devices that perform tedious tasks with high precision is

- a) Expert systems
- b) Natural language processing
- c) Robotics
- d) Neural networks

10-The clouds look dark and heavy,... heavy rain might fall... The above is

- a) Meta knowledge
- b) Structural knowledge
- c) Heuristic knowledge
- d) None of above

11-Which is created by using single propositional symbol?

- a) Complex sentences
- b) Atomic sentences
- c) Composition sentences
- d) None of the mentioned

12-“All basketball players are tall”. When translated into predicate calculus it will be

- a)  $\neg X (\text{basketball\_player}(X) \rightarrow \text{tall}(X))$
- b)  $\exists X (\text{basketball\_player}(X) \rightarrow \text{tall}(X))$
- c)  $\neg \forall X (\text{basketball\_player}(X) \rightarrow \text{tall}(X))$
- d)  $\forall X (\text{basketball\_player}(X) \rightarrow \text{tall}(X))$

13-Whenever someone eats a spicy dish, they're happy. When translated into predicate calculus it will be

- a)  $\forall X \exists F \text{ food}(F) \wedge \text{spicy}(F) \wedge \text{eats}(X,F) \rightarrow \text{happy}(X)$
- b)  $\exists X \forall F \text{ food}(F) \wedge \text{spicy}(F) \wedge \text{eats}(X,F) \rightarrow \text{happy}(X)$
- c)  $\exists X \exists F \text{ food}(F) \wedge \text{spicy}(F) \wedge \text{eats}(X,F) \rightarrow \text{happy}(X)$
- d)  $\forall X \forall F \text{ food}(F) \wedge \text{spicy}(F) \wedge \text{eats}(X,F) \rightarrow \text{happy}(X)$
- d)None of above

14-Unify  $p(a,b)$  and  $p(X,X)$

- a)  $a=X$
- b)  $a=X$  and  $b=X$
- c)  $a$  and  $b$
- d) Fail to unify

15-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

16- The node having no left subtree and right subtree is known as:

- a) Root node
- b) Parent node
- c) Terminal node
- d) Final node

17- It is a class of general purpose search algorithms that operate in a brute force way.

- a) Heuristic search
- b) Constraint satisfaction
- c) Adversarial search
- d) Uninformed search, also called blind search

18- The time complexity of breadth first search is:

- a)  $O(b^m)$
- b)  $O(b^d)$
- c)  $O(b^{b/2})$
- d)  $O(b)$

19- The space complexity of Depth first search is:

- a)  $O(b^m)$
- b)  $O(b^{d/2})$
- c)  $O(bd)$
- d)  $O(2^N)$

20-.A graph is said to be ..... if its edges are assigned with wieghts.

- a) Tagged
- b) Marked

c) Labeled  
d) Sticked