AI - FINAL QUESTION BANK

Helping Others Have Special taste

Questions

1 - It is a way used to represent the knowledge that a computer can understand and use this knowledge to solve the complex problems

A. Knowledge Explanation
B. Knowledge Representation
C. Knowledge Acquisition
D. Otherwise

2 - It is the oldest representation method of the knowledge

A. Frames
B. Object Attribute Value
C. Semantic Networks
D. Logic

3 - It is a symbol of logical representation, which specifies that the statement within its range is true for everything

A. ∃
B. ∀
C. ∨
D. ∧

4 - It describes something or tell something whether this sentence is a noun, or actual, or semi-sentence.

A. Fact
B. Rule
C. Knowledge
D. Information

5 - It is a sentence that can be generalized to a group of things and need to be applied to provide a condition or a set of conditions

A. Fact
B. Rule
C. Knowledge
D. Information

6 - It is a method used to represent knowledge in expert systems and has a group of objects and links.

A. Logic
B. Rules Based
C. Semantic Networks
D. Fames

7 - Consider the following rule and select the true conclusion

If x is father of z,

And y is uncle of z

And z is father of g

And h is female

And h is mother of g

Then:

A. g is son of x
B. g is grandson of x
C. g is brother of z
D. g is grandson of y

8 - Which of the following of FOLP is true for the sentence: Those people that read are not stupid

A. ∀X (read (X) → ¬ stupid(X)).
B. ∃X (read (X) → ¬stupid(X)).
C. ∀X (read (X) ∧ ¬ stupid(X)).
D. ∃x (read (X) ∨ ¬ stupid(X)).

9 - It is used in building and programming neural networks.

A. Abduction Technique
B. Deduction Technique
C. Induction Technique
D. Otherwise

10 - Which of the following is a Systematic Technique

A. Best First search technique
B. Hill Climbing Algorithm
C. Depth-First search technique
D. All the above

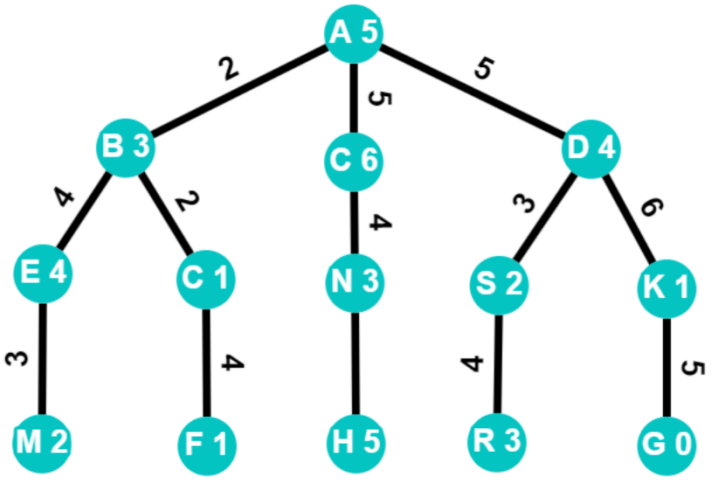
11 - The searching in this technique means searching for the path that leads to the goal at the minimal cost.

A. Abduction Technique
B. Systematic Technique
C. Optimal Technique
D. Deduction Technique

12 - It does not have the ability to keep previous nodes because there is no memory

A. Breadth-First Search(BFS)
B. Hill Climbing Algorithm
C. Depth-First Search(BFS)
D. Best First Algorithm

13 - What the path and cost to riche from A to G by using A Algorithm



A. Path: A0→ B2→E4→ M3→ D14 → K6→ G5 Cost=0+2+4+3+14+6+5=34

B. Path:A0→B2→ C2→ F4→ D13→ K6→ G5 Cost=0+2+2+4+13+6+5=32

C. Path:A0→B2→C2→F4→D13→S3→K6→G5 Cost=0+2+2+4+13+3+9+5=36

D. Otherwise

14 - By using Best First Algorithm, what is the path and cost to riche the goal

A. Path: $S_0 \rightarrow C_4 \rightarrow N_2 \rightarrow B_3 \rightarrow D_{14} \rightarrow M_4 \rightarrow R_4 \rightarrow G_1$

Cost=0+4+2+3+14+4+4+1=32

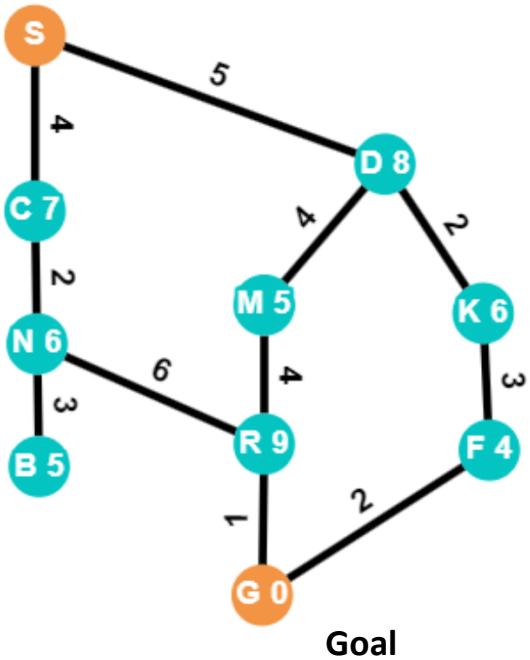
B. Path: $S_0 \rightarrow C_4 \rightarrow N_2 \rightarrow B_3 \rightarrow D_{14} \rightarrow K_2 \rightarrow F_3 \rightarrow G_2$

Cost=0+4+2+3+14+2+3+2=30

C. Path: $S_0 \rightarrow C_4 \rightarrow N_2 \rightarrow B_3 \rightarrow D1_4 \rightarrow M_4 \rightarrow K_6 \rightarrow F_3 \rightarrow G_2$

Cost=0+4+2+3+14+4+6+3+2=38

D. Otherwise



15 - Write the atomic sentence to the following sentence:

jon married marry

A. married(Jon and marry).
B. married(marry.jon).
C. married (jon, marry).
D. Otherwise

16 - To write the following sentence by Prolog language, we use:

A man is happy if he is rich and famous

A. hapy (man):- rich(man),feamus(man).
B. rich (man),feamus(man):- hapy(man),
C. hapy (X):- rich(man),feamus(man).
D. hapy (X):- rich(X),feamus(X).

The following K.B. represents the name and three marks of three students in the courses: Biology, Chemistry, and Physics respectively.

student(ahmed,80,70,80).

student(omr,70,70,50).

student(hany,90,60,80).

Which of the following goals in questions (Q.17 - Q.21)is used to:

17 - Calculate the marks sum of the student

A. student(B, Y, biology), student(C, Y, chemistry), student(P, Y, physics),S=B+C+P.
B. student(Y, B, biology), student(Y, C, chemistry), student(Y, P, physics),S=B+C+P.
C. sum(S,Y):- student (Y, B, C, P), S=B+C+P.
D. Otherwise

18 - Find out: What are the names of students who scored 90 in Biology

A. student(X, 90,_,_).
B. mark(X, 90,_,_).
C. students(X, 90, C, P).
D. Otherwise

19 - Find out: What is the marks sum of the student omr

A. student(omr, A, B, C), sum=A+B+C.
B. sum(student(omr, A, B, C),S), S=A+B+C.
C. student(omr,70,70,50), sum 70+70+50.
D. Otherwise

20 - Find out: What are the names of successful students

A. student (X, A, B, C,S), S>=180.
B. student (X, A, B, C), A+B+C>=180.
C. student (X, A, B, C, S), S = A+B+C, S>=180.
D. Student (X, A, B, C), S = A+B+C, S>=180.

21 - Find out: What are the names of students who can be classified in the Department of Chemistry

A. student(N,B,C,P),B>=85, C>=95, S>=200, write(N),nl,fail.
B. student(N,B,C,P),B>=85, C>=95, (B+C+P)>=200, write(N),nl, fail.
C. B>=85, C>=95, S>=200, write (N),nl,fail.
D. B>=85, C>=95, (B+C+P)>=200, write (N), nl, fail.

22 - By Python programming, how to blur an image by using Simple blur technique:

A. im = image.open ("xxx.jpg")

   im = image.filter(ImageFilter.BLUR)

B. im = image.open ("xxx.jpg")

   im= im.filter(BLUR.ImageFilter)

C. im = image.open("xxx.jpg")

   im.filter(ImageFilter.BLUR)

D. im = image.open ("xxx.jpg")

   im = im.filter(ImageFilter.BLUR)

23 - Consider the following code:

```
draw.ellipse((100, 50, 400, 300), fill=(255, 0, 0), outline=(0, 0, 0))
```

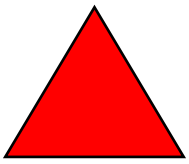
And what is the length of the horizontal and vertical diameter

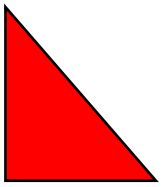
A. 400,300
B. 250,300
C. 300,250
D. 350,200

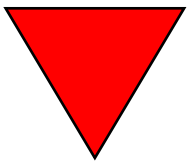
24 - Consider the following code:

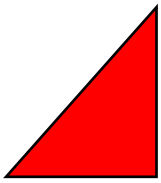
```
draw.polygon( ((200, 200), (300, 200), (300, 50)), fill=(255, 0, 0),outline=(0, 0, 0))
```

And what is the form of the polygon

A. 

C. 

B. 

D. 

25 - Which of the following generations, has artificial intelligence been associated with computers?

A. Second
B. First
C. Fifth
D. Third

26 - Any of the following is a type of machine learning which models itself after the human brain

A. Expert Systems
B. Machine Learning
C. Neural Networks
D. Image Processing

27 - _____ are programs that contain a huge amount of information owned by a human in a specific field.

A. Expert Systems
B. Machine Learning
C. Neural Networks
D. Images Processing

28 - Which of the following AI applications provide the computer with optical sensors that can identify the persons and forms?

A. Expert Systems
B. Machine Learning
C. Neural Networks
D. image Processing

29 - Which of the following is an attribute of Artificial Intelligence

A. Knowledge representation
B. Meta knowledge
C. Dynamic knowledge
D. All the above

30 - Which of the following types of quantifiers, express that the sentence is true for something

A. ∨
B. ∀
C. ∃
D. ∧

31 - Any of the following techniques analyze the target into parts and prove that all these parts belong to the knowledge base.

A. Deduction Techniques
B. Abduction Techniques
C. Induction Techniques
D. Otherwise

Which of the following forms of FOPL is right for the following sentences in questions (32-34)

32 - S: No mouse is bigger than an elephant

A. ∃ (X,Y){mouse(X) ∧ elephant(Y) ∧ biggerthan(X, Y)}
B. ∃ (X,Y){mouse(X) ∧ elephant(Y) → biggerthan(X, Y)}
C. ∀ (X,Y){mouse(X) ∧ elephant(Y) → biggerthan(X, Y)}
D. ∀ (X){mouse(X) → biggerthan(X, elephant)}

33 - S: Anyone passing their history exam and winning the lottery is happy.

A. ∀ X {pass(x, history exam) A win (X, the lottery)→happy(X)}
B. ∃ X {pass(X, history exam) A win (X, the lottery)→happy(X)}
C. ∃ X {pass(X, history exam) A win (X, the lottery A happy(X)}
D. otherwise

34 - Only one student fails in Network last semester.

A. ∃ X (student(X) → fail (X, network_last semester))
B. ∃ X(student(X ∧ fail(X, network_last semester))
C. ∀ X(student(X) → fail(X,network_last semester))
D. Otherwise

35 - Which of the following conclusions is correct for the following rule:

If x is father of z And y is uncle of z And z is father of g And h is female And h is mother of g Then:

A. g is son of x and h is sister of z
B. g is brother of z and h is son of x
C. g is grandson of x and h is wife of z
D. g is grandson of y and h is sister of y

Which of the following PROLOG statements is suitable to represent the sentences in questions (36 and 38):

36 - S.: Ali and Omar are players, Ali plays football but Omr plays tennis.

Such that we can ask: What is the player's name and what game is he playing.

A. player (ali,omr, football, tennis).
B. Player_football(ali). player_tennis(omr).
C. play(ali, football), play(omr, tennis).
D. Otherwise

37 - S: Hany likes every one who plays a football.

A. likes (X,Y):- plays(X, football).
B. likes(hany, Y):- plays(hany, football).
C. likes(X, hany):- plays(X, football).
D. likes(hany,Y):- plays(Y, football).

38 - S: The summation of the odd numbers from 1 to N, such that N is odd number.

A. Sum(0,0). sum(S,N):- sum(S1, N-2), S=S1+N.
B. sum(0,0). sum(S,N):- N1 is N-2, sum(S1, N1), S is S1+N.
C. sum(0,0). sum(S,N):- N1=N-2, sum(S1, N1), S is S1+N.
D. Otherwise

We have the facts of some students and employees. The fact of student contains his name and marks of four subjects(Database, AI, Networks, Programming). The fact of an employee contains his name, base salary, housing and transportation allowance as:

student (omr, 70, 75, 90, 80).

student (saied, 65, 70, 60, 80).

student(hanaa, 75,70,60,70).

employee(saied, 5800,470,380).

employee(khaled, 2860,750,250).

employee(hany, 3040,650,480).

Which of the following rules are used in Question (39-44) to display:

39 - The summation of student marks:

A. sum(Y):- student(Y,D,A,N,P), S is D+A+N+P.
B. sum(S):- student(Y,D,A,N,P), S is D+A+N+P.
C. sum(S,Y):- student(Y,D,A,N,P), S is D+A+N+P.
D. sum:- student(Y,D,A,N,P), write(D+A+N+P).

40 - The number of the students whose score are C.

A. countC(N):- findall(Name, (sum(S,Name), S>=260, S=<296), List), length(List,N).
B. countC(N):- findall(Name, (sum(S,Name),S>=260, S=<296)), List(length(List,N)).
C. countC(N):-findall((sum(S,N), S>=260, S=<296), List(length(List,N)).
D. countC(N):- findall(sum(S,Name), S>=260, S=<296),List(length(List,N)).

41 - The names of the students whose score are C.

A. scoreC(Y):- sum(S,Y), S >= 260, S =<296, write(Y),nl,fail.
B. scoreC(Y):- sum(Y), S >= 260, S =<296, write(Y),nl, fail.
C. scoreC(Y):- sum(Y), S >= 260, S =<296, write(S),nl, fail.
D. Otherwise

42 - The total salary of the employee

A. sum(Total, Y):- employee(H, Y, S, T), Total is S+H+T.
B. sum(Total, Y):- employee (Y, S, H, T), Total is S+H+T.
C. sum(Total,Y):- employee (Y, T, H, S), Total is S+H+T.
D. Otherwise.

43 - The names of employees who total salary greater than 4000

A. salg4000(X):- sum(T,X),T>=4000, write(X),nl, fail
B. salg4000(X):- employee (X,A,B,C,S), S>=4000, write(X),nl, fail
C. salg4000(X): - sum(X,A,B,C, S),S=A+B+C, S>=4000, write(X),nl, fail
D. Otherwise.

44 - The average of the total salary of the employee

A. avg(V,X):-employee (X,A,B,C), (A+B+C)/3
B. avg(V):-employee (X,A,B,C), V is (A+B+C)/3
C. avg(V,X):-sum(S,X), V is S/3.
D. Otherwise

45 - It does not have the ability to keep previous nodes because there is no memory

A. Breadth-First Search(BFS)
B. Hill Climbing Algorithm
C. Depth-First Search(BFS)
D. Best First Algorithm

46 - Which of the following is a Systematic Technique

A. Best First search technique
B. Hill Climbing Algorithm
C. Depth-First search technique
D. All the above

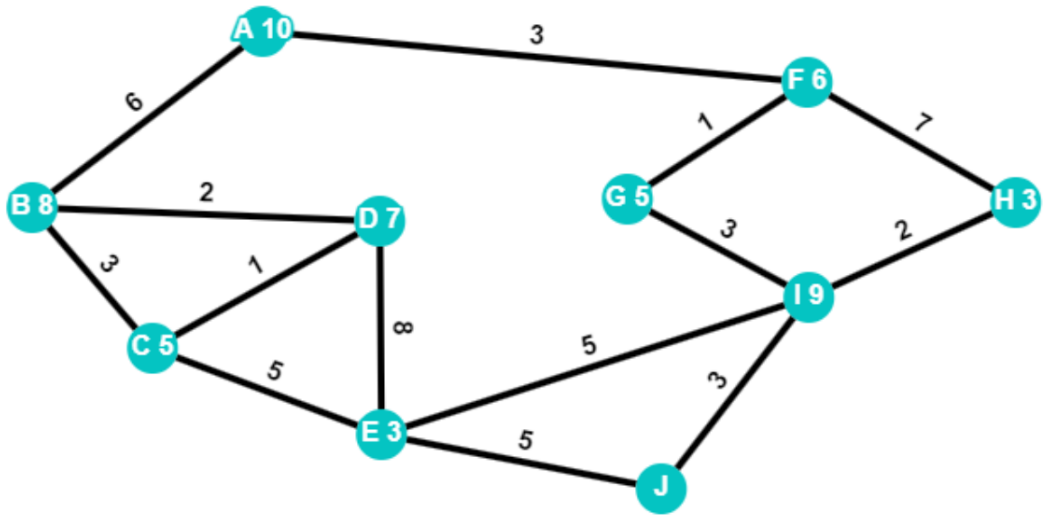
47 - Which of the following is an Optimal Technique

A. Breadth-First search technique
B. Hill Climbing Algorithm
C. Depth-First search technique
D. All the above

48 - Which of the following techniques does not have the ability to retain previous nodes because it has no memory .

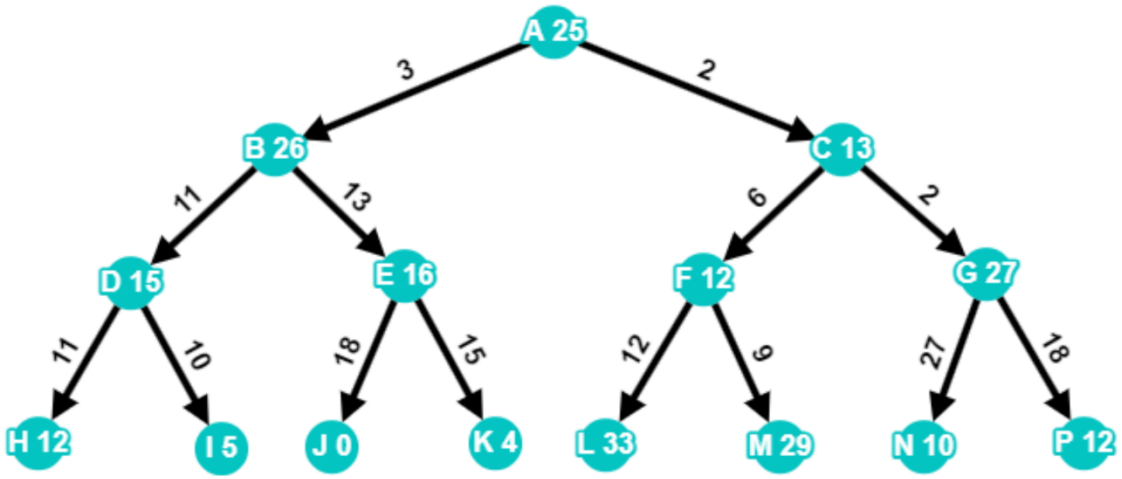
A. Best First Search Technique
B. Hill Climbing Search Technique
C. Depth-First Search Technique
D. All the above

49 - What the path and cost to reach from A to G by using: Best Search Algorithm.



A. Path: A→ F→ H→ G→B→C→E→J , Cost:0+3+7+8+10+3+5+5=41
B. Path: A→ F→H→ G→B→C→E→ J , Cost-0+3+7+1+6+3+5+5=30
C. Path: A→ F→ H→ G→ I→ J , Cost-0+3+7+8+3+3-24
D. Otherwise

What is the shortest path and cost to get from node A to the target in the following graph by using:



50 - A Algorithm.

A. Path: A→ C→F→B→D→I→H→E→J Cost: 0+2+6+11+11+10+21+35+18=114
B. Path: A →C→F→B→D→ I→ H→E→J Cost: 0+2+6+3+11+10+11+13+18=74
C. Path: A→C→F→B→ D→I→E→ J Cost: 0+2+6+3+11+10+13+18=63
D. Otherwise

51 - Depth First Search (DFS) Algorithm.

A. Path: A→B→D→ H→I→E→J Cost: 66
B. Path: A→B→D→I→ H→E→J Cost: 66
C. Path: A→B→E→ J Cost: 34
D. Path: A→B→D→ H→I→E→J Cost: 98

By using GA, what is length of the chromosome to solve the following problems in the questions (52 and 53).

52 - We have an equation: a + 2b + 3c + 4d 30, and minimize the function

f=a+2b+3c+4d-30=0

A. 5
B. 2
C. 3
D. 4

53 - We have ten cards numbered from (1-10), we want to divide these cards into two groups, each group contains 5 cards, so that:

• When multiplying the cards of the second group together, the result will be closer to the number 360.

• When calculating the sum of the first group, the result is closest to the number 36.

A. One chromosome, the length=5
B. Two chromosomes, the length of each one is =5
C. One chromosome, the length = 10
D. Otherwise

54 - We have 10 tasks (t1, t2, t3,....., t10), and want to distribute these tasks on three processors (p1, p2, p3) to minimize the execution time of these tasks on the processors. What the length and form of the chromosome.

A. 3, [p1, p2, p3]
B. 10, [t1,t2,t3,t4,t5,t6,t7,t8,t10]
C. 10, [pl, p3, p1, p2, p3, p1, p1, p2, p3, p2]
D. 20, [t1, p1, t2, p2, t3, p3, t4, p2, t5,p3, t6,,p1...,t10,p1]

55 - Which of the following search algorithm is optimal and complete when h(n) is consistent?

A. A* Search
B. Best First Search
C. Depth First Search
D. Bredith First Search

56 - Which of the following search method takes less memory space?

A. Hill Climbing
B. Depth First Search
C. Breadth-First Search
D. Otherwise

57 - Consider the following facts for marks in four subjects(Database, AI, Networks, Programming), And select the correct rule in the following questions:

Student(omr, 70, 75, 90, 80).

Student(saied, 65, 70, 60, 80).

Student(hanaa, 75,70, 60,70)

To display the names of the failed students in the Database.

A. faildata(Y):- student(Y,D,A,N,B),D<60, write(Y),nl,fail.
B. faildata(Y):- student(Y,D,_),D<60, write(Y),nl,fail.
C. faildata(Y):- student(D,Y,_,_),D<60, write(Y),nl,fail.
D. Otherwise

58 - Which of the following represents the sentence: " Any one passing their history exam and winning the prize is happy" by PROLOG.

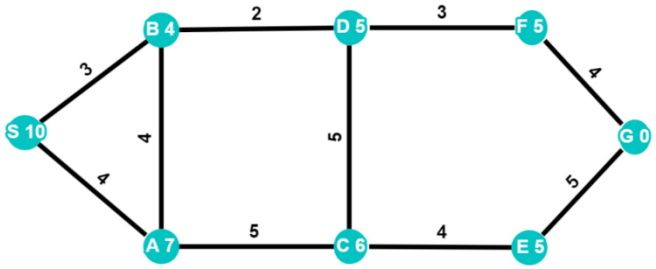
A. pass(X,AlExam). win(X,prize).
B. pass(X,AlExam):- win(X,prize)
C. happy(X):- pass(X,AlExam),win(X,prize)
D. Otherwise

59 - Which of the following is the evaluation function in the A* technique?

A. Average of Path cost from the start node to the current node and Heuristic cost
B. Path cost from the start node to the current node
C. Heuristic function
D. Path cost from the start node to current node + Heuristic cost

60 - By using Hill climbing which of the following is the shortest path and cost in the following graph:

A. S-A-C-D-F-G, cost=21
B. S-A-B-D-F-G, cost=17
C. S-B-D-C-E-G, cost=19
D. Otherwise



61 - To display the number of the students whose score are C.

A. countC(N):- findall(Name,(sum(S,Name),S>=260, S=<296),List), length(List).
B. countC(N):- findall(Name,(sum(S,Name),S>=260, S=<296),List), length(List,N).
C. countC(N):- find(Name,(sum(S),S>=260, S=<296),List), length(List,N).
D. countC(N):- find(Name,(sum(Name),S>=260, S=<296),List), length(List,N).

62 - To display The names of the students whose score are A.

A. scoreA(Y):- sum(Y), Y >=340, write(Y),nl,fail.
B. scoreA(Y):- sum(S), S >=340, write(Y),nl,fail.
C. scoreA(Y):- sum(Y,S), S >=340, write(Y),nl,fail.
D. Otherwise

63 - What is the atomic sentence of the following sentence:

"Billy studies AI"

A. study (Bily, AI)
B. study (AI, Bily)
C. study (ai, bily)
D. study (bily, ai)

64 - To write the following sentence by Prolog language, we use:

A man is happy if he is rich and famous

A. rich (man),feamus(man):- hapy(man),
B. hapy (man): - rich(man),feamus(man).
C. hapy (X):-rich(X),feamus(X).
D. hapy (X):- rich(man),feamus(man).

65 - The aims of AI is to make computers work with:

A. High speed
B. Efficiently in data management
C. High accuracy
D. Otherwise

66 - Which of the following of AI applications is true:

A. Database management system
B. System Analysis and design
C. Neural networks
D. Otherwise

67 - one of an attributes of AI systems uses of special structures to describe knowledge.

A. Knowledge representation
B. Meta knowledge
C. Dynamic knowledge
D. All the above

68 - It means providing the computer with optical sensors that can identify the persons and forms

A. Expert Systems
B. Machine Learning
C. Neural Networks
D. Image Processing

69 - It is a type of machine learning which models itself after the human brain

A. Expert Systems
B. Machine Learning
C. Neural Networks
D. Image Processing

70 - They are programs that contain a huge amount of information owned by a human in a specific field.

A. Expert Systems
B. Machine Learning
C. Neural Networks
D. Image Processing

71 - Which of the following FOLP is true for the sentence: All people that are not poor and smart are happy

A. ∃X (¬ poor(X) ∧ smart(X)) → happy(X).
B. ∃X (¬ poor(X) ∨ smart(X)) → happy(X).
C. ∀X (poor(X) ∧ smart(X)) → happy(X).
D. ∀X (¬ poor(X) ∧ smart(X)) → happy(X).

72 - To rewrite the following FOP by Rule, we use :

∀X {[friend(X, hany) → friend(X, saied)] ∧ [friend(X, saied) → friend(X, ali)]}

A. If X is friend hany, Then X is friend saied And X is friend ali
B. If X is friend hany And hany is friend saied Then X is friend ali
C. If X is friend hany And X is friend saied Then X is friend ali
D. Otherwise

73 - By using Python Imaging Library (PIL), what is the correct code to read an image (D:\aaa.jpg)

A. Image.open ("D:\aaa.jpg")
B. Image.read ("D:\aaa.jpg")
C. Image.open ("D:\\aaa.jpg")
D. D = image.open ("D:\\aaa.jpg")

74 - If you consider the following code, what is the length of the line:

```
draw.line((100, 200, 300, 400), fill=(0, 0, 0), width=10)
```

A. 100
B. 200 sqrt(200^2 + 200^2) = 282.84
C. 300
D. 400

75 - AI aims is programming computers so that they can have the ability to:

A. Think
B. Solve problems
C. Make decisions
D. All the above

76 - It is a method to perform some operations on the form, in order to extract some useful information from it.

A. Expert Systems
B. Machine Learning
C. Neural Networks
D. Image Processing

77 - Which of the following of AI applications areas is true.

A. Networks Field
B. Medical Field
C. Military Field
D. All the above

78 - One of an attributes of AI systems is:

A. Knowledge representation
B. Meta knowledge
C. Dynamic knowledge
D. All the above

79 - It is considered one of the main components of expert systems

A. Database Systems
B. Information Systems
C. Knowledge Base
D. Knowledge Based Systems

80 - It is awareness gained by experiences of facts, data, and situations

A. Fact
B. Rule
C. Knowledge
D. Information

81 - Which of the following FOLP is true for the sentence: Every man respects his parent

A. ∃x man(x) ^ respects (x, parent).
B. ∃x man(x) ^ respects (parent).
C. ∀x man(x) → respects (parent).
D. ∀x man(x) → respects (x, parent).

82 - Consider the following rule and which of the following FOPL is true :

If x is father of z,

And z is father of y,

Then x is grandfather of y.

A. (∀x∀y∃z){father(x,z) ∧ father(y,z) → grandfather(x,y)}.
B. (∀x∀y∃z){father(z,x) ∧ father(y,z) → grandfather(x,y)}.
C. (∀x∀y∃z){father(z,x) ∧ father(z,y) grandfather(x,y)}.
D. (∀x∀y∃z){father(x,z) ∧ father(z,y) → grandfather(x,y)}

83 - To change the size of an image using resize() method of pillow, you use:

A. im = image.open ("xxx.jpg")

   im.resize ((300, 300))

B. im = image.open ("xxx.jpg")

   im = im.resize ((300, 300))

C. im = image.open ("xxx.jpg")

   im = resize ((300, 300))

D. Oterwise

84 - Consider the following codes:

```
from PIL import Image, ImageDraw
img = Image.new('RGB', (500, 300), (12, 25, 15))
draw = ImageDraw.Draw(img)
draw.line((200, 100, 300, 200), fill=(0, 0, 0), width=10)
img.show()
```

what do the parameters (500,300) represent:

A. The length and width of the line
B. The coordinates of the starting point of the line
C. The coordinates of the starting and end point of the line
D. Otherwise

85 - In expert systems, the computer is provided with optical sensors that can identify people and suspects

A. True
B. False

86 - The knowledge base is one of the main components of an expert systems.

A. True
B. False

87 - The knowledge is awareness gained by experiences of facts, data, and situations:

A. True
B. False

88 - Consider the following rule and which of the following FOPL is true :

If x is father of z,

And z is father of y,

Then x is grandfather of y.

A. (∀x∀y∃z){father(x,z) ∧ father(y,z) → grandfather(x,y)}.
B. (∀x∀y∃z){father(z,x) ∧ father(z,y) grandfather(x,y)}.
C. (∀x∀y∃z){father(z,x) ∧ father(y,z) → grandfather(x,y)}.
D. (∀x∀y∃z){father(x,z) ∧ father(z,y) → grandfather(x,y)}

89 - To change the size of an image using resize() method of pillow, you use:

A. im = image.open (“xxx.jpg”)

   im.resize ((300, 300))

B. im = image.open (“xxx.jpg”)

   im = im.resize ((300, 300))

C. im = image.open (“xxx.jpg”)

   im = resize ((300, 300))

D. Oterwise

90 - Consider the following codes, and what do the parameters (500,300) represent:

```
from PIL import Image, ImageDraw
img = Image.new('RGB', (500, 300), (12, 25, 15))
```

A. The length and width of the line
B. The coordinates of the starting point of the line
C. The coordinates of the starting and end point of the line
D. Otherwise

91 - If you consider the following code, what is the length of the line:

```
draw.line((100, 100, 100, 400), fill=(0, 0, 0), width=10)
```

A. 100
B. 200
C. 300
D. 400

92 - To write the following sentence by Prolog language, we use:

jon likes everyone who plays a football.

A. likes (X,Y):- plays(X, football).
B. likes (X,Y):- plays(Y, football).
C. likes (jan,Y):- plays (jan, football).
D. likes (jan,Y):- plays (Y, football).

93 - To write the following sentence by Prolog language, we use:

A man is happy if he is rich and famous

A. hapy (man): - rich(man),feamus(man).
B. rich (man),feamus(man):- hapy(man),
C. hapy (X):- rich(man),feamus(man).
D. hapy (X):-rich(X),feamus(X).

94 - What is the atomic sentence of the following sentence:

Billy studies AI

A. study (Bily, AI)
B. study (AI, Bily)
C. study (bily, ai)
D. study (ai, bily)

95 - How many types of quantification are there in AI?

A. 2 Existential and Universal
B. 1
C. 4
D. 3

96 - Which of the following is not an application of artificial intelligence

A. Natural Language Processing
B. Computer Vision
C. Digital Assistants
D. Database Management System

97 - The "Father of Artificial Intelligence" is:

A. John McCarthy
B. Charles Babbage
C. Alan Turing
D. Otherwise

98 - Inference engines work on the principle of?

A. Induction Techniques
B. Production Techniques
C. Both A and B
D. Deduction Techniques

99 - It is a searching technique for the target in the tree structure _____

A. A* Search Algorithm
B. Depth-First Search Algorithm
C. Breadth-Fit Search Algorithm
D. Otherwise

100 - Which of the following are Heuristic Search algorithm?

A. Best-First Algorithm
B. Depth-First Search Algorithm
C. Breadth-First Search Algorithm
D. All of the above

101 - Knowledge in AI can be represented as?

A. Semantic Networks
B. Predicate symbols
C. Both A and B
D. Otherwise

102 - Which of the following search methods takes less memory space?

A. A* Search Algorithm
B. Depth-First Search Algorithm
C. Breadth-First Search Algorithm
D. All of the above

103 - It can be used to solve many problems in graph theory

A. A* Search Algorithm
B. Depth-First Search Algorithm
C. Breadth-First Search Algorithm
D. All of the above

104 - Means providing the computer with optical sensors that can identify the persons and forms

A. Knowledge Base
B. Image Processing
C. Machine Learning
D. Expert Systems

105 - The "Father of Artificial Intelligence" is:

A. Alan Turing
B. Charles Babbage
C. John McCarthy
D. None of the above

106 - Which of the following is not an application of artificial intelligence?

A. Computer Vision
B. Natural Language Processing
C. Database Management System
D. Digital Assistants

107 - How many types of quantification are there in AI?

A. 1
B. 2
C. 3
D. 4

108 - Knowledge in AI can be represented as?

A. Predicate Logic
B. Propositional Logic
C. Both A and B
D. None of the above

109 - Which of the following are heuristic search algorithms?

A. Best First Search Algorithm
B. A* Search Algorithm
C. Both A and B
D. None of the above

110 - Inference engines work on the principle of?

A. Backward Chaining
B. Forward Chaining
C. Both A and B
D. None of the above

111 - Components of an expert system are?

A. Knowledge base
B. User interface
C. Inference engine
D. All of the above

112 - Which of the following search method takes less memory space?

A. Depth First Search
B. Breadth-First Search
C. Linear Search
D. Optimal Search

113 - Which of the following statements correctly define knowledge representation in AI?

A. It is the way in which facts and information are stored in the storage system of the agent
B. It is the way in which we feed the knowledge in machine understandable form
C. We modify the knowledge and convert it into the format which is acceptable by the machine
D. All of the above

114 - "All boys are cool." Corresponding FOL is:

A. $\forall x: boy(x) \rightarrow cool(x)$
B. $\forall x: boy(x) \wedge cool(x)$
C. $\forall x: boy(x) \rightarrow (cool,x)$
D. $\forall x: boy(x) \leftrightarrow cool(x)$