

**BCA (H) Semester-VI Examination, 2022-23****Bachelor of Computer Application [Honours]****Course ID : 63312****Course Code : BCA/CC-14****Course Title : Intelligent Systems**

Time : 2 Hours

Full Marks : 50

*The figures in the right-hand margin indicate marks.**Candidates are required to give their answers in their own words as far as practicable.***GROUP-A**1. Answer **all** the questions:  $1 \times 10 = 10$ 

- i) Which of the following is informed search method?
- a) Best First Search
  - b) A\* search
  - c) Memory Bound Heuristic Search
  - d) All of the above
  - e) None of the above
- ii) Which of the following is a type of artificial Intelligent Agent?
- a) Simple reflex agent

- b) Model base agent
  - c) Goal Base agent
  - d) All of the above
  - e) None of the above
- iii) Machine running LISP are called
- a) AI Workstations
  - b) Time Sharing Terminals
  - c) Call Timing
  - d) Both 'a' and 'b'
  - e) None of the above
- iv) How many type of quantifiers are there in AI?
- a) 1
  - b) 3
  - c) 2
  - d) 4
  - e) None of the above
- v) Which of the following is common language for artificial Intelligence?
- a) Python
  - b) Java
  - c) LISP
  - d) PHP
  - e) None of the above

vi) Which of the following is a goal of artificial Intelligence?

- a) To solve artificial problems
- b) To extract Scientific causes
- c) To explain various type of intelligence
- d) To create an expert system to solve the problem
- e) None of the above

vii) Which of the following is a components of AI?

- a) Learning
- b) Training
- c) Designing
- d) Puzzling
- e) None of the above

viii) The total no of prepositions symbols in AI—

- a) 3 preposition symbols
- b) 2 preposition symbols
- c) 1 prepositions symbol
- d) 4 preposition symbol
- e) None of the above

ix) Which of the following are the big ideas of AI?

- a) Perception
- b) Human AI interactions
- c) Social impact
- d) All of the above
- e) None of the above

x) Which is the full form of A\*?

- a) Artificial intelligence
- b) Admissible technique
- c) Advance Intelligence
- d) All of the above
- e) None of the above

### GROUP-B

2. Answer the following questions (any **five**):

2×5=10

- a) Define Turing test technique.
- b) Define Modus Tollens. Give an example of Modus Tollens.
- c) What do you mean by predicate logic? Give example of predicate logic.

- d) Write a short note on the goals of Artificial Intelligence.
- e) What do you mean by state space search problems?
- f) Write down the type of knowledge representation.
- g) Define state resolution Principel.
- h) Write down the disadvantages of Hill climbing technique?

**GROUP-C**

3. Answer the following questions (any **four**):

5×4=20

- a) Explain Hill Climbing algorithm? Explain A\* algorithm.
- b) Explain five steps of Natural language processing.
- c) What are the important issues in knowledge representations? Explain.
- d) Give four differences between the representation of knowledge base and database in computers?
- e) What is the purpose of syntax analysis? Define the problems between a state and path.
- f) Write the two important rules of control strategies?

**GROUP-D**

4. Answer the following questions (any **one**):

10×1=10

- i) a) Discuss BFS algorithm and illustrate it with a suitable example.
- b) Write down the following English following statement in predicate logic.

"All drinkers are not bad".                      8+2

ii) Write short notes (any **two**):                      5+5

- a) Fuzzy Logic
- b) Bayesian interferences
- c) PROPOSITIONAL Logic

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