



BRAINWARE UNIVERSITY

Term End Examination 2023
Programme – BCA-2019/BCA-2020
Course Name – Artificial Intelligence
Course Code - BCAD502B
(Semester V)

Full Marks : 60

Time : 2:30 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :

- (i) Deep learning is type of
- | | |
|--------------|---------------------|
| a) Robotics | b) Machine Learning |
| c) Searching | d) none of these |
- (ii) In an Unsupervised learning
- | | |
|-------------------------------------|---|
| a) Specific output values are given | b) Specific output values are not given |
| c) No specific Inputs are given | d) Both inputs and outputs are given |
- (iii) Why are linearly separable problems of interest of neural network researchers?
- | | |
|---|--|
| a) Because they are the only class of problem that network can solve successfully | b) Because they are the only class of problem that Perceptron can solve successfully |
| c) Because they are the only mathematical functions that are continuous | d) Because they are the only mathematical functions you can draw |
- (iv) Decision Nodes are represented by
- | | |
|------------|--------------|
| a) Disks | b) Squares |
| c) Circles | d) Triangles |
- (v) A constructive approach in which no commitment is made unless it is necessary to do so is
- | | |
|------------------------------|-----------------------------|
| a) Least commitment approach | b) Most commitment approach |
| c) Nonlinear planning | d) Opportunistic planning |
- (vi) What is the intentional exchange of information brought about by production and perception?
- | | |
|------------|------------------|
| a) Hearing | b) Communication |
| c) Speech | d) None of these |
- (vii) What is the goal of artificial intelligence?
- | | |
|---|---------------------------------|
| a) To solve real-world problems | b) To solve artificial problems |
| c) To explain various sorts of intelligence | d) To extract scientific causes |
- (viii) Which of the following could be an approach to Artificial Intelligence?

- a) Strong Artificial Intelligence
c) Applied Artificial Intelligence
- b) Weak Artificial Intelligence
d) All of these
- (ix) The first AI programming language was called:
a) BASIC
c) IPL (Inductive logic programming)
- b) FORTRAN
d) LISP
- (x) What is the rule of simple reflex agent?
a) Simple-action rule
c) Simple & Condition-action rule
- b) Condition-action rule
d) None of these
- (xi) What is the composition for agents in artificial intelligence?
a) Program
c) Both Program & Architecture
- b) Architecture
d) None of these
- (xii) Which agent deals with happy and unhappy states?
a) Simple reflex agent
c) Learning agent
- b) Model based agent
d) Utility based agent
- (xiii) Which search uses the problem specific knowledge beyond the definition of the problem?
a) Informed search
c) Breadth-first search
- b) Depth-first search
d) Uninformed search
- (xiv) Which is true regarding BFS (Breadth First Search)?
a) BFS will get trapped exploring a single path
c) BFS is not guaranteed to find a solution if exists
- b) The entire tree so far been generated must be stored in BFS
d) BFS is nothing but Binary First Search
- (xv) What is a heuristic function?
a) A function to solve mathematical problems
c) A function whose return type is nothing
- b) A function which takes parameters of type string and returns an integer value
d) A function that maps from problem state descriptions to measures of desirability

Group-B

(Short Answer Type Questions)

3 x 5=15

2. Write the difference between Discrete and Continuous. (3)
3. What is an Artificial neural network? Produce some Name commonly used Artificial Neural networks (3)
4. Explain dependency parsing in NLP. (3)
5. Explain the List of applications in fuzzy logic. (3)
6. Identify the difference between a goal and utility-based agents (3)
- OR**
- Describe a simple reflex agent with a proper diagram. (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. Explain the knowledge representation in AI. (5)
8. Explain Uniform-cost Search Algorithm and give an example. (5)
9. Explain the Bayesian network with an example (5)
10. Explain with an example of Alpha-Beta Pruning. (5)

11. Write down the factor associate with NLP

(5)

12. What do you understand about Artificial Intelligence?

(5)

OR

What do you understand about Artificial Intelligence?

(5)
