

## Technical Test Result

| DESCRIPTION         | STATUS |
|---------------------|--------|
| Attempted Questions | 15     |
| Blank Answer        | 0      |
| Basic Correct       | 12     |
| Optional Correct    | 0      |

1.   **Which search method takes less memory**

- ☐ (A) Depth-First search
- ☐ (B) Breadth-First search ✓
- ☒ (C) Linear Search
- ☐ (D) Optimal Search

2.   **Which condition is used to influence a variable directly by all the others?**

- ☐ (A) Partially connected
- ☒ (B) Fully connected ✓
- ☐ (C) Local connected
- ☐ (D) None of the mentioned

3.   **Which algorithm is used for solving temporal probabilistic reasoning?**

- ☐ (A) Hill-climbing search
- ☒ (B) Hidden markov model ✓
- ☐ (C) Depth-first search
- ☐ (D) Breadth-first search

4. ★★ Which data structure is used to give better heuristic estimates?

- ☐ (A) Forwards state-space
- ☐ (B) Backward state-space
- ☒ (C) Planning graph algorithm ✓
- ☐ (D) None of the mentioned

5. ★☆ Which object recognition process is an error-prone process

- ☒ (A) Bottom-up segmentation ✓
- ☐ (B) Top-down segmentation
- ☐ (C) Both Bottom-up & Top-down segmentation
- ☐ (D) None of the mentioned

6. ★★ How the distance between two shapes can be defined?

- ☒ (A) Weighted sum of the shape ✓
- ☐ (B) Size of the shape
- ☐ (C) Shape context
- ☐ (D) None of the mentioned

7. ★☆ What can't be done in the semantic interpretation?

- ☐ (A) Logical term
- ☐ (B) Complete logical sentence
- ☒ (C) Both Logical term & Complete logical sentence ✓
- ☐ (D) None of the mentioned

8. ★★ Which of the following machine learning algorithm can be used for imputing missing values of both categorical and continuous variables?

- ☒ (A) K-NN ✓
- ☐ (B) Linear Regression
- ☐ (C) Logistic Regression
- ☐ (D)

9. ★☆ Which of the following algorithm doesn't uses learning Rate as of one of its hyperparameter?

- ☒ (A) Random Forest ✓
- ☐ (B) Gradient Boosting
- ☐ (C) AdaBoost
- ☐ (D)

10. ★ When you use the boosting algorithm you always consider the weak learners. Which of the following is the main reason for having weak learners?

- ☐ (A) To prevent overfitting ✓
- ☐ (B) To prevent under fitting
- ☒ (C) To prevent overfitting and underfitting
- ☐ (D) None of these

11. ★ A perceptron is:

- ☒ (A) a single layer feed-forward neural network with pre-processing ✓
- ☐ (B) an auto-associative neural network
- ☐ (C) a double layer auto-associative neural network
- ☐ (D) a neural network that contains feedback

12. ★ A 4-input neuron has weights 1, 2, 3 and 4. The transfer function is linear with the constant of proportionality being equal to 2. The inputs are 4, 10, 5 and 20 respectively. The output will be:

- ☒ (A) 238 ✓
- ☐ (B) 76
- ☐ (C) 119
- ☐ (D) 123

13. ★ What is true regarding backpropagation rule?

- ☐ (A) it is a feedback neural network
- ☒ (B) actual output is determined by computing the outputs of units for each hidden layer ✓
- ☐ (C) hidden layers output is not all important, they are only meant for supporting input and output layers
- ☐ (D) none of the mentioned

14. ★  $p(s=1|x) = 1/(1+\exp(-x/T))$ , where 's' is the output given the activation 'x' is a?

- ☐ (A) hopfield network
- ☒ (B) sigma network
- ☐ (C) stochastic network ✓
- ☐ (D) none of the mentioned

15. ★★ ☆ **Morphological Segmentation**

- ☐ (A) Does Discourse Analysis
- ☒ (B) Separate words into individual morphemes and identify the class of the morphemes ✓
- ☐ (C) Is an extension of propositional logic
- ☐ (D) None of the mentioned