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Question Paper Code: 59424

B.E. / B.Tech. DEGREE EXAMINATION, DEC 2020

Elective

Electronics and Communication Engineering

15UEC924- ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

(Regulation 2015)

Duration: One hour

Maximum: 30 Marks

PART A - (6 x 1 = 6 Marks)

(Answer any six of the following questions)

1. What kind of environment is crossword puzzle? CO1-R
(a) Static (b) Dynamic (c) Semidynamic d) None
2. Which search strategy is also called as blind search? CO1-R
(a) Uniformed search (b) Simple reflex search
(c) Informed search (d) All of the mentioned
3. Best-First search can be implemented using the following data structure CO2-R
(a) Queue (b) Stack (c) Priority Queue (d) Circular Queue
4. What is the heuristic function of greedy best-first search? CO2-R
(a) $f(n) \neq h(n)$ (b) $f(n) < h(n)$ (c) $f(n) = h(n)$ (d) $f(n) > h(n)$
5. How many logical connectives are there in artificial intelligence? CO3-R
(a) 2 (b) 3 (c) 4 (d) 5
6. ' $\alpha \models \beta$ ' (to mean that the sentence α entails the sentence β) if and only if, in every model in which α is _____ β is also _____ CO3-R
(a) True, true (b) True, false (c) False, true (d) False, false
7. Automated vehicle is an example of _____ CO4-R
(a) Supervised learning (b) Unsupervised learning
(c) Active learning (d) Reinforcement learning

8. Which of the following is a disadvantage of decision trees? CO4-R
- (a) Factor analysis (b) Decision trees are robust to outliers
(c) Decision trees are prone to be overfit (d) None of the above
9. What is defined by a set of strings? CO5-U
- (a) Signs (b) Formal language
(c) Communication (d) None of the mentioned
10. Why the parsing is used? CO5-U
- (a) Interpretation (b) Building a parse tree
(c) Recognition (d) All of the mentioned

PART – B (3 x 8= 24 Marks)

(Answer any three of the following questions)

11. Explain briefly about blind search techniques with an example for each search. CO1- U (8)
12. What is Greedy Best First Search? Explain with an example the different stages of Greedy Best First search. CO2- U (8)
13. Explain unification algorithm with an example. CO3- U (8)
14. Explain how the decision-tree-learning is done with an example and algorithm. CO4 -U (8)
15. Explain the two types of parsing with suitable example. CO5- U (8)