CBCS SCHEME

USN | | | | | | | | | | |

15EC834

# Eighth Semester B.E. Degree Examination, November 2020
## Machine Learning

Time: 3 hrs. Max. Marks: 80

***Note: Answer any FIVE full questions irrespective of modules.***



### Module-1

1 a. Explain briefly the choosing a representation for the target function and a function approximation algorithm. **(08 Marks)**

b. With the diagram, explain the final design of the checkers learning program. **(08 Marks)**

2 a. What is the concept Learning task, explain with as example. **(08 Marks)**

b. Explain the candidate elimination learning algorithm. **(08 Marks)**

### Module-2

3 a. Explain the decision tree for the concept of play tennis. **(08 Marks)**

b. What is reduced error pruning and rule post pruning? **(08 Marks)**

4 a. What is the gradient descent algorithm for training a linear unit? **(08 Marks)**

b. Explain the back propagation algorithm for feed forward network containing two layers of sigmoid units? **(08 Marks)**

### Module-3

5 a. What is the Baye's theorem, explain briefly with an example. **(08 Marks)**

b. What is the Brute-force MAP learning algorithm, explain briefly. **(08 Marks)**

6 a. Explain the minimum description length principle. **(08 Marks)**

b. What is the Naïve Baye's classifier? Explain briefly. **(08 Marks)**

### Module-4

7 a. What is the k-nearest neighbor learning? Explain briefly. **(08 Marks)**

b. Explain briefly the locally weighted linear Regression. **(08 Marks)**

8 a. What is the general to specific Beam search? Explain briefly. **(08 Marks)**

b. What is learning sets of First Order Rule (FOIL)? Explain briefly. **(08 Marks)**

### Module-5

9 a. What is the explaination based learning algorithm PROLOG – EBG? Explain briefly. **(08 Marks)**

b. Explain the remarks on explaination based learning. **(08 Marks)**

10 a. Explain briefly the Hypothesis space search. **(08 Marks)**

b. What is the FOCL algorithm? Explain briefly. **(08 Marks)**

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