

B.Tech-(CSAI) Vth SEMESTER  
MID –SEMESTER EXAMINATION, Sep, 2022

Course Code- CACSC17

Course Title- Machine Learning

Time-1.5 Hours

Max. Marks-25

Note- Attempt all the five questions. Missing data/information if any, maybe suitably assumed & mentioned in the answer.

Q. No.	Questions	Marks	CO
Q1a.	What is learning system. Write the goals and application of machine learning.	3	CO1
Q1b.	What is concept learning task? Define general and specific hypothesis.	2	CO1
Q2a.	What is find S algorithm? Write the steps in find S algorithm.	2	CO1
Q2b.	Define version space. Write the candidate elimination algorithm.	3	CO1
Q3a.	Explain ensemble learning. How does bagging classifier works on dataset.	3	CO2
Q3b.	Differentiate bagging and boosting with suitable example.	2	CO1
Q4a.	Define underfitting. What are the reasons and techniques to reduce underfitting?	2	CO2
Q4b.	Consider the given instance space in which possible type of each attribute are 2, 3, 2, 2, and 3 respectively. How many semantically distinct hypothesis would be possible?	3	CO2
Q5a.	What is linear regression? Explain with suitable example.	3	CO2
Q5b.	Differentiate bias and variance.	2	CO1