

B. TECH. (COMPUTER SCIENCE & BUSINESS SYSTEMS) (CBCS - 2018 COURSE)

B.Tech. (CSBS) Sem - V : WINTER- 2022

SUBJECT : MACHINE LEARNING

Day : Friday

Date : 16-12-2022

W-20468-2022

Time : 02:30 PM-05:30 PM

Max. Marks : 60

N.B.:

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Draw neat and labeled diagram **WHEREVER** necessary.
- 4) Use of non-programmable **CALCULATOR** is allowed.
- 5) Assume suitable data if necessary.

Q.1 Explain how does human learning is referred in Machine Learning. [10]

OR

Explain in short about major models available in machine learning. [10]

Q.2 How does the training and testing is done on classifier models? Explain in detail. [10]

OR

What is cross validation? Explain in detail. [10]

Q.3 How does Bayesian Networks helps in machine learning? Explain in detail. [10]

OR

How does Decision Tree plays important role in machine learning? [10]

Q.4 How does sequence classification is done using Hidden Markov Models (HMM)? Explain in detail. [10]

OR

Explain in detail Viterbi algorithms. [10]

Q.5 Explain the role of Regression in machine learning. [10]

OR

What is LASSO? Explain in detail. [10]

Q.6 What is Expectation-Maximization (EM)? Explain its role in machine learning. [10]

OR

Consider real time example to explain k-nearest clustering. [10]

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