## BACHELOR OF TECHNOLOGY (C.B.C.S.) (2014 COURSE)
## B.Tech.Sem - VIII COMPUTER :SUMMER- 2022
## SUBJECT : MACHINE LEARNING

Day : Tuesday
Date : 14-06-2022      **S-13676-2022**

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 diagrams wherever necessary.
4) Use of nonprogrammable calculator is allowed.

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| **Q.1** | **a)** | Enlist and explain various applications of Machine Learning. | **(05)** |
| | **b)** | Write short note Testing and Learning. | **(05)** |
| | | **OR** | |
| **Q.1** | **a)** | What is Machine Learning? Explain with any one example. | **(05)** |
| | **b)** | Explain the concept of Machine Intelligence. | **(05)** |
| **Q.2** | | Enlist and explain various machine learning techniques. | **(10)** |
| | | **OR** | |
| **Q.2** | | Enlist and explain various machine learning models. | **(10)** |
| **Q.3** | **a)** | What is Classification? Explain Associative classification in detail. | **(05)** |
| | **b)** | What is Back propagation? Explain with example. | **(05)** |
| | | **OR** | |
| **Q.3** | **a)** | Explain Decision Tree with advantages and disadvantages. | **(05)** |
| | **b)** | Write short note on Support Vector Machine. | **(05)** |
| **Q.4** | **a)** | What is Regression? Explain Logistic Regression in detail. | **(05)** |
| | **b)** | Differentiate between Classification and Regression. | **(05)** |
| | | **OR** | |
| **Q.4** | **a)** | What is Linear Regression? Explain its advantages and disadvantages. | **(05)** |
| | **b)** | Enlist and explain applications of Supervised Learning. | **(05)** |
| **Q.5** | **a)** | What is clustering? Explain Hierarchical clustering in detail. | **(05)** |
| | **b)** | Write short note on Anomaly Detection. | **(05)** |
| | | **OR** | |
| **Q.5** | **a)** | Write short note on Self Organizing Map (SOM) | **(05)** |
| | **b)** | Enlist and explain various applications of Unsupervised learning. | **(05)** |
| **Q.6** | | Enlist and explain Ensemble methods for increasing accuracy. | **(10)** |
| | | **OR** | |
| **Q.6** | | Write short note on Deep learning and Reinforcement learning. | **(10)** |

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