

Reg. No. :

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Question Paper Code: UEG76

B.E./B.Tech. DEGREE EXAMINATION, NOV 2024

Professional Elective

21ADVG76 STATISTICAL MACHINE LEARNING

(Regulations 2021)

(Common to Mechanical and EEE Engineering branches)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART – A (5 x 20= 100 Marks)

1. (a) Explain in detail about Statistical fundamentals and Terminology for Model building and validation. CO1 -U (20)
Or
(b) Explain in detail about Machine Learning model Development and Deployment. CO1-U (20)
2. (a) Describe the following CO1 -U (20)
(i) K-Nearest Neighbor
(ii) Naïve bayes.
Or
(b) Describe in detail about the Support Vector Machine Algorithm. CO1-U (20)
3. (a) Apply the K-Means clustering Algorithm with real time applications. CO2-App (20)
Or
(b) Apply the Principal Component Analysis with suitable python examples. CO2-App (20)
4. (a) Explain in detail about Random Forest Algorithm with suitable Python examples. CO1 -U (20)
Or
(b) Describe the concept of Decision Tree algorithm in machine learning with real time applications. CO1-U (20)

5. (a) Apply the concepts of content based Filtering in Reinforcement CO2-App (20)
learning with suitable .

Or

(b) Apply the Reinforcement Learning with suitable machine CO2-App (20)
learning examples.