

# SPPU-BE-COMP-CONTENT – KSKA Git

Total No. of Questions : 4]

SEAT No. :

PC184

[6361]-42

[Total No. of Pages : 1

**B.E. (Computer Engineering) (Insem)**  
**MACHINE LEARNING**  
**(2019 Pattern) (Semester - VII) (410242)**

*Time : 1 Hour]*

*[Max. Marks : 30*

*Instructions to the candidates:*

- 1) Answer Q.1 or Q.2, Q.3 or Q.4.
- 2) Figures to the right indicates full marks.
- 3) Draw neat diagram wherever necessary.
- 4) Assume suitable data, if necessary.

- Q1)** a) Describe in detail different Machine Learning models used. [5]  
b) What are the main differences between supervised learning and reinforcement learning? [5]  
c) Explain geometric models and its types. [5]

OR

- Q2)** a) Compare Artificial intelligence and Machine learning. [5]  
b) Describe the various steps involved in developing a machine learning application. [5]  
c) Describe grouping and grading models. [5]

- Q3)** a) Convert given data set in normalized data set.  $D = \{23, 29, 52, 31, 45, 19, 18, 27\}$ . [8]  
b) Why do you need categorical variable encoding? With an example, explain one-hot encoding. [7]

OR

- Q4)** a) Which statistical methods are used to describe the nature of data? [5]  
b) What are the feature of multidimensional scaling? [5]  
c) Elaborate use of PCA in preprocessing stage. [5]

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