Name: **Enrolment No:**	UPES

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, December 2019

Course: Advanced and Predictive Analytics for Healthcare **Semester: VII**
Programme: B. Tech CSE Splz in Healthcare Informatics **Time: 03 hrs.**
Course Code: CSEG491 **Max. Marks: 100**

	SECTION A		**5 X 4 = 20**
Q1	Why is it essential to mine data and advantages does it claim?	**4**	**CO1**
Q2	What is KDD process and what challenges is this process going to address?	**4**	**CO1**
Q3	What is the importance of data preparation for any analytics application?	**4**	**CO2**
Q4	Discuss the need of data partition, by evaluating pro's and con's.	**4**	**CO3**
Q5	What is the necessity to have a model evaluation criteria? What requirements does this mechanism fulfill from KDD point of View?	**4**	**CO4**
	SECTION B		**4 X 10 = 40**
Q6	Using CRISP process, demonstrate how a business outcome will be supported and why Data is going to be used in strengthening the outcome?	**10**	**CO1**
Q7	With the help of examples demonstrate how, various data preparation techniques work that will strengthen KDD process **Or** Evaluate any two different data preparation technique from an implementation aspect for medical data.	**10**	**CO2**
Q8	What is entropy? Demonstrate how information gain & entropy are applied in Decision Trees?	**10**	**CO3**
Q9	How is linear regression model evaluated, when there is randomization in data and the entropy is low?	**10**	**CO4**
	SECTION-C		**2 X 20 = 40**
Q10	Why is Neural Network (NN) considered as a classifier? What kind of problem cases can NN handle especially in non-linearity? Also, how do we measure correctness in classification? **Or** Demonstrate with any case study, that adaptation of predictive analytics can improvise healthcare services both in length and width of stake holders	**20**	**CO3**
Q11	Compare various evaluation techniques that are suitable for judging any classification solution. Support you answer either by taking a typical industrial case (case study should be explained in no more than 150 words) or by fundamentals of methods and techniques.	**20**	**CO4**