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| QSS Analytics | | | | | | |
| Final exam | | | | | | |
| **Name,Surname:** |  | |  | Date: |  | | |
| **Exam:**Data Science with Python | |
| Instructions: You will be given ***45 minute*** to complete examination. There are 2 types of questions including:Multiple choice, Open .  It is your responsibility to submit your exam paper electronically to mail with **“Python Exam”** subject.  Before you leave examination venue you **MUST** contact mentor to confirm that you have submitted your examination.  Good Luck! | | | | | | |

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| PART 1: MULTIPLE CHOICE |
| Directions: Read each question carefully, and then CIRCLE THE ANSWER that best fits the question. |
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| **1.A feature F1 can take certain value: A, B, C, D, E, & F and represents grade of students from a college.Which of the following statement is true in following case?**  A) Feature F1 is an example of nominal variable. B) Feature F1 is an example of ordinal variable. C) It doesn’t belong to any of the above category. D) Both of these |

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| 2.Which of the following statements is/are true about “Type-1” and “Type-2” errors?Type1 is known as false positive and Type2 is known as false negative.Type1 is known as false negative and Type2 is known as false positive.Type1 error occurs when we reject a null hypothesis when it is actually true. A) Only 1  B) Only 2  C) Only 3  D) 1 and 2  E) 1 and 3  F) 2 and 3 Select the option that correctly completes the sentence:(3-6)3.Training a model using labeled data and using this model to predict the labels for new data is known as \_\_\_\_\_\_\_\_\_\_\_\_. A)Supervised Learning  B)Density Estimation  C)Clustering  D)Unsupervised Learning 4.Modeling the features of an unlabeled dataset to find hidden structure is known as \_\_\_\_\_\_\_\_\_\_\_\_. A)Supervised Learning  B)Regression  C)Unsupervised Learning  D)Classification 5.Training a model using categorically labelled data to predict labels for new data is known as \_\_\_\_\_\_\_\_\_\_. A)Regression  B)Clustering  C)Classification  D)Feature Extraction  **6. Training a model using labelled data where the labels are continuous quantities to predict labels for new data is known as \_\_\_\_\_\_\_\_\_\_.**  A)Feature Extraction  B)Regression  C)Classification  D)Clustering  **7.Which of the following is used for machine learning in python?**  A)Scikit-learn  B)Seaborn-learn  C)Stats-learn  D)None of the Mentioned |
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| PART 2: Open questions |
| Directions: Read each question carefully and provide the answer on the line. Your answer must be in complete sentences. |
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| 1.What are the types of Machine Learning?2.Explain Classification and Regression.3.What is a Confusion Matrix?4. How is KNN different from K-means clustering? |
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