Trimester: May 2021 - July 2021 **Examination: Practical Examination**		
Programme code:09 **Programme: MCA**	**Class:** FY	**Trimester:** III **(SVU 2021)**
Name of the Constituent College: **K. J. Somaiya Institute of Management**		**Name of the department/Section/Center:** DST
Course Code: 117P05L301	**Name of the Course: Artificial Intelligence and Machine Learning Lab**	
Time: 3 hrs		**Marks: 30**

Instructions:

- *Viva will be taken at the time of practical as well as after the practical if required.*
- *The figures to the right indicate full marks.*
- *Dataset is provided separately.*

Q1. The soybean.csv dataset contains 35 categorical attributes, some nominal and some ordered. Develop a model to predict the class of soybean based on the given attributes. **[20]**

1. Find limitation with data if any in developing the model.
2. Develop the model to predict the soybean class using K nearest neighbors algorithm.
3. Improve the model by changing the various parameters of the algorithm.
4. Evaluate the model.

Q2. Using linear regression algorithm to predict the medical insurance charges based on the data given in med_insurance.csv. **[10]**

1. Develop the model to predict the medical insurances charges.
2. Evaluate the model.