## Short Questions:

- 1. What is Data Science?
- Researching based on data that is called data science. It helps to make decisions with the help of data.
- 2. What is Artificial Intelligence?
- Things that can take descisions like a human. It takes the help of deep learning and neural network.
- 3. What is Machine Learning?
- Taking descisions by depending on data is called machine learning.
- 4. Future of Data Science and Real life applications.
- Modern inventions like Google, YouTube, Facebook are the best example of data science and the real life example. The value of a data scientist is uncountable.
- 5. Why Python so popular? Future of Python.
- Python is a user friendly programming language. We have kore languages like C, C++ etc but python is easy to learn. YouTube, Netflix these are made by the help of python. Recently from the past few years python's users are increasing rapidly.
- 6. Why Python for data analytics?
- Python is a general-purpose language and was not designed for data analysis only, it is also used for program, software, or web development. Python focuses on both simplicity and readability.
- 7. Importance of Python in machine learning.
- In the case of machine learning, python has made the work and the tasks easier for developers, data scientists, and machine learning engineers. Python can be easily used to analyze and compose available data.
- 8. Importance of Python in deep learning & NLP.
- Python is a popular choice for deep learning and NLP. Python has a vast amount of libraries like TensorFlow, KNN, PyTorch, and scikit-learn etc.
- 9. Supervised Learning with examples.
- One of the famous supervised learning problem is predicting house prices. First, we need data about the houses: square footage, number of rooms, features, whether a house has a garden or not, and so on. We then need to know the prices of these houses.
- 10. Unsupervised learning with examples.
- A set of unlabelled data, which is required to analyze and find patterns inside is called unsupervised learning. The examples are dimension reduction and clustering. Jobs:
- 11. Role and responsibilities of a Database Engineer.
- The role of a Database Engineer is, they are responsible for maintaining a

company's database systems to ensure their performance, writing new support programs and scripts to increase data storage capacity, reviewing database and user reports, as well as system information.

- 12. Role and responsibilities of a Data Analyst.
- Data analysts are responsible for analyzing data using statistical techniques, implementing and maintaining databases, gathering data from primary and secondary sources, identifying, analyzing and interpreting trends from the data.
- 13. Role and responsibilities of a Data Engineer.
- Collecting data, researching on data, creating moduels using information are the roles of a Data Engineer.
- 14. Role and responsibilities of a Data Scientist.
- Analyzing on a vast amount of data and separate out the essential informatoion and utilize tools like Python, R etc. are the roles of a Data Scientist.
- 15. Role and responsibilities of a Machine Learning Engineer.
- An ML engineer's primary goals are the creation of machine learning models and retraining systems when needed. Responsibilities vary, depending on the organization.