**Various Sources of Big data**.

Ans - Sources of data can be listed across the world in every department and every thing imaginable. Some of the Sources are as follows -  
1.New York stock exchange.

2.Facebook , Instagaram and other social networking sites.

3.Genealogy sites .

4.The Internet archive .

4.Large Hadron Collider.

**3 V's of Big Data**

Ans - 3 v’s of big Data are as follows -

1.Volume - Big chucks of data that cannot be easily handled traditional RDBMS.

2.Velocity - It’s the rate at which Data is generated. For big data its a blazing fast speed.

3.Variety - Different types of data that are heterogenous is nature and a RDBMS cannot handle it.

**Horizontal Scaling and Vertical Scaling**

Ans - Horizontal Scaling or Scaling out is when you add more machines and distribute the workload and processing on multiple machines rather than one machine.

Vertical Scaling or Scaling up is when you increase one machine’s specification to keep matching with the increasing requirement of the Data.

**Need and Working of Hadoop**

Ans - Need for hadoop-

1.Hardware failure - creating multiple images of single data sets on different machines.

2.Combining the output of different machines rather than one machine doing all the work.

Working- based on google file system.

1.HDFS(**Hadoop Distributed File System)** is the primary distributed storage used by hadoop applications.

2. Map reduce is a programming model used for the processing of Big Data.