**Assignment 1: For Slow Learners**

**Level:** Foundational
**Goal:** To reinforce understanding of core concepts using clear and simple questions.
**Total Marks:** 50
**Instructions:**

* Answer **all questions**.
* Use examples wherever possible.
* Keep answers clear and concise.

**Section A: Basic Understanding (2 x 5 = 10 marks)**

1. Name five popular platforms that help work with big data.
2. Why is Hadoop important when working with big data?
3. What are three good things about using MapReduce?
4. What does "heartbeat" mean in HDFS?
5. What is data replication in Hadoop and why is it used?

**Section B: Short Descriptive Questions (5 x 4 = 20 marks)**

1. What is the Hadoop ecosystem? Name its main parts and explain each briefly.
2. Write a short note on how data is read or written in HDFS by a user.
3. What are CRUD operations in MongoDB? Give one example of each.
4. How is Hive used in big data? Mention its parts and what they do.
5. What is the difference between Flume and Sqoop? Explain in simple terms.

**Section C: Application-Based (10 x 2 = 20 marks)**

1. Explain what HDFS looks like and how it works.
2. List any three features of Apache Spark and explain how Spark connects with Hadoop.