PCET LIBRARY BANGALORE-4.9

CBCS SCHEME

USN | | | | | | | | | | |

BCS714D

Seventh Semester B.E./B.Tech. Degree Examination, June/July 2026
Big Data Analytics

Time: 3 hrs. Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level , C: Course outcomes.

		Module – 1	M	L	C
Q.1	a.	What are the characteristics of data? Define big data and explain evolution of big data.	10	L2	CO1
	b.	Explain the techniques for dealing with unstructured data.	10	L2	CO1
		OR			
Q.2	a.	Explain CAP Theorem. List the advantages of NoSQL.	10	L2	CO1
	b.	Examine the growth of analytics and compare Analytics 1.0, 2.0, 3.0.	10	L2	CO1
		Module – 2			
Q.3	a.	Explain Hadoop Components. Why hadoop is a popular technology.	10	L2	CO2
	b.	Give the hdfs commands to perform the following operations : i) To get the list of directories and files at the root HDFS ii) To create a directory (say sample) in HDFS iii) To copy a file from local file system to HDFS iv) To display the contents of an HDFS file on console v) To remove a directory from HDFS	10	L3	CO2
		OR			
Q.4	a.	Describe the daemons what are part of YARN architecture.	10	L2	CO2
	b.	Discuss the anatomy of file write operations in HDFS with a diagram.	10	L3	CO2
		Module – 3			
Q.5	a.	What is MongoDB. Explain the following with regard to MongoDB. Creating or generating a unique key : i) Database ii) Collection iii) Document	10	L2	CO3
	b.	Examine MongoDB import and MongoDB export commands.	10	L4	CO3

		OR			
Q.6	**a.**	Explain the process of replication and sharding in MongoDB.	**10**	**L2**	**CO3**
	b.	Compare how insert, delete and update statement are written in RDBMS and MongoDB.	**10**	**L4**	**CO3**
		Module – 4			
Q.7	**a.**	Explain different Hive file formats.	**10**	**L2**	**CO3**
	b.	Identify and explain Hive features and Hive Data Units.	**10**	**L3**	**CO3**
		OR			
Q.8	**a.**	What is Pig? What are its features? Explain is Pig Philosophy.	**10**	**L2**	**CO3**
	b.	Demonstrate following relational operators in Pig, with example : Filter, ForEach, GroupBy.	**10**	**L3**	**CO3**
		Module – 5			
Q.9	**a.**	Explain the features of spark.	**10**	**L2**	**CO3**
	b.	Discuss Spark Software Stack.	**10**	**L2**	**CO3**
		OR			
Q.10	**a.**	Define Web Data. What are the features of Web Data.	**10**	**L2**	**CO4**
	b.	Discuss text mining challenges.	**10**	**L2**	**CO4**

* * * * *