

BACHELOR OF TECHNOLOGY (C.B.C.S.) (2014 COURSE)
B.Tech.Sem - VII COMPUTER : WINTER- 2022
SUBJECT : BIG DATA ANALYTICS & ARCHITECTURE

Day : Tuesday

Time : 02:30 PM-05:30 PM

Date : 13-12-2022

W-13668-2022

Max. Marks : 60

N.B.

- 1) All questions are **COMPULSORY**.
 - 2) Figures to the **RIGHT** indicate **FULL** marks.
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Q.1 Explain the cycle of big data management. What is the role of a CMS in big data management? (10)

OR

Q.1 Define structured data and explore the sources of big structured data, also give the details of role of relational databases in big data. (10)

Q.2 A study comparing the efficacy of HIV tests, reports on an experiment which concluded that HIV antibody tests have a sensitivity of 99.7% and a specificity of 98.5%. Suppose that a subject, from a population with a 1% prevalence of HIV, receives a positive test result. What is the positive predictive value? (10)

OR

Q.2 Explain the concept of decision trees with the help of example. (10)

Q.3 What kinds of tools would be used in the following phases and for which kinds of use scenarios? a) Data preparation b) Model building. (10)

OR

Q.3 What is R code for reading .csv, .txt, &.xlsx files ? What R function/functions are used to encode a vector as a category? (10)

Q.4 With the help of suitable example explain analytical data warehouses. Explain the problem with latency. (10)

OR

Q.4 Explain briefly physical infrastructure layer with example. Also design Goals for Mongo DB. (10)

Q.5 Explain Map reduce in detail with diagram. Explain HIVE database in detail. (10)

OR

Q.5 Design database connectivity using MongoDB with suitable example. (10)

Q.6 Define following terms with examples: (10)
a) Sentiment Analysis
b) Digital marketing

OR

Q.6 Explain briefly Credit Risk management in big data. Which companies has big data analytics helped? (10)
