

Roll No.

TCS-351

B. TECH. (CSE) (THIRD SEMESTER)

END SEMESTER EXAMINATION, Jan., 2023

FUNDAMENTAL OF CLOUD COMPUTING AND BIG DATA

Time : Three Hours

Maximum Marks : 100

Note : (i) All questions are compulsory.

(ii) Answer any *two* sub-questions among (a), (b) and (c) in each main question.

(iii) Total marks in each main question are **twenty**.

(iv) Each sub-question carries 10 marks.

1. (a) With abundance of data over various Social Media sites, there exist various gaps in traditional systems to work upon its data analysis. A quick solution to the can be Big Data Analytics Tool. Review various available big data tools present market and rate them according to their work profiles. (CO2)

(b) Distinguish between the following : (CO2)

(i) Supervised and Unsupervised Learning

(ii) Association Rule Mining and Clustering

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- (c) Sophie working as a data analyst in DataLuke company. She received a dataset from her client AccuLogic with attributes like employee name, age, gender, working hours, payment per hour and salary. AccuLogic is planning to automate its employee's salary hike according to the mentioned dataset. Mention the machine learning algorithms that can help Sophie to develop a solution. (CO2)
2. (a) Evaluate the type of data in below : (CO1)
- (i) Weather data stored in Relational Database
 - (ii) Jerry mails to John
 - (iii) Data received after browsing
 - (iv) Personal Data stored in XML
- (b) Discuss Primary Data Mining goals in real world. (CO1)
- (c) HTM, a popular superstore chain is planning to expand its business online to increase its customer base and reachability. Access the capability, advantages, impact of Web-3.0 for developing a solution for this company. (CO1)
3. (a) Amphilo, an online restaurant generates at least 5GB of data in a single day. The company wishes to provide vouchers to its old customers and attract new customers. How can data analysis techniques help Amphilo for achieving its wish ? (CO4)
- (b) Evaluate the use of Unsupervised Learning Algorithms in case of : (CO4)
- (i) Development of Recommendation Engines
 - (ii) Anomaly Detection System

(3)

- (c) "Cloud Storage delivers on demand, just in time capacity and low cost storage." Justify this statement by describing its requirement, types, work and benefits. (CO4)
4. (a) FanDuel Group, the leading sports gaming company in the United States, has accelerated its business expansion and improved its user experience by standardizing on Amazon Web Services (AWS) across both its cloud and on premises operations using AWS Outposts. Evaluate the working of Cloud Computing and the impact of networks from perspective of FanDuel Group. (CO3)
- (b) Discuss the role of SLA in an IT company. (CO3)
- (c) "Big Data and Cloud Computing are not competitors, but collaborators for modern world analytics."—Yes/No. Explain with the help of a real time example. (CO3)
5. (a) Validate the need of Cyber Security in current paradigm. Discuss various domains wherein it acts as backbone. (CO5)
- (b) Scalability helps handling the growing workload with high performance. Discuss and compare its types. (CO5)
- (c) Xingo, a telecom company is trying to locate a fraudster using its network. The company gets data from varied sources such as IP database, Tower database, Adhar data of its users, ID Proof data, etc. and requires integrating it in one schema so that the fraudster could be located. Mention various data integration tools that can be helpful for the company. (CO5)