CSL-579: BIG DATA AND BUSINESS ANALYTICS

Total Marks: 100

CREDITS		
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4	0	0

Note for Paper Setter:
There will be eight questions of equal marks, two in each of the four sections (Section A to D), corresponding to the distribution of the syllabus. The paper setters are requested to make sub-section (not exceeding 4) of the questions and allocate appropriate marks to each sub section.
Note for Candidate:
Attempt five questions in all by selecting one question from each section and the fifth question may be attempted from any sections.

UNIT – I

Introduction to Big Data

Unstructured and Structured data

Introduction to data analytics, big data analytics, Big Data Management, Characteristics of Big Data, Importance of Big Data, Big data use cases, Big data and business, Sources for Big data, Techniques for analysis of Big data.

UNIT – II

Prediction Methods- Introduction, Multiple linear regression, explanatory versus predictive modeling, estimating the regression equation and prediction.

Classification Methods-Introduction, variable selection in linear regression, KNN classifier.

Business case studies for data classification, K-mean Clustering, Bradley-Fayyad-Reina algorithm, Fuzzy C- means Clustering.

UNIT – III

Decision making process in big data- Various types of decision aiding processes, Decision Support Systems(DSS), DSS Framework, Building Decision Support Systems, DSS-pros & cons. Analyzing business decision processes- managerial decisions, decision making processes, redesigning decision processes, Improving security in DSS, Business Intelligence in decision making, competitive Business Intelligence.

UNIT – IV

Social Network Analysis-Social Networks, Blogs & Micro blogs, Sentiment Analysis and opnion mining. Big Data Analytics Tools- Map Reduce, Hadoop, No SQL, Gephi, , Web Data, Web Communities, Document Summarization Techniques**.**

Case Studies for Business Intelligence.

References:

1. Michael Minelli, Michele Chambers, AmbigaDhiraj, "Big Data, Big Analytics", John Wiley, 2013.
2. Chris Eaton, Dirk Deroos, Tom Deutsch, George Lapis, Paul Zikopoulos, "Understanding Big Data: Analytics for Enterprise Class Hadoop and Streaming Data", Tata McGraw Hill Education, 2012.
3. J.C. Lee, " Social Network Analysis", Springer Publications.