Reg. No. | | | | | | | | |

II/IV Semester M.B.A (Day and Eve) Degree Examination, December - 2023

MANAGEMENT

Business Analytics

(CBCS Scheme 2019 Onwards)

Paper : 2.4

Time : 3 Hours **Maximum Marks : 70**

SECTION - A

Answer any Five questions from the following. Each question carries 5 marks. **(5×5=25)**

1. What is business analytics? Brief various types of analytics.

2. Differentiate online transactional processing and online analytical processing.

3. Discuss the challenges involved in data mining.

4. With suitable examples, explain the characteristics of big data analytics.

5. Brief the application of business analytics in finance and marketing.

6. What is the Internet of Things (IoT)? State any five applications of IoT.

7. Explain the process of data mining.

SECTION - B

Answer any Three questions from the following each question carries 10 marks. **(3×10=30)**

8. Explain the various challenges of big data analytics.

9. Explain various techniques of predictive analytics.

10. With suitable examples, explain the various data mining techniques.

11. Big data analytics plays a significant role in managing supply chain and human resources. Justify.

SECTION - C

12. **Compulsory Case Study:** **(1×15=15)**

The healthcare industry historically has produced a great amount of information. While a lot of data is still stored in hard copy form, the current trend of massive digitization is going to improve this. There is a necessity to improve the quality of medical services and, at the same time, reduce the price. Big Data promises to perform a lot of medical and healthcare functions. It is obvious that this trend in technology constantly increases benefits and reduces prices. The latest technology helps with patient access and the patient's experience with their healthcare provider. Moreover, it is solving a lot of global troubles that mankind is faced with. Big Data technology in the healthcare field creates a lot of positive and life-saving outcomes and at the same time, data processing is vital because any mistake or failure can literally cost somebody's life.

Nowadays, Big Data application in healthcare is based on the highly qualified and fast treatment process. Moreover, using Big Data in the healthcare field provides an opportunity to predict the expenses. A huge amount of different statistical data like the number of people with chronic disease, complaints against specific doctors, the number of next visits, epidemic indices, and so on... is recorded for analysis.

Healthcare specialists can use Big Data analysis in order to see the frequency of next visits, skipped appointments, the full time of surgery, if doctors have enough medical supplies, etc. Consequently, these processes are able to enlarge the number of surgeries and, at the same time, reduce the prices. Specialists may perform post-surgery treatment more quickly and, as a result, provide more patients with qualified help. Consequently, all these improvements allow medical service providers to decrease the time of patients' hospital stay or reduce the number of second hospitalizations.

Questions:

a) What are the different types of big data generated by the healthcare industry? Explain with examples.

b) Discuss the application of business analytics for improved services in the healthcare industry.