

**School of Pharmaceutical Management****MBA Pharmaceutical Management****Batch-14th (2022-2024)****Second Year, Term 6 End Term Examination, March 2024****PHRM-739 Business Data Analytics****Time - 3 Hour****Maximum Marks: 50 (Minimum Marks: 20)****Instructions to students:**

- This question paper contains 2 printed pages.
- Don't write anything on the Question Paper except writing your Enrolment No.

Part A**(Maximum Marks: 5)****Q1. Choose the correct option for the following questions (1 mark each):**

- (a) Which of the following best describes the role of business analytics in decision making in the pharmaceutical industry?
- (i) Business analytics is only applicable to financial decisions.
 - (ii) Business analytics helps in analyzing historical data to make informed decisions.
 - (iii) Business analytics is irrelevant in the healthcare sector.
 - (iv) Business analytics is solely focused on qualitative data analysis.
- (b) In predictive analytics, which technique is used to identify the relationship between a dependent variable and one or more independent variables?
- (i) Simple linear regression
 - (ii) Data clustering
 - (iii) Principal component analysis
 - (iv) Chi-square test
- (c) What is the primary goal of utilizing business analytics in decision making?
- (i) To complicate decision-making processes
 - (ii) To improve the accuracy of decisions through data-driven insights
 - (iii) To decrease efficiency in operations
 - (iv) To rely solely on intuition for decision making
- (d) Which of the following best describes the importance of business analytics in the pharmaceutical industry?
- (i) It provides historical data for academic research purposes.
 - (ii) It enables proactive decision making based on data-driven insights.
 - (iii) It only focuses on qualitative data analysis.
 - (iv) It is limited to financial forecasting.
- (e) Which of the following is an example of qualitative data?
- (i) Sales revenue
 - (ii) Temperature
 - (iii) Customer satisfaction rating
 - (iv) Number of employees

Part B

(Maximum Marks: 15)

Answer the following questions.

- Q2.** How does descriptive analytics differ from predictive analytics in terms of their application in decision making? Provide examples to illustrate your answer. (5)
- Q3.** Discuss the importance of data manipulation techniques in preparing data for analysis in the pharmaceutical industry. (5)
- Q4.** Differentiate between qualitative and quantitative data, providing examples of each. (5)

Part C

(Maximum Marks: 30)

Answer the following questions, in detail.

- Q5.** In the context of the pharmaceutical industry, discuss how data visualization techniques such as histograms, box plots, and scatter plots aid in decision making. Provide specific examples. (10)
- Q6.** Utilizing examples from the pharmaceutical industry, discuss the relevance of time series analysis in forecasting sales trends and making informed business decisions. (10)
- Q7.** Discuss how the skills and knowledge acquired in business data analytics can support effective planning, implementation, and evaluation of policies in the pharmaceutical sector. (10)