

(6 pages)

Reg. No. :

Code No. : 30435 E Sub. Code : AMBA 54

B.B.A. (CBCS) DEGREE EXAMINATION,
APRIL 2023

Fifth Semester

Business Administration – Core

INTRODUCTION TO BUSINESS ANALYTICS

(For those who joined in July 2020 only)

Time : Three hours Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. Business analytics results in which of these?
 - (a) Evidence Based Decisions
 - (b) Data Driven Decisions
 - (c) Better Decisions
 - (d) All of these are correct
2. Challenges of Business Analytics
 - (a) Analytical Process (b) Environment
 - (c) Competition (d) Customers

3. Indicate which level of measurement is being used in the given scenario. A car magazine lists the most expensive cars for 2017
 - (a) nominal (b) ordinal
 - (c) Interval (d) Ratio
4. A qualitative variable
 - (a) Always refers to a sample
 - (b) Is not numeric
 - (c) Has only two possible outcomes
 - (d) All of the above
5. Sample space
 - (a) Individual Outcome
 - (b) All possible Outcomes
 - (c) No outcome
 - (d) All the above
6. Commutative Rule $X \cup Y$
 - (a) $Y \cup X$ (b) $Y > X$
 - (c) $X > Y$ (d) None of the above
7. Prescriptive Analytics is used to identify _____
 - (a) Data (b) Optimal Solution
 - (c) Techniques (d) Chart

8. LPP stands for
- Linear Project Problem
 - Large Problem Program
 - Linear Programming Problem
 - None of the above
9. ROE stands for
- Return on Essential
 - Return on empower
 - Rate of Engagement
 - Return on Engagement
10. Level of Marketing Analytics include
- Firm
 - Brand
 - Customer
 - All the above
- PART B — (5 × 5 = 25 marks)
- Answer ALL questions, choosing either (a) or (b).
- Each answer should not exceed 250 words.
11. (a) Explain the components of Business Analytics.
- Or
- (b) What is the need of analytics in the business organization? Explain.

12. (a) Mention various types of data.
- Or
- (b) Explain in brief about the histogram chart.
13. (a) At an e-commerce customer service centre a total of 112 complaints were received. 78 customers complained about late delivery of the items and 40 complained about poor product quality.
- Calculate the probability that a customer complaint will be about both late delivery and product quality.
 - What is the probability that a complaint is only about poor quality of the product?
- Or
- (b) What is random variable? What are the types of random variables?
14. (a) Discuss various assumptions in Linear Programming Problem models.
- Or
- (b) Explain in brief about the steps in formulating a problem as linear programming problem.

15. (a) Write short notes on marketing analytics.

Or

(b) Write short notes of big data analytics.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Distinguish between descriptive, predictive and prescriptive analytics.

Or

(b) Discuss various challenges in data-driven decision making.

17. (a) How to deal with missing data? Explain.

Or

(b) Mention various data visualization tools in Business Analytics.

18. (a) Explain the association rule learning by applying simple probability rule.

Or

(b) A website displays 10 advertisements and the revenue generated by the website depends on the number of visitors to the site clicking on any of the advertisements displayed on the website. The data collected by the company has revealed that out of 2500 visitors, 30 visitors clicked on 1 advertisement, 15 clicked on 2 advertisements, and 5 clicked on 3 advertisements. Remaining did not click on any of the advertisements. Calculate

(i) The probability that a visitor to the website will click on an advertisement

(ii) The probability that the visitor will click on at least two advertisements

(iii) The probability that a visitor will not click on any advertisements

19. (a) Elaborate the sensitivity analysis in Linear Programming Problem.

Or

(b) Explain the steps involved in solving a Linear Programming Problem using Graphical Method.

20. (a) Discuss the recent trends in Financial Analytics.

Or

(b) What is the role of Web and Social Media analytics in Business? Explain