

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -3 EXAMINATION- 2025

BBA V Semester

COURSE CODE (CREDITS): 25BBWHS531

MAX. MARKS: 35

COURSE NAME: APPLIED MARKETING RESEARCH AND ANALYTICS

COURSE INSTRUCTORS: Anupriya Kaur

MAX. TIME: 2 hrs

Note: (a) All questions are compulsory.

Q.N	Question	CO	Marks
Q1	GlowCare, an Indian skincare company, recently launched three variants of its new anti-pigmentation serum: Classic, Herbal, and Vitamin C Boost. The marketing team wants to understand whether these three variants create different levels of customer satisfaction. They conduct a pilot study with 90 customers (30 for each variant) and collect satisfaction scores on a 10-point scale. They are considering the use of Analysis of Variance (ANOVA) to evaluate this. <i>Why is ANOVA the appropriate statistical technique for GlowCare to use in this situation? Explain the theoretical rationale (no calculations needed). If the ANOVA test shows a significant difference, what would be the next theoretical step for the researchers, and why?</i>	CO2	6
Q2	Businesses today collect vast behavioral data—from shopping baskets, app usage logs, web browsing patterns, loyalty programs, and digital payments. Managers often suspect that <i>hidden customer groups</i> exist within this data, but these groups cannot be defined in advance using simple demographics or assumptions. <i>Which statistical technique may be useful for the same. Justify your answer and also suggest how the use of the technique can help frame better marketing strategies.</i>	CO5	6
Q3	Explain the importance of marketing analytics for an educational platform and discuss how analyzing -learner and usage data can help the platform improve student acquisition, engagement, and retention, with reference to real-world EdTech marketing practices.	CO3	5
Q4	Refer the file cluster-exam. Using the variables- Undergrad_GPA,GMAT_score,acceptance_rate,salary_bonus,tution_fees Perform hierarchical cluster and then k-means cluster. Report the following results in your answer sheet. 1) Coefecients of the number of clusters selected by you as per – Agglomeration schedule 2) K-mean cluster results such as – Number of cases in each cluster, <i>F</i> and <i>sig</i> values of each variable and Final Cluster centers.	CO5	7
Q5	Refer the file discriminant-exam. Using the given variables perform discriminant analysis to predict performance as high performer or low performer. Report the following results in your answer sheet. (a) Significant and non-significant variables (b) Log determinants (c) Strength of discriminate function (d) Discriminate function equation Variables: selfcon, anxiety,absence,subtesta,subtestb	CO3	6
Q6	Refer the file discriminant-exam conduct anova analysis on qualification wise difference of means of –selfcon and anxiety. Report the mean values and Anova test <i>F</i> value and <i>sig</i> .	CO5	5