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| **C:\Users\ADMIN\Desktop\j.png** | **JAIPURIA INSTITUE OF MANAGEMENT, INDORE**  Post Graduate Diploma in Management |
| **Course Title: E-Commerce, (Course Code: 40825)**  **End-Term Examination, Term – V (Batch 2021-23) (February, 2023)** | |
| **Time Duration : 2 Hours Total Marks: 40** | |

***General Instructions*:**

1. *Answer the questions as directed. The break-up of the marks is given wherever necessary.*
2. *Marks against each question is indicated to its right.*
3. *Answer all the questions of a ‘Section/Question’ at one place in continuation.*
4. *Answers should be brief and to the point.*
5. *Do not write on the question paper except your roll number.*

**Note: DataSet\_Ecommerce.xls is provided for Q4. Submit two files in part 1 upload word file with all answers and in part 2 upload Excel file with solutions.**

**SECTION - A**

**Q1.** The recommender system of an e-commerce store named Morning Basket identifies relationships between the items Bread and Butter that people buy based on 5000 transactions. The bread was purchased in 500 transactions, Butter was purchased in 350 transactions, and both bread and Butter were (Bread->Butter) purchased together in 150 transactions.

a). Find the support for the purchase of bread.

b). Find the confidence for purchase of (bread->butter).

c). Compute the lift score based on its value comment if the statement is true or false “If the customer buys bread, then they are likely to buy butter also.”

[Formula: Lift(A->C)=Confidence(A->C)/Support(C)]

d).These findings can increase sales in brick mortar stores by placing butter and bread next to each other so that when a customer buys one of the products, they don’t have to walk to buy other products. How such statements can be utilized in e-commerce platforms for increasing sales of these two items? **[2.5\*4=10 Marks]**

**Q2** (a) In a Multi-item forward auction, following set of items are sold A, B, C, D and E and having only one unit of each. Two bidders have submitted following bundle bids, which bidding combination would be giving highest profit. (Show Pictorially)

|  |  |
| --- | --- |
| Buddle of bidder -1 | Buddle of bidder -2 |
| 100 units (A, B, D) | 75 units (A, E, D) |
| 50 units (B, C) | 200 units (D, E) |
| 65 units (B, D, E) | 100 units (A, B) |
| 75 units (B, D) | 75 units (E) |
| 50 units (A, B, C) | 200 units (A) |

b.) The concept of “midnight sale” on an e-commerce website worked in attracting customers when they were not expected. The prices on apparels were slashed, but this attracted a lot of customers, which increased the amount of business that the establishment did during that time. This increased their profits for that time. It proved to be so effective that most e-commerce adopted it as well. e-commerce has made it possible to ease the way the dynamic pricing, justify your answer.  **[5+5=10 Marks]**

**Q3.** Suppose you want to build an E-Commerce store that specializes in selling and delivering goods. The E-commerce platform allows businesses, both big and small to sell their goods online. On this site, customers can manage their business – view sales and inventory.

The company sells various kinds of items worldwide over the internet, it has no physical storefront. Customers pay mostly by visa or MasterCard. Products are picked up and sent to customers from businesses via the company's delivery services. The company and its web site are operated solely by the owner of the businesses at their home office. The owner believes that his e-commerce model will specifically enable them to: Sell different types of items, enable fast delivery, establish a positive company image, add information value for current and future customers, Contain the cost of operation (e.g no physical storefront rent or clerks), develop new customers worldwide, Research competitors and new products.

Since pre-order businesses such as food business get registered on the website, the website accommodates orders the day before in order for businesses to prepare orders the following day for delivery. Some other businesses may take pre-orders as well. Some site features and business policies that the owner had to address included shopping cart features, payment methods, order confirmation, security features, shipping and return policies. Businesses create accounts where they can sell their goods, they can add items they want to sell to their account. A shopping cart keeps track of what you have selected to purchase and allows you to view what is in your cart, add new items and all the details about it are sorted automatically. When you are ready to pay for your purchases, you click a button (usually labeled proceed to checkout) and commit your purchase transaction. Payment methods for credit card purchases need to be established and typically require establishing a bank merchant account. Security is usually built into e-commerce software and uses encryption methods to safeguard personal data. Frequently, the services of a third-party authentication service are also used to validate a site’s security. When customers make purchases, you need to build in a function that automatically confirms receipt of their orders (usually by sending the customer an e-mail with order number and other information on it). Finally, it was necessary to establish a merchandise return policy and shipping policies. These policy issues are business decisions more than they are technical decisions.

a. Give the steps you would take to build the E-commerce website/application for this company?

b. Name the different web pages you will need for this E-commerce platform.

c. Analyze the ethical dilemmas associated to build the E-commerce store. **[4+2+4 =10 Marks]**

**SECTION – B**

**Q4.** The given dataset is collected by analytics firm of New Delhi, they have to take some decisions in order to plan next year marketing campaign, firm has prepared a dashboard by which organizations strategic team could take some data driven-decisions:

**1.** Key Metrics

a) Total Sales

b) Total Profit

c) Total Shipping Cost

d) Average Sales

e) Average Profit

f) Average Shipping Cost

g) Number of Transactions

**2.** Compare Sales by Year and Quarter.

**3.** Top 10 Customer for proving some loyalty plan based on (by Total Sales) displaying Total Sales, Average Sales, Number of Transactions, Highest Sale and Lowest Sale.

**[3.5 +3.5 + 3=10 Marks]**