Q1. Utilizing a pivot table to analyze the fiscal year-wise distribution of loans, which pivot table feature would you use to compare the total loan value originated by each lender annually?{1 Mark}

A) **Value Field Settings to summarize by sum**

B) Calculated Fields to create new data based on existing fields

C) Grouping to consolidate data by years

D) Data slicers to segment the data year-wise

Q2. Data analysis in a mature two-wheeler market indicates that 70% of the current two-wheeler owners show interest in upgrading to a new model within the next five years. Knowing that the market size is stable, with little to no growth in the number of new buyers, what strategy should manufacturers focus on?{1 Mark}

A) Concentrate efforts on attracting first-time buyers to introduce new growth.

B) **Develop a robust trade-in program catering to existing owners looking to upgrade.**

C) Focus on exporting to untapped markets, assuming the local market is saturated.

D) Increase investment in marketing to convert non-owners into first-time buyers.

Q3. Given the following data points, calculate the OEE (Overall Equipment Effectiveness) and write in the text box: {3 Mark}

- Planned Production Hours (PPH): 800 hours
- Lost Time (LOT): 120 hours
- Designed Assembly Speed from Equipment (DA) per Hour: 300 units
- Actual Assembly Speed from Equipment (AA) per Hour: 250 units
- Total Units Assembled (TU): 15000 units
- Defective Units (DU): 900 units

Write the number portion of the percentage. For example, if your calculations result in 0.6423 as the answer, please enter 64.23 and not 64.23%, or 0.6423.

Hint:

OEE = Availability x Performance x Quality

Answer Space: _____%

Answer: **66.58**

Range to be configured: ??? (66.32 - 66.6)

Q4. A company is considering expanding its two-wheeler product line into a new regional market. Preliminary research shows that out of 500 surveyed potential customers, 60% currently do not own a two-wheeler, and 40% of those are considering a purchase within the next year. Based on this data, how should the company view the market potential for expansion? {1 Mark}

A) Highly lucrative, as a significant portion of the market is untapped.
B) Moderately attractive, given the considerable interest among non-owners.
C) Risky, as the majority already own two-wheelers and may not want another.
D) Unfavorable, as the intent to purchase is not sufficiently high.

Q5. Which scenario indicates a potential drawback of having too low an average days of inventory metric in a manufacturing firm?{1 Mark}

A) Enhanced ability to respond quickly to increases in demand.
B) Reduced carrying costs and minimized risk of inventory devaluation.
C) Increased vulnerability to supply chain disruptions leading to production halts.
D) More efficient use of warehouse space and inventory management resources.

Q6. How do e-commerce platforms use the scarcity nudge to influence buyer behavior? {1 Mark}

A) By displaying the high number of users currently viewing a product
B) By showing a countdown timer for special deals, indicating limited time availability
C) By offering an unlimited amount of products to avoid stockouts
D) By providing detailed product descriptions and customer reviews

Q7. How do FinTech companies typically generate revenue through payment services?{1 Mark}

A) By offering all payment services to attract a large customer base focusing less on revenue generation.
B) By charging a flat subscription fee for access to all payment services, irrespective of usage.
C) By imposing high transaction fees uniformly across all types of payment services.
D) By levying transaction fees, percentage commissions, or offering premium features for advanced payment functionalities.

Q8. What is the significance of the NSS as highlighted in the lecture video?{1 Mark}

A) It replaces the need for the economic census
B) It offers high-frequency, detailed sampled data on social and economic aspects

C) It is conducted once every century
D) It solely focuses on the industrial sector

Q9. Dataset based on the scenario of the health and fitness app A/B testing a new update of their app.

- Group: A or B (Control or Variation)
- Daily_Active_Minutes: Time the user engages with the app daily.
- Subscription_Upgrade: 0 (no upgrade) or 1 (upgraded)
- Platform_Type: iOS, Android, or Windows
- Fitness_Level: Beginner, Intermediate, or Advanced

User_ID	Group	Daily_Active_Minutes	Subscription_Upgrade	Platform_Type	Fitness_Level
1	A	20	0	iOS	Beginner
2	A	35	1	Android	Intermediate
3	A	40	0	iOS	Advanced
4	A	25	0	Android	Beginner
5	A	30	1	Windows	Intermediate
6	B	45	1	iOS	Beginner
7	B	50	1	Android	Intermediate
8	B	55	1	iOS	Advanced
9	B	60	0	Windows	Intermediate
10	B	25	1	Android	Beginner

Q 9a) Which group showed a higher overall subscription upgrade rate? {1 Mark}

    a) Group A
    b) Group B
    c) Both groups showed the same rate
    d) Cannot be determined from the given data

Q 9b) which fitness level in Group B is less likely to upgrade their subscription based on the dataset? {1 Mark}

a) Beginner
b) <mark>Intermediate</mark>
c) Advanced
d) All fitness levels upgraded equally

Q 9c) Which platform type shows the highest engagement in terms of Daily_Active_Minutes in Group B? {1 Mark}

a) <mark>iOS</mark>
b) Android
c) Windows
d) All platforms show equal engagement

Q 9d) Is there a significant difference in the Daily_Active_Minutes between users who upgraded and those who did not? {1 Mark}

a) <mark>Yes, users who upgraded spent more minutes</mark>
b) No, there is no noticeable difference
c) Yes, users who did not upgrade spent more minutes
d) Cannot be determined from the given data

Q10. A company is using two different recruitment channels to hire for a new position. The data collected over the past month for both channels is as follows:

Channel X:
- **Number of applicants: 150**
- **Number of applicants who passed the initial screening: 75**
- **Number of applicants who were eventually hired: 15**

Channel Y:
- **Number of applicants: 200**
- **Number of applicants who passed the initial screening: 100**
- **Number of applicants who were eventually hired: 10**

Assuming the company values the efficiency of the initial screening process and the effectiveness in hiring, which channel should the company prioritize for future recruitment, based on the highest ratio of successful hires to applicants who passed the initial screening? {2 Marks}

a. Channel X, due to its higher efficiency in converting screened applicants to hires.
b. Channel Y, due to its larger pool of applicants.
c. Channel X, because it has a higher total number of applicants.
d. Channel Y, as it provides a higher number of applicants who pass the initial screening.

Q11. **Consider the following Dataset from the Safety stock and re - order working.**

	A	B	C	D	E
1	Month	Production Issue	Order Quantity	Purchase Receipts	Ending Inventory
2	March	-	7,840	-	11,230
3	April	6,270	7,698	7,698	"=B2-C3+D3"
4	May	5,900	15,680	7,840	"=E3-C4+D4"
5					

How can you use the OFFSET function to refer to the 'Purchase Receipts' of April when you are in the 'Ending Inventory' cell of May (E4)? {2 Marks}

A) =OFFSET(E4,-1,-2)
B) =OFFSET(E4,-1,1)
C) =OFFSET(E4,-1,-1)
D) =OFFSET(E4,1,-1)

Q12. **Analyzing the dataset, identify the category that is generating the highest revenue and the product within that category that has the highest revenue per unit. {total marks : 2}**

Product ID	Product Category	Sales Quantity	Revenue ($)
P013	Electronics	300	12800
P014	Clothing	270	5400
P015	Home Appliances	110	5500
P016	Electronics	400	16400
P017	Clothing	310	6200
P018	Home Appliances	160	7200
P019	Electronics	200	8600
P020	Clothing	180	3600

P021	Home Appliances	95	3800
P022	Electronics	400	14600
P023	Clothing	155	3100
P024	Home Appliances	120	6000

12 a) Choose among the categories {1 mark}
    a. Home Appliances
    b. Clothing
    c. **Electronics**

Q12 b) Product within category (String Entry) {1 Marks}
Hint: Enter the Product ID(number only) . E.g.: If your selected answer is P021 then in the blank write only "021" (excluding the quote marks)

Answer : P_____

Answer to be configured 019

Q13. What is a critical factor that financial institutions consider when assessing a borrower's creditworthiness for loan approval? {MSQ} [Select All that apply] {2 Marks}

    a. The borrower's employment history.
    b. The borrower's credit score, which reflects their past credit history and repayment behavior.
    c. The borrower's social media activity and online behavior.
    d. The PIN Code of the borrower and the local economic conditions.

Q14. When you want to create a visual representation using a pivot chart that showcases the proportion of loan types (like two-wheeler, commercial, etc.) originated by a specific lender over different years, which chart type would best serve this purpose? {1 Mark}

    a. Pie Chart
    b. Line Chart
    c. Stacked Area Chart
    d. 100% Stacked Column Chart

**Q15. What is the primary function of a Pivot Table in Excel? {1 Mark}**

a. Performing complex calculations
b. <mark>Generating summary reports</mark>
c. Creating advanced graphs
d. Splitting worksheets

Q16. In the context of internal candidate evaluation, how does Excel's text-to-column feature enhance data analysis? {1 Mark}

a. It allows for the merging of multiple columns into a single column, simplifying data.
b. It converts numerical data into text format for qualitative analysis.
c. <mark>It enables the splitting of a single column of data into multiple columns based on a delimiter</mark>
d. It automatically detects and corrects errors in the dataset.

Q17. The figure represents a bubble chart for mobiles, where X-axis represents the Volumes, Y-axis represents the Revenues, and the size of the bubble represents the average days of inventory. Select the option/s that is/are Correct. {2 Mark}
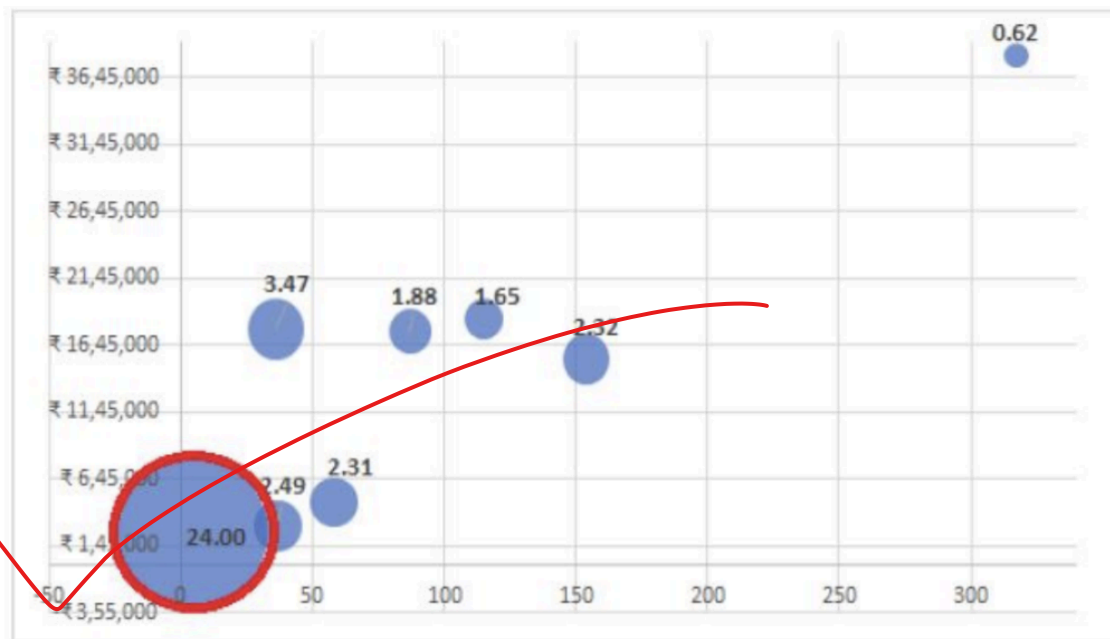
a. <mark>Reduce the inventory for the SKU with 24 as average days of inventory</mark>
b. Increase the inventory for the SKU with 24 as average days of inventory
c. SKU with 24 is an Outlier and hence removes it from analysis.

d. Both Reduce the inventory for the SKU with 24 as average days of inventory & SKU with 24 is an Outlier and hence remove it from analysis.

Q18. How is the data from the Center for Monitoring Indian Economy (CMIE) particularly useful? {1 Mark}

    a. It is used exclusively by the government for policy-making
    b. It offers insights into consumer behavior and industry investments
    c. It focuses solely on the education sector
    d. It provides historical data dating back to the 1800s

Q19. When analyzing regional sales data showing varying demand across regions, what strategy would be the least appropriate for the company to consider for optimizing its sales force distribution? {1 Mark}

    a. Allocate sales agents uniformly across all regions to ensure equal coverage.
    b. Concentrate sales agents in regions showing declining sales to boost figures.
    c. Strategically assign sales agents to regions based on sales volume and revenue generation.
    d. Withdraw sales agents from low-performing regions to cut down costs.

Q20. The hotel manager observes that linens' safety stock level is consistently exceeded, leading to excessive laundry costs and storage issues. Which of the following actions is most appropriate to maintain optimal inventory levels without compromising operational efficiency? {1 Mark}

    a. Increase the safety stock level further to accommodate unexpected demand spikes
    b. Maintain current levels and absorb the additional costs as a buffer for peak seasons
    c. Adjust the safety stock level based on usage patterns and forecasted occupancy rates.
    d. Eliminate the safety stock system and order linens based on immediate needs only.

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