

Subject Name: Excel for Managers
Subject Code: 25MBA112

Max. Marks: 25
Time: 1 Hr. 30Min

Instructions

- Instructions 1: All questions are compulsory.
- Instructions 2: Use of simple calculator is allowed.

CO #	Cognitive Ability	Course Outcome
CO1	Remember	Recall and recognize fundamental Excel interface elements, basic functions, data types, and commonly used formulas.
CO2	Understand	Explain the purpose and application of various Excel features including formatting, sorting/filtering, conditional formatting, and basic data functions.
CO3	Apply	Apply Excel tools such as logical and lookup functions, pivot tables, charts, and what-if analysis to solve structured data problems.
CO4	Analyse	Analyze datasets using sorting, filtering, advanced functions.
CO5	Evaluate	Evaluate data models and dashboards by validating data, interpreting results from functions and pivot tables, and assessing effectiveness of visualization.
CO6	Create	Design and create dynamic, professional spreadsheets incorporating multiple Excel tools (functions, pivot tables, conditional formatting, charts, goal seek) to solve managerial problems or create dashboards.

Q1.	Attempt all the questions: a. What is a cell and a range in Excel explain with one example of each? (2 Marks) b. Explain the use of sorting and filtering in Excel with examples. (3 Marks)	CO1 CO2																														
Q2.	Solve any 1 out of 2 Questions: (5 Marks) a. Below is a list of monthly expenses of a family. <table border="1" style="margin-left: 20px; border-collapse: collapse; text-align: center;"> <thead> <tr style="background-color: #d3d3d3;"> <th></th> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>E</th> </tr> </thead> <tbody> <tr> <th style="font-size: small;">1</th> <th style="font-size: small;">Month</th> <th style="font-size: small;">Food (₹)</th> <th style="font-size: small;">Rent (₹)</th> <th style="font-size: small;">Utilities (₹)</th> <th style="font-size: small;">Total (₹)</th> </tr> <tr> <th style="font-size: small;">2</th> <td>Jan</td> <td>5000</td> <td>8000</td> <td>1500</td> <td></td> </tr> <tr> <th style="font-size: small;">3</th> <td>Feb</td> <td>5500</td> <td>8000</td> <td>1200</td> <td></td> </tr> <tr> <th style="font-size: small;">4</th> <td>Mar</td> <td>6000</td> <td>8200</td> <td>1600</td> <td></td> </tr> </tbody> </table> Using Excel functions — SUM, AVERAGE, MIN, and MAX: 1. Calculate the total expense for each month. 2. Find the average, minimum, and maximum total expenses. 3. Identify which month had the highest total expense.		A	B	C	D	E	1	Month	Food (₹)	Rent (₹)	Utilities (₹)	Total (₹)	2	Jan	5000	8000	1500		3	Feb	5500	8000	1200		4	Mar	6000	8200	1600		CO3
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Answer Should be in Below Format

Function	Formula	Result
SUM		
AVERAGE		
MIN		
MAX		

OR

b. You are given the following dataset in Range A2:D9 representing product details:

	A	B	C	D
1	Product ID	Product Name	Category	Price (₹)
2	P101	Mouse	Accessories	500
3	P102	Keyboard	Accessories	800
4	P103	Monitor	Hardware	6500
5	P104	CPU	Hardware	12000
6	P105	Pendrive	Accessories	700
7	P106	Printer	Hardware	8500
8	P107	Webcam	Accessories	1200
9	P108	Laptop Bag	Accessories	1000

In another area of the sheet, the following details are given:

Cell	Description	Value
F2	Lookup Product ID	P105
G2	Product Price (Output)	—

Question:

- Using the above dataset, apply the concept of VLOOKUP to find the Price of the Product whose Product ID is entered in cell F2.
- Write the complete formula to be entered in cell G2, and mention what output will appear.

Q3. Solve any 1 out of 2 Questions:

(5 Marks)

CO4

a. Below is a small dataset showing the monthly sales of three salespersons:

	A	B	C
1	Salesperson	Product	Sales (₹)
2	Raj	Laptop	80,000
3	Raj	Mobile	60,000
4	Meera	Laptop	70,000
5	Meera	Mobile	55,000
6	Arjun	Laptop	90,000
7	Arjun	Mobile	65,000
8			

- Analyze how you can use a Pivot table to summarize the total sales made by each Salesperson. (Give Steps to create Pivot Table)
- Identify which Salesperson has the highest Total sales.

3. Identify which Product contributes more to the Total Sales.
4. Write one conclusion from your analysis.
5. Give Output in following format.

Total Sales by Sales Person

	A	B
1	Salesperson	Total Sales (₹)
2	Raj	
3	Meera	
4	Arjun	
5	Grand Total	

Total Sales by Product

Product	Total Sales (₹)
Laptop	
Mobile	
Grand Total	

OR

- b. Create Drop-Down List for Department Selection
Below is a list of employees and their departments:

	A	B
1	Employee Name	Department
2	Ramesh	To be selected
3	Pooja	To be selected
4	Arjun	To be selected

1. Using Data Validation write the steps to create a drop-down list in the Department column with the following choices:
 - a. HR
 - b. Marketing
 - c. Finance
 - d. IT
2. Infer how this helps prevent typing errors and ensures data consistency.

Q4.

- a. Below is the data showing the monthly expenses and income of two departments in a company: (5 Marks)

Department	Total Income (₹)	Total Expenses (₹)
Marketing	1,50,000	1,20,000
Operations	2,00,000	1,80,000

1. Using the given data, evaluate which department is performing better financially.
2. Support your evaluation with percentage profit analysis and provide your conclusion.

OR

- b. A finance team maintains a report that uses division and lookup formulas. The formulas sometimes return #DIV/0! or #N/A errors. Two team members propose different formulas for error testing:

Analyst 1 =ISERROR(VLOOKUP(E2, A2:B10, 2, FALSE))

Analyst 2 =ISERR(VLOOKUP(E2, A2:B10, 2, FALSE))

CO5

	<ol style="list-style-type: none"> Evaluate the difference between ISERROR() and ISERR() in this scenario.(Explain what types of errors each will detect.) Which function (ISERROR or ISERR) is more appropriate for lookup operations, and why? 																																																																											
Q5.	<p>a. You are given the following sales data of three products across four regions: (5 Marks)</p> <table border="1"> <thead> <tr> <th></th> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>E</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Product</td> <td>North</td> <td>South</td> <td>East</td> <td>West</td> </tr> <tr> <td>2</td> <td>A</td> <td>1,00,000</td> <td>90,000</td> <td>95,000</td> <td>85,000</td> </tr> <tr> <td>3</td> <td>B</td> <td>80,000</td> <td>75,000</td> <td>85,000</td> <td>70,000</td> </tr> <tr> <td>4</td> <td>C</td> <td>1,20,000</td> <td>1,10,000</td> <td>1,15,000</td> <td>1,05,000</td> </tr> </tbody> </table> <ol style="list-style-type: none"> Describe how you would create a spreadsheet in Excel to present this data clearly to management. Mention two charts or visuals you would include in the spreadsheet and explain their purpose. Suggest one function or tool that can make the spreadsheet interactive in Excel. Write a short conclusion explaining how your spreadsheet will help in decision-making. <p style="text-align: center;">OR</p> <p>b. You are required to develop an Excel-based Employee Performance Report based on below data that automatically highlights performance and provides quick visual insights.</p> <table border="1"> <thead> <tr> <th>Emp-Id</th> <th>Emp_Name</th> <th>Department</th> <th>Performance Score</th> </tr> </thead> <tbody> <tr> <td>E001</td> <td>Sachin</td> <td>Marketing</td> <td>50</td> </tr> <tr> <td>E002</td> <td>Virat</td> <td>Finance</td> <td>80</td> </tr> <tr> <td>E003</td> <td>Saurabh</td> <td>Production</td> <td>70</td> </tr> <tr> <td>E004</td> <td>Ganesh</td> <td>Marketing</td> <td>30</td> </tr> <tr> <td>E005</td> <td>Vaishali</td> <td>HR</td> <td>50</td> </tr> <tr> <td>E006</td> <td>Nikita</td> <td>HR</td> <td>90</td> </tr> <tr> <td>E007</td> <td>Abhay</td> <td>Production</td> <td>91</td> </tr> <tr> <td>E008</td> <td>Aboli</td> <td>HR</td> <td>45</td> </tr> <tr> <td>E009</td> <td>Meena</td> <td>Finance</td> <td>34</td> </tr> <tr> <td>E010</td> <td>Shyam</td> <td>Finance</td> <td>21</td> </tr> </tbody> </table> <ol style="list-style-type: none"> Using logical function categorize performance based on following conditions. Add “Performance” column to the above data set. <ul style="list-style-type: none"> If performance score is above and equal to 70 then performance is “Excellent.” If performance score is above and equal to 50 and below 70 then performance is “Good”. For all the remaining cases performance will be “Needs Improvement”. Apply Conditional Formatting on Performance column if the value of Performance if “Excellent” apply “Green color”, if Performance is “Good” apply “Yellow” color and if Performance is “Needs Improvement” apply “Red” color. write steps for conditional formatting using Excel. Suggest chart (Bar or Column) to visualize performance by department. 		A	B	C	D	E	1	Product	North	South	East	West	2	A	1,00,000	90,000	95,000	85,000	3	B	80,000	75,000	85,000	70,000	4	C	1,20,000	1,10,000	1,15,000	1,05,000	Emp-Id	Emp_Name	Department	Performance Score	E001	Sachin	Marketing	50	E002	Virat	Finance	80	E003	Saurabh	Production	70	E004	Ganesh	Marketing	30	E005	Vaishali	HR	50	E006	Nikita	HR	90	E007	Abhay	Production	91	E008	Aboli	HR	45	E009	Meena	Finance	34	E010	Shyam	Finance	21	CO6
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