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Paper Code : MIS 404/MIS404 BUSINESS DECISIONS USING ADVANCED EXCEL

UPID : 004703

Time Allotted : 3 Hours   *Full Marks :70*

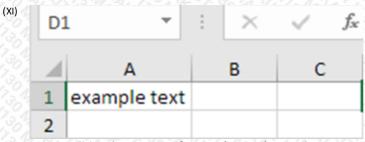*The Figures in the margin indicate full marks.*
Candidate are required to give their answers in their own words as far as practicable

Group-A (Very Short Answer Type Question)

1. Answer any ten of the following :   [1 x 10 = 10]

   (I)   How a relative cell reference can be converted into absolute cell reference?

   (II)   What is the function to join two strings of different cells?

   (III) Under which tab Dynamic Named Range is available?

   (IV)   S.E of a particular character remains same for SRSWR and SRSWOR- True or False

   (V)   Why filter is used in Excel?

   (VI)   .CSV stands for.....

   (VII) What is described by a scatter plot diagram?

   (VIII) Is a decision regarding acceptance or rejection of a Null hypothesis remain always same as per Critical value and p-value criteria?

   (IX)   What are the 2 features of Share Workbook?

   (X)   What is not true for auditing? a) it displays relationships between formulae and cells b) an error button appears next to an active cell c) the process of examining a worksheet for errors in formula d) all are correct

   (XI)

   What will be the output of =MID (A1,5,3) at B1?

   (XII) What is the essence of Multiple Linear Regression Analysis?

Group-B (Short Answer Type Question)

Answer any three of the following :   [5 x 3 = 15]

2. What are the components of Time Series? What are the two different models to solve time series components?   [5]

3. In cell A1 and B1 the words Advance and Excel are written respectively. If you want to write Advance Excel together in cell C1, what would be the appropriate formula to join them by using &?   [5]

4. When can you apply ANOVA? What is the appropriate test for ANOVA? Why is it called ANOVA?   [5]

5. How you can use Advanced Filter feature (write steps clearly) for AND,OR conditions in the following table for USA and Qtr 4 and/or UK and Qtr 1?   [5]

Last Name	Sales	Country	Quarter
Smith	$16,753.00	UK	Qtr 3
Johnson	$14,808.00	USA	Qtr 4
Williams	$10,644.00	UK	Qtr 2
Jones	$1,390.00	USA	Qtr 3
Brown	$4,865.00	USA	Qtr 4
Williams	$12,438.00	UK	Qtr 1
Johnson	$9,339.00	UK	Qtr 2
Smith	$18,919.00	USA	Qtr 3
Jones	$9,213.00	USA	Qtr 4
Jones	$7,433.00	UK	Qtr 1
Brown	$3,255.00	USA	Qtr 2
Williams	$14,867.00	USA	Qtr 3
Williams	$19,302.00	UK	Qtr 4
Smith	$9,698.00	USA	Qtr 1

6. Use Vlookup table under Exmp. If you want to know the reason of N/A, what command with correct syntax shall be used by you? [5]

ID	First Name	Last Name	Salary		ID	28
72	Emily	Smith	$64,901		Salary	N/A
66	James	Anderson	$70,855			
14	Mia	Clark	$1,88,657			
30	John	Lewis	$97,566			
53	Jessica	Walker	$58,339			
56	Mark	Reed	$1,25,180			
79	Richard	Lopez	$91,632			

Group-C (Long Answer Type Question)

Answer any three of the following : [15 x 3 = 45]

7. a) Describe two different commands or ways to calculate correlation coefficient between 3 sets of variables a,b and c in the figure. Which two varibles are nearly positively correlated? Draw their graphs in plain paper using scale for intercept. [8+7]

A	B	C
0	2	2
14	6	11
1	8	3
10	5	13
5	6	4

	A	B	C
A	1		
B	0.191516	1	
C	0.909268	0.108893	1

b) Using the table below, what will be the equation if Quantity sold (Q) is dependent upon two variables Price (P) and Advertising (A)

ANOVA

	df	SS	MS	F	Significance F
Regression	2	9694299.568	4847149.784	50.269	0.001
Residual	4	385700.432	96425.108		
Total	6	10080000.000			

	Coefficients	Std Error	t Stat	P-values	Lower 95%	Upper 95%
Intercept	8536.214	386.912	22.062	0.000	7461.975	9610.453
Price	-835.722	99.653	-8.386	0.001	-1112.404	-559.041
Advertising	0.592	0.104	5.676	0.005	0.303	0.882

8. a) What are basic types of Referencing? Elucidate with distinct examples using your own data. [5+3+7]
   b) What are different types of reference operators? What are the symbols to express them?
   c) What is Data Parsing? Write the sequential steps to convert a text from pdf file into different cells of a worksheet? You can assume the text of pdf file are separated by comma.

9. a) Under which tab in Advance Excel, Regression Analysis is available? [1+7+7]
   b) What is the significance of R^2 value in the table below? Explain clearly.

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.981
R Square	0.962
Adjusted R Square	0.943
Standard Error	310.524
Observations	7

b) What is meant by residual values in the figure below? Explain clearly.

RESIDUAL OUTPUT

Observation	cted Quantity	Residuals
1	8523.009	-23.009
2	4476.048	223.952
3	6265.938	-465.938
4	7160.883	239.117
5	6252.733	-52.733
6	7095.058	204.942
7	5726.330	-126.330

10. a) Write the steps to create Dynamic Named Range. [5+5+5]

Product	Quantity	Price
Computer	2	1000
Keyboard	4	250
Mouse	4	100
Printer	2	50
Total		

b) What will be the value in C7? You have to write correct syntax of SUMPRODUCT for above (7x3) table.

Name	Score	Result
Richard	93	
Jennifer	60	
James	58	
Lisa	79	
Sharon	41	

c) What will be the result in column C and write correct syntax for IF command when PASS is >=60.

11. a) Under which pack ANOVA is available in Excel and what are its variants?   [3+12]

SUMMARY

Groups	Count	Sum	Average	Variance
Column 1	9	435	48.33333	23.5
Column 2	7	420	60	32.33333
Column 3	9	393	43.66667	50.5

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	1085.84	2	542.92	15.19623	7.16E-05	3.443357
Within Groups	786	22	35.72727			
Total	1871.84	24				

b) On the basis of above table answer following: How many columns or population are there in the problem? What kind of ANOVA problem is this one? What is the Null hypothesis for the test? Whether hypothesis will be accepted for this test? Justify with reasons from the table. What is the decision rule using p-value? What is the appropriate test to find the source of variability when a F-test is rejected? (Each question carries 2 marks)

*** END OF PAPER ***