

29835

123

Internal Assessment Test - I

Sub:	STATISTICS FOR MANAGERS	Code:	22MBA14
Date:	02-04-2024	Duration:	1.30 Hrs
		Max Marks:	50
		Sem:	I
		Branch:	MBA

SET- III

		Marks	OBE																																					
			CO	RBT																																				
Part A - Answer Any Two Full Questions (2* 20 = 40 marks)																																								
1 (a)	Explain the term Correlation.	[03]	CO1	L2																																				
(b)	Outline the Uses of Statistics.	[07]	CO2	L4																																				
(c)	Examine the case and calculate the 3 yearly and 5 yearly moving averages for the following time series:	[10]	CO2	L3																																				
<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <th>Year</th> <th>1977</th> <th>1978</th> <th>1979</th> <th>1980</th> <th>1981</th> <th>1982</th> <th>1983</th> <th>1984</th> </tr> <tr> <td>Sales</td> <td>4</td> <td>5</td> <td>6</td> <td>7</td> <td>9</td> <td>6</td> <td>5</td> <td>7</td> </tr> <tr> <th>Year</th> <th>1985</th> <th>1986</th> <th>1987</th> <th>1988</th> <th>1989</th> <th>1990</th> <th>1991</th> <th>1992</th> </tr> <tr> <td>Sales</td> <td>8</td> <td>7</td> <td>6</td> <td>8</td> <td>9</td> <td>10</td> <td>7</td> <td>9</td> </tr> </table>					Year	1977	1978	1979	1980	1981	1982	1983	1984	Sales	4	5	6	7	9	6	5	7	Year	1985	1986	1987	1988	1989	1990	1991	1992	Sales	8	7	6	8	9	10	7	9
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2 (a)	The arithmetic average of a series of 50 items has been computed as 2000. While computing, two values 150 and 450 have been taken as 510 and 540 respectively. Calculate the correct value of the Mean.	[03]	CO1	L3																																				
(b)	Solve the given case and Two cricketers scored the following runs in the several innings. Find who is a better run-getter and who is more consistent player?	[07]	CO1	L3																																				
<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <th>A</th> <td>42</td> <td>17</td> <td>83</td> <td>59</td> <td>72</td> <td>76</td> <td>64</td> <td>45</td> <td>40</td> <td>32</td> </tr> <tr> <th>B</th> <td>28</td> <td>70</td> <td>31</td> <td>0</td> <td>59</td> <td>108</td> <td>82</td> <td>14</td> <td>3</td> <td>95</td> </tr> </table>					A	42	17	83	59	72	76	64	45	40	32	B	28	70	31	0	59	108	82	14	3	95														
A	42	17	83	59	72	76	64	45	40	32																														
B	28	70	31	0	59	108	82	14	3	95																														
(c)	Outline the given problem and follow the table records the number of laborers recruited by a factory and the number of bales of cotton consumed in 10 years. Compute the coefficient of correlation.	[10]	CO2	L4																																				
<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <th>Labou rers</th> <td>368</td> <td>384</td> <td>385</td> <td>361</td> <td>347</td> <td>384</td> <td>395</td> <td>403</td> <td>400</td> <td>385</td> </tr> <tr> <th>Bales</th> <td>22</td> <td>21</td> <td>24</td> <td>20</td> <td>22</td> <td>26</td> <td>26</td> <td>29</td> <td>28</td> <td>27</td> </tr> </table>					Labou rers	368	384	385	361	347	384	395	403	400	385	Bales	22	21	24	20	22	26	26	29	28	27														
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3 (a)	Calculate the average marks secured by the students passing the test. MBA class of 320 students, 120 have failed securing 25 marks on an average. If the total marks of all the students be 8480.	[03]	CO1	L3																																				

(b)	Summarize and compute the 4 yearly moving averages from the following data:								
	Year	1991	1992	1993	1994	1995	1996	1997	1998
	Pdn	40	50	70	80	40	50	60	40
(c)	Judge the case as per the requirement. Using the rank correlation and compute the correlation.								
	A	78	89	97	69	59	79	68	57
	B	125	137	156	112	107	136	123	108
Part B - Compulsory (01*10=10 marks) – CASE STUDY									
4									
	Analyze the case given below. Find the two lines of regressions from the following data by all the possible methods.								
	X	113	102	95	120	140	130	125	
	Y	1.8	1.5	1.3	1.9	1.1	2.0	1.7	

[07]	CO2	
[10]	CO2	L5
[10]	CO2	L4

Course Outcomes (COs)		PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4
CO1:	Understand how to organize, manage, and present the data.	1a, 2a, 2b, 3a					1a, 2a, 2b, 3a			
CO2:	Use and apply a wide variety of specific statistical tools.	1b, 1c, 2c, 3c, 4	3b					1b, 1c, 2c, 3b, 3c, 4		
CO3:	Understand the applications of probability in business.									
CO4:	Effectively interpret the results of statistical analysis.									
	Develop competence of using computer packages to solve the problems.									

Cognitive level	KEYWORDS
L1 - Remember	list, define, tell, describe, recite, recall, identify, show, label, tabulate, quote, name, who, when, where, etc.
L2 - Understand	describe, explain, paraphrase, restate, associate, contrast, summarize, differentiate interpret, discuss
L3 - Apply	calculate, predict, apply, solve, illustrate, use, demonstrate, determine, model, experiment, show, examine, modify
L4 - Analyze	classify, outline, break down, categorize, analyze, diagram, illustrate, infer, select

1071 CO2
L5

CMR
INSTITUTE OF
TECHNOLOGY



SCHEME OF EVALUATION

Internal Assessment Test 2- March 2024

Sub: **SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT**

Date: 05-03-24 Duration: 90mins Max Marks: 50 Sem: III

Code: 22MBAFM304
Branch: MBA

Note: Part A - Answer Any Two Full Questions (20*02=40 Marks)
Part B - Compulsory (01*10= 10marks)

Part	Question #	Description	Marks Distribution		Max Marks
A	1	a) Correlation whether causal or not between two random variables or bivariate data.	3 M	3	20 M
		b) Uses of Statistics: <ul style="list-style-type: none"> ✓ Economics ✓ Commerce ✓ Research ✓ Industry ✓ Insurance 	3 M for points & 4 M for ex. p.n.	7	

	c)	year	3-Y.M.A	5YMA				
		77	4	-				
		78	5	5				
		79	6	6	6.2			
		80	7	7.33	6.6			
		81	9	7.33	6.6			
		82	6	6.67	6.8			
		83	5	6	7			
		84	7	6.67	6.6			
		85	8	7.33	6.6			
		86	7	7	7.2			
		87	6	7	7.6			
		88	8	7.67	8			
		89	9	9	8			
		90	10	8.67	8.6			
		91	7	8.67	-			
		92	9	-	-			
						10		
2	a)	$\hat{x} = \frac{\sum x}{n} \cdot 2000 = \frac{\sum x}{50}$ $\sum x = 2000 \times 50 = 1,00,000$ (+) correct value = 1050 [510 + 540]					3	20 M
		(+) correct value = 600 [150 + 450]						

correct $\sum x = 99550$

correct $\hat{x} = \frac{99550}{50} = \boxed{1991}$

b)	<p>Handwritten notes:</p> <p>Handwritten symbols: λ, σ</p> <p>Handwritten letters: A, B</p> <p>Handwritten text: Cou. of ...</p> <p>Handwritten diagram: A B</p>	<p>Handwritten text: 7 m for ...</p> <p>Handwritten text: 2 m for ...</p>	7
c)	<p>Handwritten text: d =</p>	<p>Handwritten text: 7 m for ...</p> <p>Handwritten text: 3 m for ...</p>	10

	a)	$N = 320 ; F = 120 \times 25 = 3000$ 8480 - 844 M . = 8480 $P = 320 - 120 = 200$ $P \text{ total } = 8480 - 3000 (FM)$ $\bar{x} = \frac{5480}{200}$	3																																																																							
3	b)	<table border="0"> <thead> <tr> <th>Year</th> <th>Pen</th> <th></th> <th>Ay M.A.</th> <th></th> </tr> </thead> <tbody> <tr> <td>1991</td> <td>40</td> <td></td> <td></td> <td></td> </tr> <tr> <td>92</td> <td>50</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td>240</td> <td></td> <td></td> </tr> <tr> <td>93</td> <td>70</td> <td></td> <td>480</td> <td>(60)</td> </tr> <tr> <td></td> <td></td> <td>240</td> <td></td> <td></td> </tr> <tr> <td>94</td> <td>80</td> <td></td> <td>480</td> <td>(60)</td> </tr> <tr> <td></td> <td></td> <td>240</td> <td></td> <td></td> </tr> <tr> <td>95</td> <td>40</td> <td></td> <td>470</td> <td>(58.75)</td> </tr> <tr> <td></td> <td></td> <td>230</td> <td></td> <td></td> </tr> <tr> <td>96</td> <td>50</td> <td></td> <td>420</td> <td>(52.5)</td> </tr> <tr> <td></td> <td></td> <td>190</td> <td></td> <td></td> </tr> <tr> <td>97</td> <td>60</td> <td></td> <td></td> <td></td> </tr> <tr> <td>98</td> <td>40</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Year	Pen		Ay M.A.		1991	40				92	50						240			93	70		480	(60)			240			94	80		480	(60)			240			95	40		470	(58.75)			230			96	50		420	(52.5)			190			97	60				98	40				7	20 M
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		c)	<p>11</p>	<p>7 m for</p> <p>100</p> <p>3</p> <p>2 m for</p> <p>10000</p>	10	
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B	4	<p>a)</p> $\frac{y \text{ on } x}{y = a + bx}$ $\frac{x \text{ on } y}{x = a + by}$		10	10 M
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