

Name:

Enrolment No:



UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

Online End Term Examination, May 2021

Course: Business Statistics

Programme: BBA(LM)

Max. Marks: 100

Semester: II

Time: 03 hrs

Course Code: DSQT1004

SECTION A

Each Question will carry 5 Marks

S. No.		Marks	CO
	Select the most appropriate	(5x6)	
Q 1.	The probability of certain event is a) 0 b) always 1 c) near to 1 d) can't determined		CO1
Q 2.	The complete idea of about distribution of data requires the following(s): a) Measures of central tendency and Dispersion b) Sknew ness c)Kurtosis d)All the above		CO1
Q 3.	Which of the following(s) is a bar diagram a) Deviation bar b) Percentage bar c)Subdivided bar d) All of the above		CO1

Q 4.	Which measures of central tendency is used to analyze nominal data a) Mode b)Median c) Mean d)Geometric mean		CO1
Q 5.	The histogram is an effective graphical technique used to explain a) Skew ness b) Mean c) Kurtosis d) Both a and c		CO1
Q 6.	Two variables are said to be independent if a) $r= 0$ b) $r= +1$ c) $r= -1$ d) $r= +0.5$		CO1

SECTION B

	Each question will carry 10 marks	(10x5)																			
Q 7.	In how many ways can 4 red, 3 yellow and 2 green discs be arranged in a row if the discs of the same color are indistinguishable ?		CO2																		
Q 8.	As part of manpower planning exercise at Maersk the following data is collected on units of output and manpower usage per week for a product during the year 2020. <table border="1" data-bbox="203 1486 1279 1606"> <tr> <td>Output</td> <td>60</td> <td>48</td> <td>35</td> <td>30</td> <td>55</td> <td>40</td> <td>80</td> <td>70</td> </tr> <tr> <td>Man hrs used</td> <td>650</td> <td>450</td> <td>250</td> <td>500</td> <td>550</td> <td>380</td> <td>750</td> <td>700</td> </tr> </table> Calculate the correlation between output and manpower used.	Output	60	48	35	30	55	40	80	70	Man hrs used	650	450	250	500	550	380	750	700		CO2
Output	60	48	35	30	55	40	80	70													
Man hrs used	650	450	250	500	550	380	750	700													

Q 9.	Calculate median rent for the following data:								CO2	
	Monthly Rent	1500-2000	2000-2500	2500-3000	3000-3500	3500-4000	4000-4500	4500-5000		5000-5500
	No. of families paying the rent	17	40	27	75	15	20	6		16

Q 10.	Draw a percentage bar diagram for the following data:			CO3
	Expenditure(in Rs)	Company A	Company B	
	Wages	400	650	
	Materials	250	550	
	Power	175	350	
	Maintenance	180	175	
	Profit	195	275	

Q 11.	Automobile travelling on the NH-11 are checked for speed by a state police radar system. Following is a frequency distribution of speeds:		CO3
	Speed(Miles per hour)	Frequency	
	45-49	12	
	50-54	43	
	55-59	155	
	60-64	180	
	65-69	75	
	70-74	20	
75-79	15		
What is the variance of the automobiles travelling on the NH-11?			

SECTION-C

Each Question carries 20 Marks		(20x1)
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Q 12.	The relation between price and demand of a commodity is as follows:						CO4	
	Demand (in units)	10	8	5	4	2		1
	Price(in Rs)	4	6	5	6	8		9
Find both lines of regression. And also find price when demand is 3 unit.								