

Reg No.: _____

Name: _____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

MBA T1 (Supplementary) Examination, December 2020

Course Code: : 11**Course Name: : QUANTITATIVE TECHNIQUES**

Max. Marks: 60

Duration: 3 Hours

PART A*Answer all questions. Each question carries 2 marks*

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|---|---|------|
| | | Mark |
| 1 | Explain Baye's Theorem. | (2) |
| 2 | Distinguish between Correlation and Regression | (2) |
| 3 | State the meaning of Co efficient of Determination | (2) |
| 4 | Write short notes on Conditional Probability. | (2) |
| 5 | Name any four situations where Poisson Distribution is applied. | (2) |

PART B*Answer any 3 questions. Each question carries 10 marks*

- 6 A product is assembled from three components A, B and C. The probability of these components being defective is respectively 0.01, 0.02 and 0.05. What is the probability that the assembled product will not be defective? (10)

- 7 (a) Write short note on Skewness (10)
(b) Calculate Karl Pearson's Coefficient of Skewness

Size	10	11	12	13	14	15
Frequency	2	4	10	8	5	1

- 8 In a normal Distribution, 31% of the items are under 45 and 8% are over 64 Find the mean and standard deviation of the Distribution? (10)

- 9 Four identical coins are tossed 200 times and the number of heads appearing each time is recorded as follows: (10)

No of heads	0	1	2	3	4
Frequency	17	42	83	40	18

Test the hypothesis that coins are unbiased.

- 10 One thousand girls in a college were graded according to their IQ and the economic conditions of their homes. Use Chi square test to find out whether there is any association between economic conditions at home and I Q of girls. Use 5% level of significance. (10)

Economic condition	IQ		Total
	High	Low	
Rich	100	300	400
Poor	350	250	600
Total	450	550	1000

PART C

Compulsory question, the question carries 20 marks.

- 11 i) Write notes on Scatter diagram. From scatter diagram how do you infer the nature of relationship of the variables. (8)

- ii) From the following data, obtain the two regression equations.

Sales	:	91	97	108	121	67	124	51	73	111	57	(12)
Purchases:		71	75	69	97	70	91	39	61	80	47	
