

Name:  
Enrolment No:



**UNIVERSITY OF PETROLEUM & ENERGY STUDIES**  
**End Semester Examination (Online) – May/June, 2021**

**Program: BBA FT**  
**Subject/Course: Business Statistics**  
**Course Code: DSQT 1004**

**Semester:II**  
**Max. Marks: 100**  
**Duration: 3 Hours**

**Section-A**

Q.No	Question	Marks	COs
1.	The shoe sizes of 9 soldiers selected in a team are 8, 6, 5, 3, 5, 3, 4, 5, 5. Comment on the Skewness of the distribution of shoe sizes.	5	CO1
2.	Give one real life example of a situation in which the mean is not an appropriate measure of central tendency but the mode is an appropriate measure of central tendency.	5	CO1
3	A Computer password consists of four characters. The characters can be one of the 26 letters of the alphabet. Each character may be used more than once. How many different password are possible?	5	CO1
4	Which of the following statement is suited for the coefficient of variation? (a) A measure of central tendency (b) A measure of variation used when two samples have different units (c) The squared value of the standard deviation (d) To predict the value of dependent variable for given value of independent variable	5	CO2
5	If a statistics professor tells his class: "All those who got 80 on the statistics test got 20 on the mathematics test, and all those that got 80 on the mathematics test got 20 on the statistics test", he is saying that the correlation between the statistics test and the mathematics test is: (a) Negative (b) Positive (c) Uncorrelated (d) Can not answer	5	CO3
6	If $b_{XY} = 0.9$ and $b_{YX} = 0.4$ then the value of correlation coefficient will be .....	5	CO4

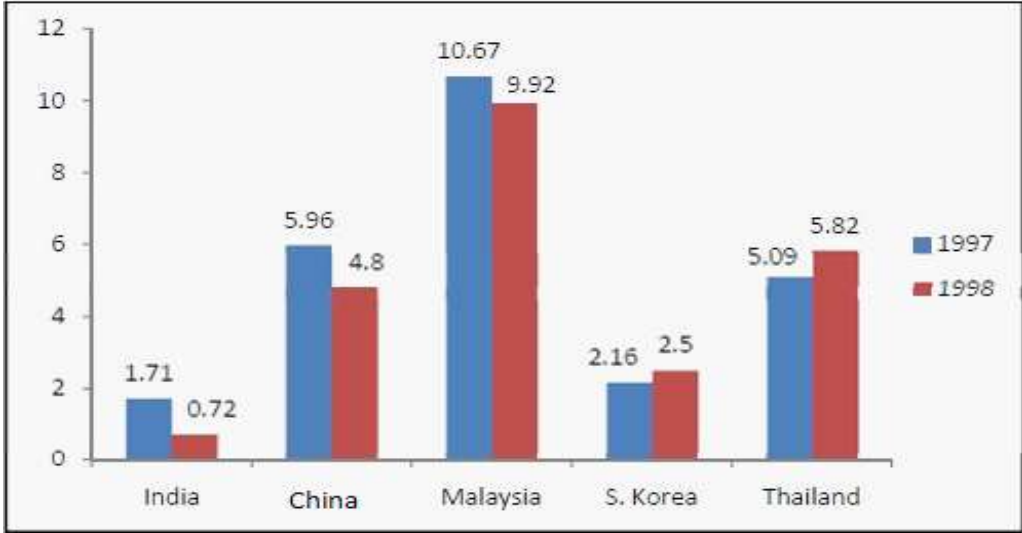
**Section-B**

7	Discuss the difference between Skewness and Kurtosis. Also discuss its different types.	10	CO1
8	The first card selected from a standard 52- card deck is a king. a. If it is returned to the deck, what is the probability that a king will be drawn on the second selection? b. If the king is not replaced, what is the probability that a king will be drawn on the second selection? c. What is the probability that a king will be selected on the first draw from the deck and another king on the second draw (assuming that the first king was not replaced)?	2.5 2.5 2.5	CO2

d. If the king is not replaced, what is the probability that a Queen will be drawn on the second selection?

2.5

9 The following graph shows the data related to Foreign Equity Inflow (FEI) for the five countries for two years- 1997 and 1998. FEI is the ratio of foreign equity inflow to the country's GDP, which is expressed as a percentage in the following graph.



CO2

- (a) Find the ratio between FEI for Malaysia in 1998 and FEI for Thailand in 1997.
- (b) Name the country which has minimum change in the FEI.
- (c) Name the country which has maximum change in the FEI.
- (d) Find the percentage change in the FEI of India from 1997 to 1998.

2.5  
2.5  
2.5  
2.5

10 The following table gives the distribution of marks obtained by 90 students in an examination.

Marks	0-10	10-20	20-30	30-40	40-50	50-60
No. of students	4	10	20	35	15	6

10

CO3

Calculate the standard deviation and quartile deviation for the given data.

11 Calculate the Median and Mode for the following data.

Class Interval	Frequency
50-100	15
100-150	40
150-200	35
200-250	60
250-300	125
300-350	100
350-400	70
400-450	40
450-500	15

10

CO3

**Section-C**

12 The following sample of observations were randomly selected.

X	5	3	6	3	4	4	6	8
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		Y	13	15	7	12	13	11	9	5			
		<p>(a) Determine the two lines of regression equation.</p> <p>(b) The coefficient of correlation between the X and Y and interpret your result.</p> <p>(c) Estimate the value of Y when X is 7.</p>										10	
												6	
												4	CO4