Name:
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UPES
UNIVERSITY WITH A PURPOSE

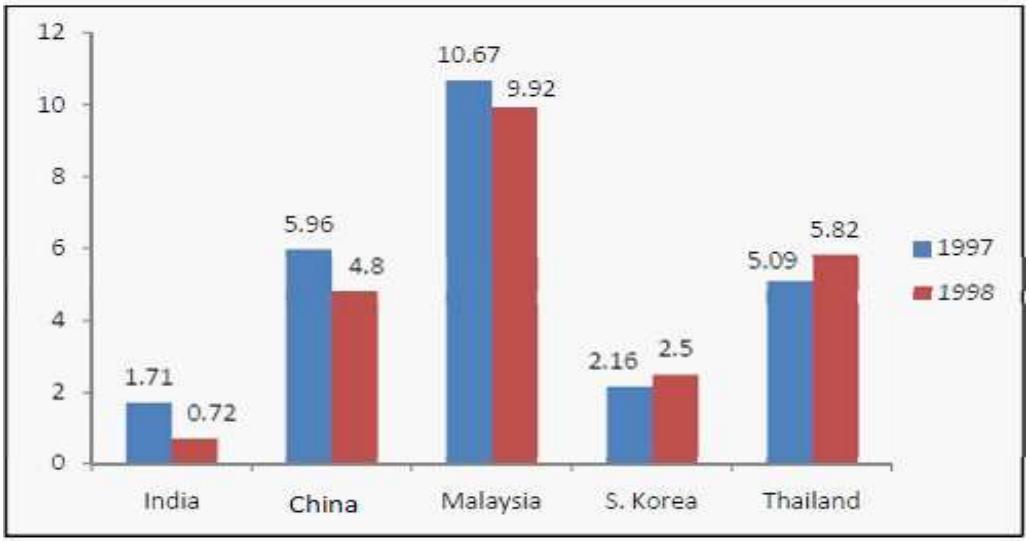
UNIVERSITY OF PETROLEUM & ENERGY STUDIES

End Semester Examination (Online) – May/June, 2021

Program: BBA AVM **Semester:II**
Subject/Course: Business Statistics **Max. Marks: 100**
Course Code: DSQT 1004 **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.  (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	CO2
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 Calculate the standard deviation and quartile deviation for the given data.	10	CO3
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		

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