UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, May 2019

Course: Research Methodology & Report Writing   Semester: IV
Program: BBA (O&G)   Time: 03 Hours
Course code: DSRM 2001   Max. Marks: 100
Instructions: Attempt all Sections

SECTION A

		Marks	CO
	All questions are compulsory.		
Q1	Which one of the following is not a measure of dispersion? (a) Range (b) Kurtosis (c) Mean deviation (d) Standard deviation	2	3
Q2	Which of the following condition holds for a positively skewed distribution of items? (a) Mean=Median=Mode (b) Mean<Median<Mode (c) Mean>Median>Mode (d) None of the these	2	3
Q3	Which one of the following is a measure of correlation? (a) Karl Pearson Co-efficient (b) Co-efficient of variance (c) Mean deviation (d) Standard deviation	2	3
Q4	Which one of the following is a quantitative scale? (a) Nominal (b) Interval (c) Ordinal (d) None	2	2
Q5	If the level of significance in hypothesis testing is 5%,then the confidence level is (a) 5% (b)95% (c) 99% (d) 90%	2	3
Q6	Which one of the following is a non-probability sampling technique? (a) Stratified Sampling (b)Cluster Sampling (c)Simple Random Sampling (d) Convenience Sampling	2	1
Q7	What is the condition to accept null hypothesis in z-test (α denotes the level of significance)? (a) $z=z_\alpha$ (b)$z=\alpha$ (c)$z>z_\alpha$ (d)$z<z_\alpha$	2	3
Q8	Which one of the following is not a part of data processing? (a) Editing (b)Coding (c)Tabulation (d) Interpretation	2	5
Q9	The geometric mean of the numbers, 4, 6, and 9 is (a) 19/3 (b)6 (c)4 (d) $(24)^{1/3}$	2	3
Q10	Which of the following test is done for hypothesis testing? (a) Z-test (b) t-test (c) Chi-square test (d) all of these	2	3

Q11	Write down the components of descriptive statistics.									2	3
Q12	Size of the sample is directly proportional to the z-score for the given confidence interval.(True/False)									2	3
Q13	Mean Deviation is a better measure of dispersion than standard deviation. (True/False).									2	3
Q14	The value of coefficient of correlation "r" lies between -1 and +1. (True/False)									2	3
Q15	Bibliography is the part of preliminary section of a report.(True\False)									2	5
Q16	What is nominal data?									2	2
Q17	What is systematic sampling?									2	1
Q18	What is a platykurtic curve?.									2	3
Q19	What is the geometric mean of 2,6 and 18?									2	3
Q20	What is a sampling frame?									2	1

SECTION-B

Attempt any three.

Q1 The following table gives the frequency distribution of the scores obtained by BBA students.

Scores	40	50	55	60	65	70	75	80
No. of Students	10	12	10	15	18	5	15	5

Find mean and standard deviation of the scores obtained by the students.

10 **3**

Q2 Distinguish between a questionnaire and a schedule.

10 **2**

Q3 It is desired to estimate the mean life time of a certain kind of vacuum cleaner. Given that the population standard deviation= 320 days, how large a sample is needed to be able to assert with a confidence level of 96% that the mean of the sample will differ from the population mean by less than 45 days.

10 **3**

Q4	Define the following:
	    (i) Null hypothesis
	    (ii) Alternative hypothesis
	    (iii) Type I and Type II error
	    (iv) Nominal data
	Also, give null hypothesis and alternative hypothesis for the following
	     A company has stated that their straw machine makes straws that are 4 mm diameter. A worker believes the machine no longer makes straws of this size and samples 100 straws to perform a hypothesis test with 99 % confidence.
		10	5

SECTION-C

	Attempt any two.		
Q1	Ten individuals are chosen at random from a population and their heights in inches are found to be 63, 63, 66, 67, 68, 69,70,70,71 and 71 respectively. In the light of these data, discuss the suggestion that the mean height of the population is 66 inches. Assume α =5%. ($t_{0.05}$=1.833)	15	3
Q2	Describe, in brief, the layout of a research report, covering all relevant points.	15	5
Q3	Discuss various steps of a research process.	15	2