Name: Enrolment No:	UPES UNIVERSITY WITH A PURPOSE

UNIVERSITY OF PETROLEUM & ENERGY STUDIES

End Semester Examination (Online) – Dec, 2020

Program: BBA FBE **Semester:III**
Subject/Course: Research Methodology **Max. Marks: 100**
Course Code: DSRM 3002 **Duration: 3 Hours**

Section-A

Q.No	Question	Marks	COs
1.	Type-1 error is (a) Probability of rejecting the null hypothesis when it is true (b) Probability of accepting the null hypothesis when it is false (c) Probability of accepting the null hypothesis when it is true (d) Probability of rejecting the null hypothesis when it is false	5	CO1
2.	The correlation coefficient is used to determine: (a) A specific value of the y-variable given a specific value of the x-variable (b) A specific value of the x-variable given a specific value of the y-variable (c) The strength of the relationship between the x and y variables (d) Cause and effect	5	CO1
3	Which of the following sampling is non probability sampling. (a) Quota Sampling (b) Stratified Sampling (c) Cluster Sampling (d) Purposive sampling (e) Systematic Sampling	5	CO1
4	We review the relevant literature to know: (a) What is already known about the topic (b) What concepts and theories have been applied to the topic (c) Who are the key contributors to the topic (d) All of the above	5	CO2
5	If for a data mean= 12 median=12 mode=10 What will you conclude about the symmetry of a data. Give your answer with proper justification.	5	CO3
6	A company manufacturing automobile tyres finds that tyre-life is normally distributed with a mean of 40,000 km and standard deviation of 3000 km. it is believed that a change in the production process will result in a better product	5	CO4

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<tr><td></td><td>and the company has developed a new tyre. A sample of 64 new tyres has been selected. The company has found that the mean life of these new tyres is 41200 km. To test that the new tyre is significantly better than the old one, what should be the null and alternate hypothesis?</td><td></td><td></td></tr>
<tr><td colspan="4">Section-B</td></tr>
<tr><td>7</td><td>Discuss different measure of dispersion in brief.</td><td>10</td><td>CO1</td></tr>
<tr><td>8</td><td>Discuss difference between probability and non probability sampling. Also discuss any two probability sampling in brief.</td><td>10</td><td>CO2</td></tr>
<tr><td>9</td><td>What do you mean by hypothesis. Also discuss null and alternative hypothesis.</td><td>10</td><td>CO2</td></tr>
<tr><td>10</td><td>Obtain the two regression equations and find the correlation coefficient between X and Y from the following data
<table>
<tr><td>X</td><td>10</td><td>9</td><td>7</td><td>8</td><td>11</td></tr>
<tr><td>Y</td><td>6</td><td>3</td><td>2</td><td>4</td><td>5</td></tr>
</table></td><td>10</td><td>CO3</td></tr>
<tr><td>11</td><td>What do you mean by data. Discuss the difference between primary and secondary data. Also discuss different methods of collecting primary data.</td><td>10</td><td>CO3</td></tr>
<tr><td colspan="4">Section-C</td></tr>
<tr><td>12</td><td>What is research report. Discuss the layout of research report pointwise.
or
A sample of 200 bulbs made by a company give a lifetime mean of 1540 hours with a standard deviation of 42 hours. Is it likely that the sample has been drawn from a population with a mean lifetime of 1500 hours? You may use 5% level of significance.
At 5% level of significance tabulated value of z test is ± 1.96.</td><td>20</td><td>CO4</td></tr>
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