

Name:

Enrolment No:



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

Course: Business Research Methods
Programme: MBA-PM
Max. Marks: 100

Semester: II
Time: 03 hrs
Course Code: DSRM7002

SECTION A

S. No.		Marks	CO
Q 1	Select the most appropriate answer	(1x20)	
	i. Testing hypothesis is a _____ a. Inferential statistics b. Descriptive statistics c. Data preparation d. Data analysis		CO4
	ii. The purpose of a literature review is to: a. Use the literature to identify present knowledge and what is unknown b. Assist in defining the problem and operational definition c. Identify strengths and weaknesses of previous studies d. All of the above		CO1
	iii. Which method can be applicable for collecting qualitative data? a. Artifacts (Visual) b. People c. Media products (Textual, Visual and sensory) d. All of these		CO3
	iv. Research methodology' refers to: a. The sampling technique. b. The tools that the researcher uses. c. The chain of association between the research question and the research design. d. Qualitative methods.		CO1
	v. Exploratory research addresses which of the following types of question? a. If b. How c. Why d. What		CO2
	vi. 'There is no difference in the incidence of phlebitis around intravenous		CO4

<p>cannulae changed every 72 hours and those changed at 96 hours' is an example of a:</p> <ul style="list-style-type: none"> a. Null hypothesis b. Directional hypothesis c. Non-directional hypothesis d. Simple hypothesis <p>vii. Which one of the following is not a major method of data collection:</p> <ul style="list-style-type: none"> a. Questionnaires b. Interviews c. Secondary data d. Focus groups e. All of the above are methods of data collection <p>xiii . A census taker often collects data through which of the following?</p> <ul style="list-style-type: none"> a. Standardized tests b. Interviews c. Secondary data d. Observations <p>ix. Hypothesis test may also be called as:</p> <ul style="list-style-type: none"> a. Informal test b. Significance test c. Moderating test d. t-test <p>x. How many times the students appear in the research class is the example of _____.</p> <ul style="list-style-type: none"> a. Intensity b. Space c. Frequency d. Direction <p>xi. Determining the sample interval (represented by k), randomly selecting a number between 1 and k, and including each kth element in your sample are the steps for which form of sampling?</p> <ul style="list-style-type: none"> a. Simple Random Sampling b. Stratified Random Sampling c. Systematic Sampling d. Cluster sampling <p>xii. Personal interviews conducted in shopping malls are known as.....</p> <ul style="list-style-type: none"> a. Mall interviews b. Mall intercept interviews c. Brief interviews 		<p>CO3</p> <p>CO3</p> <p>CO4</p> <p>CO4</p> <p>CO1</p> <p>CO3</p>
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	<p>d. None of the given options</p> <p>xiii. What criteria should research questions for a research proposal satisfy?</p> <p>a. They must be understandable</p> <p>b. They should be suitable for development into a research design, so that relevant data may be collected.</p> <p>c. There should be enough research literature available on the topic</p> <p>d. All of the above</p> <p>xiv. The first step in statistical activity is the</p> <p>a. Publication of report</p> <p>b. Processing of data</p> <p>c. Analysis of data</p> <p>d. Collection of data</p> <p>xv. A small scale trial run of a particular component is known as:</p> <p>a. Pilot testing</p> <p>b. Pre-testing</p> <p>c. Lab experiments</p> <p>d. Both a & b</p> <p>xvi. Which is not a source of existing statistics?</p> <p>a. Government</p> <p>b. International agencies</p> <p>c. Personal interviews</p> <p>d. Private sources</p> <p>xvii. When the experimental results are significant</p> <p>a. We reject the null hypothesis</p> <p>b. The results are impressive</p> <p>c. We retain the null hypothesis</p> <p>d. We reject the alternative hypothesis</p> <p>xviii.is a list of references cited in the text.</p> <p>a. Appendix</p> <p>b. Glossary</p> <p>c. Literature cited</p> <p>d. Bibliography</p> <p>xix. Is the process of assigning figures or other symbols to answers so that responses can be put into a limited number of categories or classes?</p> <p>a. Editing</p> <p>b. Coding</p> <p>c. Tabulation</p> <p>d. Classification</p>		<p>CO5</p> <p>CO4</p> <p>CO3</p> <p>CO3</p> <p>CO4</p> <p>CO4</p> <p>CO4</p>
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	<p>xx. When the study is related with more than two variables it is termed as analysis.</p> <p>a. Bivariate b. Multivariate c. Univariate d. Unidimensional</p>		CO4
<p>SECTION B (Attempt any Five questions)</p>			
Q 2	<p>What is a literature review? As a researcher how you will start literature review? What is the purpose and importance of literature survey in research?</p>	6	CO1
Q 3	<p>Indicate the type of measurement scale you would use for each of the following characteristics. Why did you choose the scale you did? Develop the appropriate question for each characteristic and the scale chosen.</p> <p>(i) Color of a dishwasher (ii) Age of a TV (iii) Occupation (iv) Brand Loyalty (v) Readership of a newspaper</p>	6	CO3
Q 4	<p>Suggest and justify suitable sampling technique/ methods for the following situations:</p> <p>a) To study the attitude of general public towards packaged food items b) To study the students behavior towards introduction of dress code in college</p>	6	CO1
Q 5	<p>A company manufacturing brand new personal computers would like to identify potential market segment for their brand. Suggest suitable research design to identify market potential with justification. What would be your sampling frame in this situation?</p>	6	CO1
Q 6	<p>What is the observation method? What are the different types of observation methods available to the researcher? Elaborate with suitable examples.</p>	6	CO3

Q7	'Business research is concerned more with proper fact findings, analysis and evaluation. 'Do you agree with this statement? Give reason in support of your answer.	6	CO5
SECTION-C (Attempt any Five questions)			
Q 8	<p>Sridhar from Bangalore, had developed an electric car-VERVE (It is fully automatic, no clutch, no gears), two door hatch back, easily seating two adults and two children with a small turning radius of just 3.5 meters). It runs on batteries and as compared to other electric vehicles, has an on board charger to facilitate easy charging which can be carried out by plugging into any 15 amp socket at home or work. A full battery charge takes less than seven hours and gives a range of 80 km. In a quick – charge mode (two-and-a-half hours) 80 percent charge is attained which is good enough for 65 km. A full charge consumes just about 9 units of electricity.</p> <p>Somehow the product did not take off the way he expected. He is contemplating about repositioning the car. As he stood looking at the prototype, he knew that there were a couple of questions to which he must find answers before he undertook the repositioning exercise. Who should be the targeted segment –old people, young student just going to college, house wives? What should be the positioning stance? What kind of image would these customers relate to? Was a new name or punch line required? How should the promotions be undertaken? Hyundai had done it with Shah Rukh Khan, should he also consider a celebrity? If yes who?</p> <p>Questions:</p> <p>i. What kind of research study should Sridhar undertake? Define the objectives of his research.</p> <p>ii. Do the stated objectives have scope for a qualitative research?</p> <p>iii. Which method would you recommend and why?</p>	(4) (3) (4)	CO1
Q 9	A survey of 200 workers was conducted regarding their education (school graduates or less, college graduates, university graduates) and the level of their job satisfaction (low, medium, high). These are the results:	10	CO4

	Low	Medium	High
School	20	35	25
College	17	33	20
University	11	18	21

Test at a 5% level of significance whether the job satisfaction depends on the level of education.

Q 10

A company is considering two different television advertisements for promotion of a new product. Management believed that the advertisement A is more effective than advertisement B. Two test market areas with virtually identical consumer characteristics are selected. A is used in one area and B in other area. In a random sample of 60 customers who saw A, 18 tried the product. In another random sample of 100 customers who saw B, 22 tried the product. Does this indicate that advertisement A is more effective than advertisement B, if a 5% level of significance is used? Given critical value at 5% level is 1.96 and at 10% level of significance is 1.645.

10

CO4

Q 11

11 students were given a test in business research methods. They were given a month's extra class and second test was held at the end of it. Does the students have benefited by the extra class.? Given critical value at 5% level with 10 degree of

10

CO4

	freedom is 2.228.																																						
	<table border="1"> <thead> <tr> <th>Students</th> <th>Marks(1st test)</th> <th>Marks(2nd test)</th> </tr> </thead> <tbody> <tr><td>1</td><td>23</td><td>25</td></tr> <tr><td>2</td><td>20</td><td>19</td></tr> <tr><td>3</td><td>19</td><td>22</td></tr> <tr><td>4</td><td>21</td><td>18</td></tr> <tr><td>5</td><td>18</td><td>20</td></tr> <tr><td>6</td><td>20</td><td>22</td></tr> <tr><td>7</td><td>18</td><td>20</td></tr> <tr><td>8</td><td>17</td><td>20</td></tr> <tr><td>9</td><td>23</td><td>23</td></tr> <tr><td>10</td><td>16</td><td>20</td></tr> <tr><td>11</td><td>19</td><td>17</td></tr> </tbody> </table>	Students	Marks(1st test)	Marks(2 nd test)	1	23	25	2	20	19	3	19	22	4	21	18	5	18	20	6	20	22	7	18	20	8	17	20	9	23	23	10	16	20	11	19	17		
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Q 12	<p>The following table gives the units consumed (electricity) that occurs during the various days of the week. Find whether the consumed units are uniformly distributed over the week.</p> <p>Days: Sun Mon Tues Wed Thus Fri Sat</p> <p>units consumed (in number): 14 16 8 12 11 9 14</p> <p>Given that the values of chi-square significant at 5, 6, 7 d.f. are respectively 11.07, 12.59, 14.07 at the 5% level of significance.</p>	10	CO4																																				
Q13	<p>A psychologist claims that the mean age at which children start walking is 12.5 months. To test this claim she took a random sample of 18 children and found that the mean age at which these children started walking was 12.9 months with a standard deviation of 0.8 months. Can you conclude that the mean age at which all children start walking is different from 12.5 months? Use $\alpha=0.05$.</p>	10	CO4																																				

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SECTION A

S. No.		Marks	CO
Q 1	As a researcher under which situation(s) you use the following in research (Max. 30 words)	(2x10)	
	(i) Chi-square test		CO4
	(ii) Two-tailed test		CO4
	(iii) Snowball sampling		CO1
	(iv) Systematic sampling		CO1
	(v) Exploratory research design		CO1
	(vi) Parametric test		CO4
	(vii) Pilot technique		CO1
	(xiii) Regression		CO4
	(ix) Editing		CO5
	(x) Research Hypothesis		CO4

SECTION B

(Attempt any Five questions)

Q 2	How are research designs classified? What are the significant elements of a research design? Illustrate with examples.	6	CO1
Q 3	‘Majority of the researchers make use of primary sources of data and secondary data sources do not really contribute to a scientific enquiry’. Do you agree/disagree with this statement? Explain.	6	CO3
Q 4	What is the observation method? What are the different types of observation methods available to the researcher? Elaborate with suitable examples.	6	CO1
Q 5	What is a questionnaire? Can it be used in all situations? Why /why not? Support	6	CO3

	your answer with suitable examples.		
Q 6	To study the correlation between the heights of fathers and sons, a sample of 900 is taken and a coefficient of correlation of 0.67 is observed, can it be said at 5% level of significance that the correlation in the universe is 0.8?	6	CO4
Q7	When a researcher may use hypothesis in research? Explain.	6	CO4

SECTION-C
(Attempt any Five questions)

Q 8	<p>The following Data summaries the results of survey of 1000 selected households in three cities according to their standard of living. Does this survey provide evidence that standard of living depends on the city they reside? Use $\alpha=0.1$</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="4" style="text-align: center;">Standard of Living</th> </tr> <tr> <th style="text-align: left;">Cities</th> <th style="text-align: center;">Below</th> <th style="text-align: center;">Average</th> <th style="text-align: center;">Above</th> </tr> </thead> <tbody> <tr> <td>Delhi</td> <td style="text-align: center;">15</td> <td style="text-align: center;">120</td> <td style="text-align: center;">330</td> </tr> <tr> <td>Mumbai</td> <td style="text-align: center;">20</td> <td style="text-align: center;">110</td> <td style="text-align: center;">55</td> </tr> <tr> <td>Kolkata</td> <td style="text-align: center;">30</td> <td style="text-align: center;">140</td> <td style="text-align: center;">180</td> </tr> </tbody> </table>	Standard of Living				Cities	Below	Average	Above	Delhi	15	120	330	Mumbai	20	110	55	Kolkata	30	140	180	10	CO4
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Q 9	A company has the head office in Calcutta & a branch in Bombay. The personnel director wanted to know if the workers at the two places would like the introduction of a new plan of work & a survey was conducted for this purpose. Out of a sample of 500 workers at Calcutta, 62% favored the new plan. At Bombay out a sample of 400 workers, 41% were against the new plan. Is there any significant difference between the two groups in their attitude towards the new plan at the 5 % level?	10	CO4																				
Q 10	Watermelons were grown under two experimental conditions. Two random samples of 11 and 9 watermelons show the sample standard deviation of their weights as 0.8 and 0.5 kgs respectively. Test the hypothesis that the variances are equal. Assume that the distribution of weights are normal and Use $\alpha=0.05$	10	CO4																				
Q 11	A professor wants to know if her introductory statistics class has a good grasp of basic math. Six students are chosen at random from the class and given a math proficiency test. The professor wants the class to be able to score above 70 on the		CO4																				

