UNIVERSITY OF PETROLEUM & ENERGY STUDIES

End Semester Examination – May 2017

Program/course:BBA(OG)   Semester – IV
Subject: Research Methodology and Report Writing   Max. Marks   : 100
Code   :BBCQ123   Duration: 3Hrs
No. of page/s:8

1. Attempt the following MCQs giving the required reason.   (2X10=20)

   I.   If a nominal scale is used, it is permissible to calculate which of the following statistics?

        a) Mean
        b) Standard deviation
        c) Range
        d) Percentile
        e) Mode

   II. Conditions favoring the use of a sample over a census include a:

        a) Small population size
        b) Long time frame
        c) Small budget
        d) High cost of sampling errors
        e) Low cost of non-sampling errors

   III. Increasing the size of the sample is likely to:

        a) Decrease sampling error but increase non-sampling error
        b) Increase sampling error but decrease non-sampling error
        c) Decrease both sampling error and non-sampling error
        d) Increase both sampling error and non-sampling error
        e) Increase sampling error but have no impact on non-sampling error

   IV. An advantage of computer-assisted telephone interviewing is:

        a) Interviewing time is reduced
        b) Data quality is enhanced
        c) Questionnaires do not have to be coded
        d) There is little opportunity for interviewer bias
        e) This method tends to achieve high response rates compared to other methods

   V.   If an interview is conducted with a respondent who does not meet the qualifications for a study, what kind of bias has occurred?

        a) Position bias
        b) Respondent bias
        c) Lifestyle bias
        d) Non-response bias
        e) Instrument bias

VI. The telephone rings, you answer, and the caller asks you to respond to a survey. After a few questions, the caller begins to offer you the opportunity to purchase land at a local lake for a summer home. This practice is known as _____ and is _____ in many countries.

   a) Fragging, unethical
   b) Fragging, illegal
   c) Sagging, unethical
   d) Sagging, illegal
   e) Sagging, ethical

VII. If a company is interested in determining the in-store shelf exposure of their brand versus competitive brands, the most effective way to obtain this information is via:

   a) Scanner data
   b) In-store intercepts with consumers observed purchasing a product in the category
   c) Telephone interviews with individuals who made a recent category purchase
   d) An audit
   e) Diary panel data from individuals making purchases in the category

VIII. A recent study of car owners indicated that 10% felt Brand A had the best quality, 9% felt Brand B did, and 6% felt other models did. The remainder had no opinion. The advertising claim that most car owners who gave an opinion believe that Brand A has the best quality is an example of _____ which is _____.

   a) Biased research, unethical
   b) Effective advertising, ethical
   c) Misleading reporting, unethical
   d) Incomplete reporting, unethical
   e) Accurate reporting, ethical

IX. Mr. Sharma goes to a fast food restaurant and records how many people order veg burgers versus cheeseburgers and whether or not they order a coke versus a diet coke. Beth is involved in a _____:

   a) Case study
   b) Naturalistic observation
   c) Survey
   d) experiment

X. To follow journal article would be an example of _____ research; "The benefits of florescent lighting on production in a factory setting."

   a) Applied
   b) Interview
   c) Basic
   d) All of these

Section-B

Attempt any five questions: (5*10=50)

2) In business situations, it is not always possible or feasible to collect information related to every unit of the population under study. Researchers have to adopt a sampling technique best suitable to study a given population. Explain various types of sampling methods with relevant examples?

3) Under what circumstances would you recommend:

   a) A stratified sample? (b) A cluster sample

4) Are the following nominal, ordinal, interval or ratio data? Explain your answers.

   (a) Temperatures measured on the Kelvin scale.

   (b) Military ranks.

   (c) Social security numbers.

   (d) Number of passengers on buses from Delhi to Mumbai.

   (e) Code numbers given to the religion of persons attempting suicide.

5) A contractor spends Rs. 3,000 to prepare for a bid on a construction project, which, after deducting manufacturing expenses and the cost of bidding, will yield a profit of Rs. 25,000 if the bid is won. If the chance of winning the bid is ten percent, compute his expected profit and state the likely decision on whether to bid or not to bid.

6) The following table shows the results of a paired-comparison preference test of four cold drinks from a sample of 200 persons:

Name	Coka Cola	Sprite	Dew	Thumsup
Coka Cola	-	60*	105	45

Sprite	160	-	150	70
Dew	75	40	-	65
Thumsup	165	120	145	-

* To be read as 60 persons preferred Sprite to Coca Cola.

(a) How do these brands rank in overall preference in the given sample?

(b) Develop an interval scale for the four varieties of cold drinks.

7) A company gives on the job training to its salesperson, which is followed by a test. It is considering whether it should terminate the services of any salesperson who does not do well in the test.

The following data give the test scores and sales made by nine salespersons during the last one year:

Test scores   :   14   19   24   21   26   22   15   20   19
Sales (Rs.'000) :   31   36   48   37   50   45   33   41   39

(i)   Compute the coefficient of correlation between test scores and sales.
(ii)   Does it indicate that termination of the services of salespersons with low-test scores is justified?

Section – C (Case Study)   Marks: 30

A new Scheme of health Insurance in Reliance Oil Company

8. A company is considering the Introduction of a new scheme of health insurance for the benefit of its employees. However, before taking any

final decision, it would like to know the reaction of its employees towards this scheme.

Since it has a large number of employees, the company has decided to collect some information from a sample of its employees. Information collected from 50 employees shown in Exhibit1:

1. There are 50 respondent.
2. Col. 2 indicates the new scheme. Respondents were asked to show their preference or dislike on a five-point scale. The value denote the preferences as follows:
   Extremely interested
   Interested
   Indifferent
   Not Interested
   Not at all Interested
3. Sex—M: Male; F: Female
4. Marital Status—M: Married; S: Single
5. Age in years
6. Education: Four categories
   Below Higher Secondary
   Higher Secondary
   Graduation
   Post- Graduation
7. Present Health Insurance scheme: Four categories
   Private Doctor—Own expenses
   Government/corporation Hospital
   Partial reimbursement from an outside agency
   Full reimbursement from an outside agency
8. Monthly Income: Four categories
   Less than Rs. 10000
   Rs. 10000-20000
   Rs. 20000-40000
   Rs. 40000 +

You are now required to analyze the data.

Questions

1. Divide the sample into two groups: (a) those showing interest in the scheme (b) those who are either indifferent or not interested in the new scheme. Cross tabulate these two groups along with education(higher education—graduation and above and Lower education—below

graduation)and age group(older respondents—40 years and above and younger respondents—below 40 years of age) (Marks 20)

2. What is your finding? Is the association statistically significant at the 5% level? (Marks 10)

Exhibit 1

Respondent	Concept rating	Sex	Marital status	Age (years)	Education	Present scheme	Monthly Income
1	3	M	M	25	1	2	1
2	2	M	M	27	3	2	2
3	2	F	S	28	3	3	3
4	5	M	S	24	4	1	4
5	3	M	M	30	2	2	2
6	1	M	S	35	2	3	3
7	2	F	M	39	2	3	2
8	4	F	S	37	4	1	3
9	4	M	M	36	3	1	3
10	2	F	M	29	3	2	2
11	3	M	S	41	1	2	1
12	1	M	S	43	1	1	2
13	2	M	M	40	2	1	1
14	5	F	M	31	3	3	4
15	4	M	S	35	3	1	3
16	3	F	S	45	2	2	3
17	2	F	M	46	1	1	1
18	4	M	S	38	3	1	2
19	5	F	M	40	4	1	3
20	4	M	S	39	4	3	4

21	2	M	S	27	3	2	2
22	3	M	M	27	3	1	3
23	4	F	S	31	3	1	3
24	5	M	M	24	4	2	4
25	2	F	S	32	3	3	3
26	4	M	M	38	4	1	3
27	2	F	M	25	3	3	2
28	3	F	M	29	2	2	2
29	4	M	S	40	3	1	2
30	3	F	S	45	4	2	4
31	4	F	M	35	3	1	3
32	5	F	S	32	4	1	3
33	1	M	S	29	2	3	3
34	2	M	M	42	2	2	1
35	1	F	M	27	1	2	2
36	3	M	M	29	1	3	1
37	4	M	S	28	2	1	3
38	3	M	M	41	2	2	1
39	4	M	S	43	3	1	2
40	3	F	S	50	2	3	1
41	5	M	M	52	3	1	3
42	3	F	M	47	4	2	3
43	4	F	S	30	3	1	2
44	2	M	M	53	1	2	1
45	1	M	S	39	2	3	2
46	4	F	M	55	3	2	2

47	3	M	S	49	1	3	2
48	4	F	M	38	2	1	3
49	3	M	S	27	3	3	2
50	4	F	S	46	3	1	3