



**UNIVERSITY OF PETROLEUM & ENERGY STUDIES  
DEHRADUN**

End-Term Examination – May, 2017

Program/course: BBA(FSM)

Subject: Research Methodology & Report Writing

Code : BBCQ123

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Semester – IV

Max. Marks : 100

Duration : 3 Hrs

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**Section-A**

**1. Select the most appropriate answer.**

**(2x10)**

**i. Statistics is used by researchers to**

- a. Analyze the empirical data collected in a study
- b. Make their findings sound better
- c. Operationally define their variables
- d. Ensure the study comes out the way it was intended

**ii. Which one of the following sets is the measure of central tendency?**

- a. Mean, standard deviation, mode
- b. Mean, median, standard deviation
- c. Arithmetic mean, median, mode
- d. Standard deviation, internal validity, mode

**iii. Departmental stores selected to test a new merchandising display system is the example of**

- a. Quota sampling
- b. Convenience sampling
- c. Judgmental sampling
- d. Purposive sampling

**iv. “There is no relationship between higher motivation level and higher efficiency” is an example of which type of hypothesis?**

- a. Alternative
- b. Null
- c. Correlation
- d. Research

**v. What is the first step in research process?**

- (a) Developing hypothesis (b) Collection of data (c) Formulating research problem (d) Developing hypothesis

**vi. A business research report is the \_\_\_\_\_ stage of a research process.**

- a. First b. Second c. Middle d. Last

**vii. Which of the following research design,discover of ideas & insights is an objective?**

- a. Casual b. Diagnosis c. Exploratory d. Descriptive

**viii. If we took the 500 people attending a school in Dehradun City, divided them by gender, and then took a random sample of the males and a random sampling of the females, the variable on which we would divide the population is called the \_\_\_\_\_.**

- a. Independent variable  
b. Dependent variable  
c. Stratification variable  
d. Sampling variable

**ix. Let's suppose we are predicting score on a training posttest from number of years of education and the score on an aptitude test given before training. Here is the regression equation  $Y = 25 + .5X_1 + 10X_2$ , where  $X_1$  = years of education and  $X_2$  = aptitude test score. What is the predicted score for someone with 10 years of education and a aptitude test score of 5?**

- a. 25 b. 50 c. 35 d. 80

**x. How many times the students appear in the research class is the example of \_\_\_\_\_.**

- a. Intensity  
b. Space  
c. Frequency  
d. Direction

### **Section-B**

**Attempt any Eight questions.**

**(5x8)**

2. What do you mean by hypothesis? How you will decide null hypothesis? Explain with example.

3. What do you mean by sampling frame? How you will decide sampling frame.

4. You are working as a fund manager at XYZ company. The company wants to launch a new financial product in India, therefore the company needs some information about consumer requirements about new financial product. Suggest a suitable research and research design in this situation with justification.

5. When Likert scale is used in research. Frame two questions based on Likert scale?

6. Explain the role of literature review in research? What is the basis of setting of research question(s)?

7. What do you mean by descriptive research design and when it is used.

8. Suppose we have to prepare a dissertation for the partial fulfillment of BBA degree. How you will choose your dissertation topic. Outline the process involved in selection of topic?

9. A small industry is interested in analyzing the effects of advertising on its sales. Over a 5-month period ,it finds the following results:

|   |   |    |    |    |    |
|---|---|----|----|----|----|
| X | 5 | 8  | 10 | 15 | 22 |
| Y | 6 | 15 | 20 | 30 | 39 |

Where X represents the money spent on advertising (in hundreds) and Y represents the total sales(in thousands) . Use these data to determine the correlation coefficient.

10. What do you mean by business research process? Draw the layout of business research process.

### Section-C

**Answer any Four questions.**

**(10x4)**

11. A study was made by a retail merchant to determine the relation between weekly advertising expenditure and sales.The following data were recorded:

|                      |     |     |     |     |     |     |     |     |     |     |     |     |
|----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Advertising cost(Rs) | 40  | 20  | 25  | 20  | 30  | 50  | 40  | 20  | 50  | 40  | 25  | 50  |
| Sales                | 385 | 400 | 395 | 365 | 475 | 440 | 490 | 420 | 560 | 525 | 480 | 510 |

(i) Find the regression line to predict weekly sales from advertising expenditures.

(ii) Estimate the weekly sales when advertising costs is Rs 35.

12. The following data summarises the results of survey of 1,000 selected households to know the investment pattern of people in three cities according to their income. Does this survey provide evidence that the investment pattern depends on income ? Use  $\alpha=0.10$

| Cities   | Below | Average | Above |
|----------|-------|---------|-------|
| Dehradun | 63    | 42      | 15    |
| Delhi    | 58    | 61      | 31    |
| Kolkata  | 14    | 47      | 29    |

13. The following table showing the wage distribution in a factory. Find mean, median and mode of wage. If the management of the factory wants to fix minimum wages per week, suggest an appropriate measure of central tendency.

| Weekly wages(Rs) | 0-10 | 10-20 | 20-30 | 30-40 | 40-50 |
|------------------|------|-------|-------|-------|-------|
| No. of employess | 14   | 25    | 27    | 24    | 15    |

14. Maruti Udyog Limited has randomly collected data about sales per day in Uttarakhand. MUL has collected 50 samples about sales from various places of the state which are as follows:  
 13,12,17,14,16,13,13,14,11,15,10,12,20,16,18,16,17,14,15,15,17,16,19,22,18,19,22,24,18,11,12,  
 17,19,13,18,17,21,17,18,16,14,12,16,18,14,7,16,20,22,10

(i) Construct discrete frequency distribution table of the above data (3)

(ii) For the above data choosing appropriate class interval, form the frequency table (7)

15. The mean weekly sales of soap bars in departmental stores was 140 bars per store. After an advertisement campaign the mean weekly sales in 26 stores for a typical week increased to 147 and showed a s.d. of 16.Can you infer that advertisement is effective in promoting sales? Use  $\alpha=0.05$