



**UNIVERSITY OF PETROLEUM & ENERGY STUDIES
DEHRADUN**

End-Term Examination – May, 2017

Program/course: MBA (GM)

Subject: Business Research Methods

Code : MBCQ732

No. of page/s: 04

Semester – II

Max. Marks : 100

Duration : 3 Hrs

Section-A

1. As a researcher under which situation(s) you use the following in research (Max. 30 words) (2x10)

- (i) Chi-square test
- (ii) Two-tailed test
- (iii) Snowball sampling
- (iv) Systematic sampling
- (v) Exploratory research design
- (v) Parametric test
- (vi) Pilot technique
- (vii) Regression
- (viii) Editing
- (ix) Research Hypothesis
- (x) F- test

Section-B

Attempt any eight questions.

(5x8)

2. How are research designs classified? What are the significant elements of a research design? Illustrate with examples.

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.
4. What is the observation method? What are the different types of observation methods available to the researcher? Elaborate with suitable examples.
5. What is scaling? Describe the various scaling techniques used in business research.
6. What is a questionnaire? Can it be used in all situations? Why /why not? Support your answer with suitable examples.
7. 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?
8. Use post coding for classifying the responses for the question "When I see a Porsche automobile, it makes me think of....."

Responses

- 1 'how much fun I'd have if I owned one'.
- 2 'how unfair our social system is that only a few people have enough money to afford a car like that'.
- 3 'racing'.
- 4 'small cars and how dangerous they are'.
- 5 'the U.S. balance of payments'.
- 6 'what a ball it would be to drive'.
- 7 'my brother, because he's a sports car nut'.
- 8 'how much the insurance must cost to own one'.
- 9 'rich people'.
- 10 'how well I like my Datsun 280ZX'.
- 11 'all those Pittsburgh steelworkers who are laid off'.
- 12 'what a pain they must be to work on'.
- 13 'my wife fainting if I drove one home'.
- 14 'going to a movie'.
- 15 'sticking out my thumb and hitching a ride'.

9. When a researcher may use hypothesis in research? Explain.

10. '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.

Section-C

Attempt any four questions.

(10x4)

11. 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 $\alpha=0.1$

Standard of Living			
Cities	Below	Average	Above
Delhi	15	120	330
Mumbai	20	110	55
Kolkata	30	140	180

12. 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?

13. 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 $\alpha=0.05$

14. 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 test. The six students get scores of 62, 92, 75, 68, 83, and 95. Can the professor have 90 percent confidence that the mean score for the class on the test would be above 70?

15. Twelve cars were equipped with radial tires and driven over a test course. Then the same 12 cars (with the same drivers) were equipped with regular belted tires and driven over the same course. After each run, the cars' gas economy (in km/l) was measured. Is there evidence that radial tires produce better fuel economy? (Assume normality of data, and use $\alpha = .05$.)

Car												
Gas Economy	1	2	3	4	5	6	7	8	9	10	11	12
Y ₁ (radial)	4.2	4.7	6.6	7.0	6.7	4.5	5.7	6.0	7.4	4.9	6.1	5.2
Y ₂ (belted)	4.1	4.9	6.2	6.9	6.8	4.4	5.7	5.8	6.9	4.7	6.0	4.9