

This question paper contains 3 printed pages]

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S. No. of Question Paper : 8094

Unique Paper Code : 2373010014

Name of the Paper : DSE : Research Methodology (NEP)

Name of the Course : B.Sc. (Hons.), Statistics under NEP-UGCF

Semester : VI

Duration : 3 Hours

Maximum Marks : 90

(Write your Roll No. on the top immediately on receipt of this question paper.)

Attempt questions from all the sections as per the instructions.

Section-A

Attempt *all* parts of this question. Give answer of each part in about 100 words.

1. (a) Describe the different types of research, clearly pointing out the difference between an experiment and a survey.
- (b) What do you understand by 'Sample Design' ? What points should be taken into consideration by a researcher in developing a sample design for their research project.
- (c) Distinguish between Research methods and Research methodology.

P.T.O.

- (d) Discuss the various scales of measurements along with suitable examples in data collection.
- (e) Explain clearly the difference between collection of data through questionnaires and schedules. 5×6

Section-B

Attempt any *two* questions. Give answer of each part in about **200** words.

2. (a) Why is probability sampling generally preferred in comparison to non-probability sampling ? Explain the procedure of selecting a simple random sample.
- (b) What do you understand by analysis of variance (ANOVA) ? State the basic assumptions of the analysis of variance. 7½, 7½
3. (a) Enumerate the different methods of collecting data. Which method is the most suitable for conducting enquiry regarding family welfare programme in India ? Explain its merits and demerits.
- (b) Write a brief note on different types of analysis of data stating clearly the significance of each. 7½, 7½
4. (a) Describe some of the important research design used in experimental hypothesis testing research study.
- (b) Explain the meaning and significance of the concept of "Standard Error" in sampling analysis. 7½, 7½

Section-C

Attempt any *two* questions. Give answer of each part in about **500** words.

5. "Interpretation is a fundamental component of research process." Explain.
Describe the precautions that the researcher should take while interpreting his findings. 15
6. Discuss the different non-parametric tests and narrate the various advantages of using non-parametric tests. Also point out their limitations. 15
7. The procedure of testing hypothesis requires a researcher to adopt several steps. In view of the statement, describe all the steps adopted. 15