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15116

2 Hours / 50 Marks

Seat No.

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- Instructions* – (1) All Questions are *Compulsory*.
(2) Illustrate your answers with neat sketches wherever necessary.
(3) Figures to the right indicate full marks.
(4) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. **Attempt any SEVEN of the following:** **14**
- Write any two qualities of a researcher.
 - Define hypothesis.
 - Define “research design”.
 - What is the meaning of “data collection”?
 - Define stratified sampling.
 - State any two uses of research report.
 - Define “coding of data”.
 - Define “mode” and “median”.
 - The age of 8 students in standard V are 10, 11, 11, 12, 10, 10, 10, 11 respectively. Calculate the mean age in the group.

P.T.O.

2. Attempt any THREE of the following:

12

- Distinguish between pure and applied research.
- Explain design of research in detail.
- State and explain the features of case study method.
- Explain systematic sampling and state its advantages over simple random sampling (any two advantages).
- Write any five steps involved in reporting the research paper.
- Nine students obtained the following percentage of marks in the college test (X) and in the final university examination (Y). Calculate the correlation between X and Y and interpret it.

X	51	63	73	46	50	60	47	36	60
Y	49	72	74	44	58	66	50	30	35

3. Attempt any THREE of the following:

12

- State the various sources of hypothesis and explain the types of hypothesis generally used during research work.
- Explain how observation method is used during data collection. State its merits and demerits.
- What is data? Explain its classification.
- List the steps of research process.
- A survey of 320 families with 5 children each revealed the following distribution:

No. of boys	5	4	3	2	1	0
No. of girls	0	1	2	3	4	5
No. of families	14	56	110	88	40	12

Is this distribution consistent with hypothesis that male and female births are equally probable? Apply Chi - Square test.

4. Attempt any THREE of the following:**12**

- a) Explain the meaning of sample size and its determination.
 - b) Explain case study as “Research Design”.
 - c) Find mean, median and standard deviation for the price of the following sarees.
500, 300, 700, 400, 900, 250, 650, 850, 1050, 950.
 - d) Describe ANOVA.
 - e) Discuss use of footnotes and appendices in research.
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