SUBJECT CODE: PR/PE/RS33

## M. A. DEGREE EXAMINATION, NOVEMBER 2011 <br> PUBLIC RELATIONS <br> THIRD SEMESTER

| COURSE | $:$ ELECTIVE |  |
| :--- | :--- | :--- |
| PAPER | $:$ RESEARCH METHODOLOGY |  |
| TIME | $: 3$ HOURS | MAX. MARKS: 100 |

## SECTION - A

ANSWER ALL THE QUESTIONS IN NOT LESS THAN 50 WORDS
$(10 \times 2=20)$

1. Define Research design.
2. What are the qualities of a good research?
3. What are secondary source of data?
4. What is a case study?
5. What are the essential characteristics of a good Questionnaire?
6. Describe and differentiate median and mode.
7. What is sampling error?
8. Mention the various graphical representations of a distribution.
9. What are the limits for correlation?
10. Define null hypotheses and alternative hypotheses.
SECTION - B

## ANSWER ANY FIVE THE QUESTIONS IN NOT LESS THAN 250 WORDS

11. Represent by a percentage bar diagram the following data:

| Items of Expenditure |  | Family A |
| :--- | :--- | :--- |
| Family B |  |  |
| Food | 150 | 350 |
| Clothing | 38 | 120 |
| Rent | 360 | 130 |
| Education | 24 | 68 |
| Miscellaneous | 70 | 95 |

12. Draw a Histogram and frequency polygon for the data given below:

| Weekly wages | $20-24$ | $25-29$ | $30-34$ | $35-39$ | $40-44$ | $45-49$ |
| :---: | :--- | :--- | :--- | :--- | :--- | :--- |
| No. of workers | 4 | 5 | 12 | 23 | 31 | 10 |

13. Calculate the range and semi-inter quartile range of wages:

| Wages(Rs) | $30-32$ | $32-34$ | $34-36$ | $36-38$ | $38-40$ | $40-42$ | $42-44$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Labourers | 12 | 18 | 16 | 14 | 12 | 8 | 6 |

Also calculate the quartile coefficient of dispersion.
14. The following data gives the means of two samples taken from a population. Examine whether there is any significant difference between the two samples, $n_{1}=1000, n_{2}=2000, \overline{x_{1}}=67.5, \overline{x_{2}}=68, \quad \sigma=2.5$.
15. Give a diagrammatic representation for the below data and obtain the mode of the distribution from the figure

| Age in years | $10-20$ | $20-30$ | $30-40$ | $40-50$ | $50-60$ | $60-70$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| No.of Patients | 5 | 19 | 26 | 35 | 15 | 3 |

16. A random sample of 10 boys has the following I.Q. 70, 120, 110, 101, 88, 83, 95 , $98,107,100$. Do these data support the assumption of a population mean I.Q. of 100 ?
17. Define scatter diagram and draw different types of scatter diagrams for perfect correlation, perfect negative correlation, non-linear correlation and no correlation.
18. Find out the regression coefficient of Y on X from the following data

| X | 1 | 2 | 3 | 4 | 5 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Y | 160 | 180 | 140 | 180 | 200 |

SECTION - C

## ANSWER ANY TWO QUESTIONS IN NOT LESS THAN 1000 WORDS.

19. What is a primary data? Discuss the different methods of collection of primary data giving their merits, demerits and their suitability.
20. Explain the theory of sampling and write in detail on the methods of sampling.
21. a) Calculate the correlation coefficient between the height of father and son from the given data:

| Height of father(in inches) | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Height of son (in inches) | 66 | 67 | 65 | 68 | 70 | 68 | 72 |

b) The following table gives the classification of 100 workers according to sex and nature of work. Using $\quad \chi^{2}$-test examine whether the nature of work is independent of the sex of the worker.

| Sex | Skilled | Unskilled | Total |
| :---: | :---: | :---: | :---: |
| Male | 40 | 20 | 60 |
| Female | 10 | 30 | 40 |
| Total | 50 | 50 | 100 |

