## SARDAR PATEL UNIVERSITY

## MHRD Examination $2{ }^{\text {nd }}$ Semester Thursday, Date 23-04-2015

Session: Morning Time: 10:30 am to 1:30 p.m. Subject / Course Code: PA02CHRD04 Paper No. 04 Subject / Course Title: Research Methodology \& Statistics-I

Total Marks: 70
Instruction: Use of non-programmable calculator is allowed.

Q-1 Select the right option from the options available.

1. Which of the following is/are research designs

| (a) | Exploratory |
| :--- | :--- |
| (c) | Causal |

(b) Desctiptive
2. What is mailed to respondents who are expected to read, understand and answer the questions?

| (a) | Schedule | (b) | Research format |
| :--- | :--- | :--- | :--- |
| (c) | Observation schedule | (d) | Questionnaire |

3. Literature Review means

| (a) | Reviewing fresh data | (b) | Reviewing research 'data - |
| :--- | :--- | :--- | :--- |
| (c) | Reviewing existing research | (d) | Both (b) and (c) |

4. The process of selecting group of respondents is known as

| (a) | Sample |
| :--- | :--- |
| (c) | Sampling Design |

(b) Sampling technique
(d) None of these
5. When phenomena are grouped into categories with uniform ranges, researcher would adopt

| (a) | Interval scale | (b) | nominal scale |
| :--- | :--- | :--- | :--- |
| (c) | Ordinal scale | (d) | Ratio scale |

6. Research proposal is

| (a) | Tentatively stated problem | (b) | Tentatively identified topic |
| :--- | :--- | :--- | :--- |
| (c) | Plan or blue print of research process | (d) | Tentatively stated outcome of the research |

7. The value of correlation ranges from

| (a) | $-1 \leq \mathrm{r}<0$ | (b) | $0<\mathrm{r} \leq 1$ |
| :---: | :--- | :--- | :--- |
| (c) | $0<\mathrm{r}<0.5$ | (d) | $-1 \leq \mathrm{r} \leq 1$ |

8. Which of the following represents the correct order for these five main sections of a dissertation?

| (a) | Conclusion, Introduction, Methods, <br> Literature Review, Results | (b) | Methods, Results, Conclusion, Literature Review, <br> Introduction |
| :---: | :--- | :---: | :--- |
| (c) | Literature Review, Results, Methods, <br> Introduction, Conclusion | (d) | Introduction, Literature Review, Methods, <br> Results, Conclusion |

9. What do the researchers use to analyze the data?

| (a) | Statistical tools | (b) | Mathematical methods |
| :---: | :--- | :--- | :--- |
| (c) | Index numbers | (d) | Probability methods |

10. Variance of the following frequency distribution is approximately equal to $\qquad$
CLASSES FREQUENCY
2-4
2
4-6
5
6-8
4
8-10 $\quad 1$

| (a) | 2.5 | (b) | 2.9 |
| :--- | :--- | :--- | :--- |
| (c) | 5.0 | (d) | 3.9 |

Q-2 What is Research? Explain Research Process with suitable illustration of each step.

Q-2 Explain Questionnaire and criteria of a sound questionnaire. How to construct Questionnaire?

Q-3 How would you define a research design? Explain types of research design along with distinguish features of each design.

Q-3 What is Review of Literature? Explain Purposes \& objectives of Literature review and discuss types of resources available for searching the related literature.

Q-4 What are the Measurement Scales? Explaius s. aling techniques with examples.

## OR

Q-4 What is the difference between a population and a census? Explain types of Sampling techniques in details.

Q-5 Do as directed (Any three)

1. Differentiate between Qualitative and Quantitative research
2. Write a short note on Research report components
3. From the following data of two random variables X and Y , find the correlation by short cut method and write down the conclusion of it.

| X | 36 | 24 | 48 | 60 | 48 | 72 | 60 | 84 | 36 | 96 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Y | 120 | 100 | 150 | 180 | 140 | 200 | 160 | 220 | 120 | 240 |

4. The data on dividend declared in percentage is presented in the following frequency distribution table for a sample of 107 companies. Compute the variance, S. D and Coefficient of variation.

| Dividend <br> Declared | $0-10$ | $10-20$ | $20-30$ | $30-40$ | $40-50$ | $50-60$ | $60-70$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. of <br> companies | 5 | 10 | 13 | 25 | 30 | 16 | 8 |

5. Following table gives the results of three different drugs administered for a disease:

| $\mathbf{A}$ | 20 | 30 | 20 | 15 | 20 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathbf{B}$ | 15 | 25 | 30 | 20 | 22 |
| $\mathbf{C}$ | 22 | 25 | 30 | 25 | 21 |

Find out whether the response of the patient varies significantly for different drugs at $5 \%$ significance level. $($ Table value $=3.88)$
6. Calculate co-efficient of rank correlation from the marks scored by 15 students in two subjects as given below

| Student No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| HRD | 90 | 75 | 30 | 56 | 45 | 90 | 27 | 32 | 90 | 30 | 50 | 52 | 56 | 40 | 49 |
| Research | 39 | 46 | 52 | 75 | 79 | 76 | 50 | 45 | 49 | 50 | 52 | 50 | 73 | 43 | 73 |

