

D.K.M COLLEGE FOR WOMEN (AUTONOMOUS) VELLORE -1.

RESEARCH METHODOLOGY-15CPCO3D

II M.COM -QUESTION BANK

UNIT-I SECTION- A (6 MARKS)

1. Define research. What are the scopes of research?
2. Define research. What are the common barriers to social science research?
3. Briefly explain criteria of a good research problem.
4. What are the characteristics of good research?
5. Explain the nature and objective of research.
6. Define Hypothesis. What are the types of research hypothesis.
7. Discuss about one tailed test and two tailed tests.
8. Explain the type I and type II error.
9. What are merits and demerits of research design.
10. Distinguish between research methods and Research methodology.
11. What is the necessity of defining a research problem?
12. Describe fully the techniques of defining a research problem.
13. Explain the meaning and significance of a Research design.
14. Describe some of the important research designs need in experimental hypothesis-testing research.
15. List out the characteristics of data and sources of secondary data.
16. What are the merits and demerits of sampling?
17. Distinguish between Restricted and unrestricted sampling.
18. Distinguish between convenience and purposive sampling.
19. Distinguish between systematic and stratified sampling.
20. Distinguish between cluster and Quota sampling.
21. Explain the term "sampling errors".
22. What are the criteria of selecting a sampling procedure?
23. Explain the merits and demerits of primary data.
24. Explain the difference between questionnaires and schedules.
25. Discuss interview as a technique of data collection.
26. What are the quidding considerations in the construction of questionnaire?
Explain.

27. Explain the merits and demerits of secondary data.

28. Write short notes on "observation method".

29. Write short notes on

- A] Depth interviews
- B] Pantry and store audits
- C] Warranty cards
- D] Indian sampling
- E] Non-Random sampling
- F] Questionnaire
- g] Schedules
- h] Sampling errors.

30. Calculate mean and median

x-> 12,50,10,9,11,14,6.

31. Calculate mode and Geometric Mean

x-> 84,91,72,68,87,78.

32. Calculate Harmonic mean and Range

x-> 70,60,75,90,65,80,42,65,72.

33. Calculate mean derivation and its coefficient

x->2,2,3,5,6,8,5,9,5.

34. Calculate standard derivation and its coefficient

x->82,93,50,54,72.

35. Calculate standard derivation and its coefficient of skewness.

x->5,10,15,20,25,30,35.

36. Calculate Karl Pearson's coefficient of skewness.

x-> 5,10,15,20,25,30,35.

37. Calculate Bow lays coefficient of skewness.

x-> 2,8,22,34,16,10,8.

38. Calculate mean

X->	1	2	4	6	12
f->	12	6	3	2	1

39. Calculate mean

x->	41	42	43	44	45	46
f->	5	8	13	12	7	5

40. Calculate mode

x->	10	20	30	40	50	60
f->	6	14	29	31	36	38

41. Calculate Geometric mean

x->	1000	80	40	750	100	150	120	60
f->	1	50	25	2	3	4	3	5

42. Calculate Harmonic mean

x->	10	20	25	40	50
f->	20	30	50	15	5

43. Computer coefficient of quartile deviation.

x->	60	62	64	66	68	70	72
f->	12	16	18	20	15	13	9

44. Computer co efficient of mean deviation.

x->	2	4	6	8	10	12	14	16
f->	2	2	4	5	3	2	1	1

45. Computer coefficient of standard deviation.

x->	50	60	70	80	90	100
f->	17	22	15	13	27	31

46. Two samples of size 40 and 50 have the same mean 53, but different standard deviations 19 and 18 respectively. Find the standard deviation of the combined sample of size 90.

47. Mean and standard deviation of 100 items are calculated by a student as 50 and 5. But while calculating them, 2 items were taken as 40 and 50 instead of 30 and 60. Find the correct mean and standard deviation.

48. Calculate Karl Pearson's coefficient of skewness

X	1	2	3	4	5	6	7
F	10	18	30	25	12	3	2

49. Calculate Pearson's coefficient of Skewness

X	12.5	17.5	22.5	27.5	32.5	37.5	42.5	47.5
F	28	42	54	108	129	61	45	33

50. Calculate Bowley's coefficient of skewness

X	11	12	13	14	15
F	3	9	6	4	3

51. Calculate Bowley's coefficient of skewness

X	0	1	2	3	4	5	6
F	7	10	16	25	18	11	8

51. Calculate correlation coefficient

X	60	63	65	64	68
Y	50	53	60	67	70

52. Calculate correlation coefficient

$N=10$, $E_x=140$, $E_y=150$, $E(x-10)(y-15)=60$, $E(y-15)^2=215$

$E(x-10)^2=180$

53. Calculate rank correlation

X10	8	1	2	6	9	3	5	4	7
Y6	10	5	4	3	1	2	9	8	7

54. Calculate Spearman's rank correlation

X	48	35	17	23	47
Y	45	20	40	25	48

55. Calculate regression equations

X	6	2	10	4	8
Y	9	11	5	8	7

56. $E_x=130$, $E_y=220$, $E_x^2=2288$, $E_y^2=5506$, $E_{xy}=3467$, $N=10$. Calculate regression Y on x. if $y=16$

57. Calculate the correlation coefficient, $N=10$, $E_x=350$, $E_y=310$, $E(x-35)^2=162$, $E(y-31)^2=222$, $E(x-35)(y-31)=92$. Find regression line y on x.

58. Fit a brand line to the following data by semi-average

Year	1989	1990	1991	1992	1993	1994	1995
Sales	112	115	124	120	118	126	122

59. Calculate three year moving averages.

Year	1968	1969	1970	1971	1972	1973	1974	1975	1976
Production									

60. Fit a straight-line trend by using least squares

Year	1987	1988	1989	1990	1991	1992	1993	1994
Earnings	38	40	65	72	69	60	87	95

61. Bring out various components of research table.

62. What are the main errors committed in interpretation of research findings?

63. Write short notes on a) editing

B) coding

C) clarification

D) tabulation

64. Distinguish between field editing and central editing?

65. Define clarification. Explain the types of clarification.

66. Define tabulation. Explain the parts of tabulation.

67. Write short note on

A] Measure of central tendency.

B] measure of variation.

C] measure of strainers

D] chi-square test

E] An ova test

F] correlation

G] regression

H] Time series

I] Index numbers

J] L.P.P

68. Discriminate the average is very essential for sound statistical analysis.

69. Why tabulation is considered essential in a research study? Narrate the characteristics of a good table.

70. Write a brief note on the “task of inter predation” in the context
Of research methodology.

71. “Interpretation is a fundamental component of research process”. Explain.

72. Write a short note on “Documentation” in the context of a research report.

73. What are the different types of report? Explain.

74. Write a short note on the following,

A] The techniques of writing report.

B] Characteristics of a good research report.

C] Bibliography and its importance in context

D] Rewriting and polishing of report.

75. What points will you keep in mind while preparing a research report? Explain.

76. What are the different forms in which a research work may be reported. Discuss.

77. Explain briefly the essentials & good research report.

Section -B [15 marks]

1. Briefly describe the different steps involved in a research process.
2. Describe the different types of research. Discuss.
3. Briefly explain the term “Hypothesis”. Discuss.
4. Briefly explain the term “Research problem”. Discuss.
5. Briefly explain the term “Research Designs”. Discuss.
6. Explain the formulations of Research. Discuss.
7. Explain the types of probability sampling.
8. Explain the types of Non-probability sampling.
9. What are the methods of primary data. Explain.
10. What are the methods of secondary data. Discuss.
11. Explain the importance of sampling and non-sampling errors.
12. Explain the term “graphic representation” Discuss
13. What are the different types of diagrams? Explain.
14. Explain the importance of SPSS package in research. Discuss.
15. Briefly explain the term “processing of data”.
16. Briefly explain the term “Analysis of data.
17. Explain the different types of table. Discuss.
18. Calculate Mean, Median, mode.

x	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90
F	4	12	40	41	27	13	9	4

19. Calculate Geometric and Harmonic mean.

X	10-20	20-30	30-40	40-50	50-60
F	4	6	10	7	3

20. Calculate quartile deviation and mean deviation

X	10-20	20-30	30-40	40-50	50-60	60-70	70-80
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F	4	6	10	20	10	6	4
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21. Calculate standard deviation

X	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-50
F	6	5	15	10	5	4	3	2

22. Calculate coefficient of skewness by Karl Pearson's method

X	10-20	20-30	30-40	40-50	50-60
F	18	20	30	22	10

23. Calculate Bowley's coefficient of Skewness.

X	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
F	5	9	17	29	45	60	70	78
X	80-90	90-100						
F	83	85						

24. Fit a Straight-line trend by using least squares

Year	1996	1997	1998	1999	2000	2001
Production	7	9	12	15	18	23

25. Use graphical method by L.P.P

Maximize $z=10x+15y$

Subject to the constraints, $2x+y \leq 26$

$$2x+4y \leq 56$$

$$-x + y \leq 5$$

$$\text{And } x, y \geq 0$$

26. Use graphical method by L.P.P

Minimize $z= 3x+2y$

Sub. To the constraints, $5X + y \geq 10$

$$X + y \geq 6$$

$$X + 4y \geq 12$$

$$X, y \geq 0.$$

27. Explain detail the components of a research report presentation in IMR & D format.

28. Report Writing is more an art that wings upon practice and experience". Discuss.

29. Explain the significance of a research report and narrate the various steps involved in writing such a report.
