STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI 600 086
(For candidates admitted during the academic year 2008 – 09)

SUBJECT CODE: PR/PC/RS34

M. A. DEGREE EXAMINATION, NOVEMBER 2009
PUBLIC RELATIONS
THIRD SEMESTER

COURSE : CORE
PAPER : RESEARCH FOR PUBLIC RELATIONS
TIME : 3 HOURS **MAX. MARKS: 100**

SECTION – A

Answer all questions in not less than 50 words: **(10 x 2 = 20)**

1. Define Research design.
2. What is a case study?
3. What are the essential characteristics of a good Questionnaire?
4. Describe and differentiate median and mode.
5. What is sampling error?
6. Define standard deviation.
7. Mention the various graphical representations of a distribution.
8. What are the limits for correlation?
9. Write the equations of regression lines.
10. Define null hypotheses and alternative hypotheses.

SECTION – B

Answer any five questions in not less than 250 words: **(5 x 8 = 40)**

11. What are Primary and secondary data? Distinguish between them.
12. Represent a percentage bar diagram for the following data on investment for the First and Second Five-Year Plans:

Investments in the Public sector

Items	First Five Year Plan	Second Five Year Plan
Agriculture	357	768
Irrigation	492	990
Industry	261	909
Transport	654	1485
Social Service	306	945
Miscellaneous	90	300

13. What are the various types of sampling techniques and write a brief note on 3 of them.

14. 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

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15. An I.Q. test was administered to 5 persons before and after they are trained . The results are given below:

Candidates	I	II	III	IV	V
I.Q. before training	110	120	123	132	125
I.Q. after training	120	118	125	136	121

Test whether there is any change in I.Q. after the training programme.
(Tabulated value is 4.6)

16. 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.

17. Sample of sales in similar shops in two towns are taken for a new product with the following results:

Town	Mean sales	variance	Size of sample
A	57	5.3	5
B	61	4.8	7

Is there any evidence of difference in sales in the two towns? Use 5% level of significance for testing this difference between the means of two samples.
(Students –t table value for 10 degrees of freedom at 5% level of significance is 2.228)

18 . Define scatter diagram and draw 4 different types of scatter diagrams for perfect correlation, perfect negative correlation, non-linear correlation and no correlation.

SECTION – C

Answer any two questions in not less than 1000 words: (2 x 20 = 40)

19a. Two researcher workers classified some people in income groups on the basis of sampling studies . Their results are as follows

Investigators	Income groups			Total
	Poor	Middle	Rich	
A	160	30	10	200
B	140	120	40	300
Total	300	150	50	500

Show that the sampling technique of at least one research worker is defective.
(Tabulated Chi-square value for 2 degree of freedom is 5.991)

b. State a few properties of a normal distribution.

20.Find the mean , Median, and mode for the following and verify using the empirical relation.

Class	1-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100
Freq	3	7	13	17	12	10	8	8	6	6

21a. Calculate Spearman's coefficient of correlation marks assigned to ten students by judges x and Y in a certain competitive test :

S.No	1	2	3	4	5	6	7	8	9	10
Judge X	52	53	42	60	45	41	37	38	26	27
Judge Y	65	68	43	38	77	48	35	30	25	50

b. The weekly wages of 100 workers in a factory are:

Weekly wages	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65
No of workers	4	5	12	23	31	10	8	5	2

Draw both less than and greater than ogives and write the answer of the median.

22 a. Two random samples drawn from two normal populations are:

Sample1	20	16	26	27	23	22	18	24	25	19		
Sample2	27	33	42	35	32	34	38	28	41	43	30	37

Test using variance ratio test at 5% and 1% level of significance whether the two populations have the same ratio.(Table value is 3.11 at 5% level of significance and 5.2 at 1% level of significance)

b. 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

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