12005

M.B.A. DEGREE EXAMINATION, FEBRUARY 2015.

FIRST SEMESTER

Paper V — STATISTICS AND RESEARCH METHODOLOGY

Time : Three hours Maximum : 70 marks

(No additional sheet will be supplied)

PART A — (5 × 3 = 15 marks)

Answer ALL questions.

Each question carries 3 marks.

Each answer should not exceed 1 page.

1. Write a note on snow ball sampling with suitable example.

2. Calculate the most suitable from the following :

Size of the item :	below 50	50-100	100-150	150-200	200 and above
Frequency :	15	20	36	40	10

3. Bring out the qualities of a good hypothesis.

4. The coefficient of rank correlation of the marks obtained by 10 students in Statistics and Accountancy was found to be 0.2. It was later discovered that the difference in ranks in two subjects obtained by one of the students was wrongly taken as 9 instead of 7. Find the correct value of the coefficient of rank correlation.

5. Write a note on exploratory research.

PART B — (4 × 10 = 40 marks)

Answer ALL questions.

Each question carries 10 marks.

Each answer should not exceed 5 pages.

6. What is correlation? Do you think that correlation always signifies a cause and effect relationship between two variables? Explain.

Or

7. Bring out the procedure for testing hypothesis.

8. Explain the importance of research in business with two examples.

Or

9. A test in Mathematics was given to students of two Higher Secondary Schools (HSS) in Bangalore. The sample size in each case was 100, that is $n_1 = 100$, $n_2 = 100$. The break-up of students on the basis of grades obtained by them is shown below :

Grade		Sample		Total
		HSS1	HSS2	
P_1	A	15	10	25
P_2	B	25	15	40
P_3	C	35	40	75
P_4	D	25	35	60
		$n_1 = 100$	$n_2 = 100$	200

The question is: is there any difference between the grades of the two higher secondary schools?

10. Distinguish between qualitative research and quantitative research with one example each.

Or

11. Discuss the techniques of sampling with an example for each.

12. Discuss the various contents of research methodology in preparing a synopsis.

Or

13. Discuss in detail the various advantages and disadvantages of secondary and primary data.

PART C — (1 × 15 = 15 marks)

Case Study.

(Compulsory)

14. A Company has appointed four salesmen, P, Q, R, and S, and observed their sales in three seasons — summer, winter, and Monsoon. The figures are given in the following table (Rs. In lakhs) :

Seasons	Salesmen				Season Totals
	P	Q	R	S	
Summer	36	36	21	35	128
Winter	28	29	31	32	120
Monsoon	26	28	29	29	112
Salesmen Total	90	93	81	96	360

Using 5 percent level of significance, perform an analysis of variance on the above data and interpret the results. Are there any similarities between salesmen in respect of sales and seasons.