2 PGDE COM 3

2014

(December)

COMMERCE

Paper : 203

(Research Methodology and Statistical Analysis)

Full Marks : 80

Time : Three hours

The figures in the margin indicate full marks for the questions.

1. (a) What do you mean by Business research ? Explain its significance in modern times.

16

Or

(b) Enumerate the different methods of collecting data. Which one is the most suitable for conducting enquiry regarding family welfare programme in India ? Explain its merits & demerits. 16

2. (a) From the following data obtain the two regression equations :

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

16

Or

(b) What does a measure of central tendency indicate ? Discuss the important measures of central tendency pointing out the situation when one measure is considered relatively appropriate in comparison to other measures.

16

3. (a) Explain the following with examples :

2×8=16

(i) Mutually Exclusive Events

(ii) Independent and Dependent Events

(iii) Equally Likely Events

(iv) Classical Approach

(v) Relative Approach

(vi) Subjective Approach

(vii) Addition Theorem

(viii) Multiplication Theorem.

Or

(b) Eight coins are tossed at a time 256 times. Number of heads observed at each throw is recorded and the results are given below. Find the expected frequencies. What are theoretical values of mean and s.d. ?   16

No. of heads at a throw	Frequency
0	2
1	6
2	30
3	52
4	67
5	56
6	32
7	10
8	1

4. (a) The Medical Administration Test taken by two groups of boys and girls gave the following information :

	Mean score	SD	Number
Girls :	75	10	100
Boys :	70	12	200

On the basis of the above information, would you conclude that mean scores of boys and girls are statistically significant ? [Tabulated value of Z at 1% level of significance is 2·58]   16

Or

(b) Describe the five steps of hypothesis testing and write a note on point estimation and interval estimation. 10+6=16

5. (a) Describe the aims and importance of Report writing. 5+11=16

Or

(b) A firm selling four products is interested in finding out whether the sales are distributed similarly among four general classes of 400 sales records provides the following information : 16

Customer's group	Products 1	2	3	4	Total
Partners	25	10	30	15	80
Factory workers	32	20	10	28	90
Businessmen	35	48	25	40	148
Professionals	28	22	15	17	82
Total	120	100	80	100	400

Apply Chi-square test. What conclusion can you draw from the test result.

[Tabulated value of $\chi^2_{0.05} = 16 \cdot 919$ for $q = 9$]