

III Semester B.Com. Degree Examination, November/December 2016  
COMMERCE (Old)  
Paper – 3.5 : Quantitative Techniques – I

Time : 3 Hours

Max. Marks : 80

*Instruction : Mathematical logarithmic and graphs are supplied on request.*

SECTION – A

Answer **any ten** of the following :

(10×2 = 20)

1. Define Statistics.
2. What is primary data ?
3. Mention types of classification.
4. What do you mean by tabulation ?
5. What is simple bar diagram ?
6. State two differences between diagrams and graphs.
7. Define Arithmetic Mean.
8. Mention two merits of Median.
9. What is Range ?
10. What do you mean by quartile deviation ?
11. Name the types of correlation.
12. Write the two equations of regression lines.

SECTION – B

Answer **any three** of the following :

(3×5 = 15)

13. What is primary data ? Explain its merits and demerits.

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14. In a sample study about coffee habits in two towns

**Town A** : Females were 40%, coffee drinkers were 46% and male non coffee drinkers were 20%.

**Town B** : Male were 55% male non coffee drinkers were 30% and female coffee drinkers were 15%.

Represent the above data in a systematic table

15. Draw a rectangular diagram to represent the following data :

Items of expenditure	Family A	Family B
Food	1600	1200
Clothing	800	320
Rent	600	480
Light & Fuel	200	160
Miscellaneous	800	240
<b>Total</b>	<b>4000</b>	<b>2400</b>

16. The mean of the following series is 30.5 find the missing variable :

<b>Marks :</b>	10	20	?	40	50
<b>No. of students :</b>	8	10	20	15	7

17. Sixteen industries of the State have been ranked according to profit earned 2011 – 2012 and the working capital for that year. Calculate the rank correlation co-efficient.

<b>Industry :</b>	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
<b>Profit :</b>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
<b>Working Capital :</b>	13	16	14	15	10	12	4	11	5	9	8	3	1	6	7	2

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**SECTION – C**

Answer any three of the following :

**(3×15=45)**

18. Explain the uses, features, importance and limitations of statistics.

19. Prepare Histogram, polygon and frequency curve for the following data :

<b>Class :</b>	0 – 10	10 – 20	20 – 30	30 – 40	40 – 50	50 – 60	60 – 70
<b>Frequency :</b>	6	8	10	15	13	8	5

20. Find Mean, Median and Mode for the following data :

<b>Marks :</b>	0 – 10	10 – 20	20 – 30	30 – 40	40 – 50	50 – 60	60 – 70
<b>No. of students :</b>	10	20	30	40	30	20	10

21. Compute mean deviation from mean, median and mode and their co-efficient.

<b>Class :</b>	10 – 20	20 – 30	30 – 40	40 – 50	50 – 60	60 – 70	70 – 80
<b>Frequency :</b>	5	10	13	24	22	27	20

22. Calculate the co-efficient of correlation between the age of husband and wives from the data given below and comment on the result

<b>Age of husbands</b>	<b>Age of wives</b>					<b>Total</b>
	10 – 20	20 – 30	30 – 40	40 – 50	50 – 60	
10 – 20	6	3				<b>09</b>
20 – 30	3	16	10			<b>29</b>
30 – 40		10	15	7		<b>32</b>
40 – 50			07	10	4	<b>21</b>
50 – 60				4	5	<b>09</b>
<b>Total :</b>	<b>09</b>	<b>29</b>	<b>32</b>	<b>21</b>	<b>09</b>	<b>100</b>

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