



**III Semester B.Com. Degree Examination, November/December 2017**  
**COMMERCE**  
**(New)**  
**Paper – 3.6 : Quantitative Techniques – I (General)**

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 classification ?
3. What is bi-variate frequency distribution ?
4. State any two differences between graphs and diagrams.
5. Mention the properties of median.
6. Define mode.
7. What is coefficient of range ?
8. Define correlation.
9. What is regression ?
10. What are mutually exclusive events ?
11. What is random experiments ?
12. If two coins are simultaneously tossed what is the probability of getting head ?

**P.T.O.**



SECTION – B

Answer **any three** of the following questions :

(3×5=15)

13. Explain the objectives of statistics.

14. Prepare a histogram and a frequency polygon from 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

15. Find out the missing frequency from the following data :

<b>Weekly wages in (Rs.)</b>	<b>No. of workers</b>
0 – 10	12
10 – 20	18
20 – 30	27
30 – 40	?
40 – 50	17
50 – 60	06

16. Calculate lower quartiles (Q1) and upper quartiles (Q3) from the following data :

<b>Marks</b>	<b>No. of Students</b>
0 – 10	5
10 – 20	7
20 – 30	8
30 – 40	12
40 – 50	28
50 – 60	22
60 – 70	10
70 – 80	08

17. A bag contains 15 tickets marked with numbers 1 to 15. One ticket is drawn at random. Find the probability that

- i) The number of it is greater than 10
- ii) The number on it is even
- iii) The number on it is a multiple of 2 or 5.



SECTION – C

Answer **any three** of the following questions :

(3×15=45)

18. Briefly explain the importance of statistics in various fields.

19. Calculate 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

20. Compute the absolute and relative measures of range, coefficient of range, quartile deviation and coefficient of quartile deviation.

<b>Wages</b>	<b>No. of workers</b>
20	12
25	18
30	29
35	37
40	45
45	36
50	25
55	20
60	06
65	09
70	04

21. Seven methods of imparting business education were ranked by the MBA students of two Universities are as follows :

<b>Method of teaching</b>	<b>Ranks by students of University 'A'</b>	<b>Ranks by students of University 'B'</b>
I	2	1
II	1	3
III	5	2
IV	3	4
V	4	7
VI	7	5
VII	6	6

Calculate rank correlation coefficient and comment on its value.

https://www.vskub.com

https://www.vskub.com



22. The following data relate to advertising expenditure (in lakhs of rupees) and their corresponding sales (in crores of rupees)

Advertising Expenditure	Sales
10	14
12	17
15	23
23	25
20	21

**Estimate :**

- i) The sales corresponding to advertising expenditure of Rs. 30,00,000 and
- ii) The advertising expenditure for a sales target of Rs. 35 crores.

Calculate regression equation of X on Y and Y on X from the above information.

---