



US – 529

II Semester B.B.A. Examination, May 2017  
(CBCS) (F+R) (2014 – 15 & Onwards)  
BUSINESS ADMINISTRATION  
Paper – 2.4 : Quantitative Methods for Business – II

Time : 3 Hours

Max. Marks : 70

**Instruction :** Answers should be written in **English** only.

SECTION – A

1. Answer **any five** sub-questions. **Each** sub-question carries **2** marks. **(5×2=10)**
- What is a variable ?
  - What is secondary data ?
  - What is probable error ?
  - What are ogive curves ?
  - State any two uses of index numbers.
  - If  $r = 0.9$ ,  $N = 100$ , find probable error.
  - State any two merits of arithmetic mean.

SECTION – B

Answer **any three** questions. **Each** question carries **6** marks. **(3×6=18)**

- Briefly explain the types of correlation.
- Briefly explain the parts of an ideal statistical table.
- Calculate arithmetic mean from the following data

Height (in cm's)	No. of Students
0 – 10	2
10 – 20	4
20 – 30	6
30 – 40	8
40 – 50	10
50 – 60	12
60 – 70	14

P.T.O.



5. Calculate first and third quartiles.

Income	No. of Persons
250	20
300	14
325	6
350	26
375	9
400	13
600	4

6. Calculate co-efficient of rank correlation.

Marks in Economics	48	60	72	62	56	40	39	52	30
Marks in Accountancy	62	78	65	70	38	54	60	32	31

### SECTION – C

Answer any three questions from the following. Each question carries 14 marks.

(3×14=42)

7. An agent obtained samples of bulbs from two companies. He had tested them for durability and got the following results.

Life (in kms)	Type – A	Type – B
17 – 19	100	30
19 – 21	160	420
21 – 23	260	120
23 – 25	80	30

Which company's bulbs are more uniform life ?

8. Calculate Karl Pearson's co-efficient of correlation between temperature and germination time.

Temperature	:	57	42	40	38	42	45	42	44	40
Germination time	:	10	26	30	41	29	27	27	19	18

Take 47 and 26 as assumed mean.



9. Construct Fisher's ideal index numbers and also show that it satisfy both Time Reversal Test (TRT) and Factor Reversal Test (FRT).

Commodity	Base Year		Current Year	
	Price	Qty.	Price	Qty.
A	2	150	4	120
B	5	10	6	15
C	4	12	5	10
D	2	60	2	50
E	3	20	3.5	30

10. Draw ogive curves from the following data and measure the median value verify it by actual calculations.

Class interval	Frequency
0 - 10	5
10 - 20	11
20 - 30	21
30 - 40	16
40 - 50	10

11. The following table shows the Age (x) and blood pressure (y) of 8 persons :

x	52	63	45	36	72	65	47	25
y	62	53	51	25	79	43	60	33

Obtain the two regression equations. Also find the expected blood pressure of a person who is 49 years old.

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