



**PRESIDENCY UNIVERSITY,
BENGALURU**

SCHOOL OF LAW

MID TERM EXAMINATION

Odd Semester: 2018-19

Date: 22 October 2018

Course Code: BBL 301

Time: 2 Hours

Course Name: Quantitative Techniques

Max Marks: 60

Branch & Sem: BBA./B.Com., LL.B. (Hons.) I Sem

Weightage: 30%

Instructions:

(i) *Calculator is allowed. All parts of the question paper are compulsory*

Part A

Answer **all** the Questions. **Each** question carries **four** marks. (5x4=20)

1. Find the ratio of 5/18 and 6/13
2. The ages of a father and his son are as 6:1. After 14 years they will be 8:3. Find the present ages.
3. Find the Geometric Mean of the following numbers

16, 625, 256, 81

4. Find the Mode of the following data

24, 15, 17, 19, 24, 26, 29, 12, 17, 30, 31, 49, 13, 24, 19, 26

5. Find the Median of the following data

11, 71, 35, 55, 62, 13, 15, 75, 47

Part B

Answer **any four** Questions. **Each** question carries **five** marks. (4x5=20)

6. Divide Rs. 3262 among X, Y and Z such that if Rs.35, Rs. 15 and Rs. 12 are deducted from their respective shares, the remainders are in the ratio of 3:5:8.
7. From the following data find out the average salary of workers

Salary	2200	2500	3000	3700	4500
No. of workers	5	10	15	7	3

8. Find the Harmonic Mean of the following numbers

3, 6, 9, 12, 15

9. Find out the missing frequency from the following distribution for which the Arithmetic Mean is 17

Marks	1 – 5	6 – 10	11 – 15	16 – 20	21 – 25
No. of students	5	15	20	?	10

10. From the following data, find out the Mean, deviation of each data and finally the Variance

8, 9, 15, 23; 5, 11, 19, 10, 12

Part C

Answer **all** the Questions. **Each** Question carries **ten** marks.

(2x10=20)

11. From the following data find out the value of the Median

Marks Obtained	0 – 20	20 – 40	40 – 60	60 – 80	80 – 100
No. of Students	4	6	10	7	3

12. Find the Standard Deviation of the following data

Group	1 – 3	4 – 6	7 – 9	10 – 12	13 – 15
F	9	3	5	2	1



Roll No.

PRESIDENCY UNIVERSITY
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END TERM FINAL EXAMINATION

Odd Semester: 2018-19

Date: 4 January 2019

Course Code: BBL 301

Time: 3 Hours

Course Name: Quantitative Technique

Max Marks: 80

Programme & Sem: BBA./BCom, LL.B. (Hons.) & I Sem

Weightage: 40%

Instructions:

(i) *Calculator is allowed*

Part A

Answer **all** the Questions. **Each** question carries **five** marks. (4Qx5M=20)

1. Calculate the total amount payable after six years with simple interest rate of 6.5% when the principal amount is 3500 Rs.
2. Calculate the total amount payable after four years with compound interest rate of 5% when the principal amount is 2000 Rs.
3. From the following data compute Laspeyre's Index Number for 2018

Items	Price		Quantity	
	2015	2018	2015	2018
P	20	25	10	12
Q	18	32	16	10
R	35	48	8	12
S	28	40	12	10

4. From the above data compute Paasche's Index Number for 2018

Part B

Answer **any four** Questions. **Each** question carries **ten** marks. (4Qx10M=40)

5. Using the data for Problem no.3, compute Fischer's Index Number for 2018

6. Find out Spearman's Rank correlation coefficient from the following data relating to the ranks assigned by two judges on a certain competition.

Candidates:	A	B	C	D	E	F	G	H	I	J
Marks by Judge 1:	26	25	38	37	41	45	60	42	53	57
Marks by Judge 2:	52	25	30	35	48	77	38	43	68	64

7. The probability that a student will pass in the Economic test is $\frac{2}{3}$ and that he will not pass in the English test is $\frac{4}{9}$. If the probability of his passing in at least one of these two tests is $\frac{4}{5}$, find the probability that he will pass in both the tests.
8. A bag contains 15 white and 20 green balls. Two balls are drawn one after another without replacement. Prepare a joint probability table for the experiment.
9. From the following data, determine Pearson Correlation Coefficient

Marks in English:	10	20	30	40	50
Marks in Statistics:	60	70	80	90	100

Part C

Answer **both** the Questions. **Each** question carries **ten** marks. (2Qx10M=20)

10. In a bolt factory, the machines A, B and C manufacture respectively 25%, 35% and 40% of the total. Of their outputs 5, 4, 2 percents respectively are defective bolts. A bolt is drawn at random from the product and is known to be defective. What are the probabilities that it was manufactured by the machines A, B and C?
11. Given below are the data relating to age and blood pressure of some patients

Age:	56	42	36	47	49	42	60	72	63	55
Blood Pressure	147	125	118	128	145	140	155	164	149	150

From the above data

- (a) Find out the regression line of Blood Pressure on Age
- (b) Estimate the blood pressure of a patient whose age is 45 years