ST. JOSEPH'S EVENING COLLEGE (AUTONOMOUS)

IV SEMESTER B.COM EXAMINATIONS APRIL 2018

QUANTITATIVE ANALYSIS AND BUSINESS DECISIONS

Duration: 2.5 Hours   **Max. Marks: 70**

SECTION - A

I)   Answer any EIGHT of the following questions.   (8x2=16)

1. State the components of Time series.
2. State any 2 merits of sampling.
3. What do you mean by correlation?
4. Mention two regression coefficients.
5. Write the meaning of interpolation.
6. Define sampling.
7. What are mutually exclusive events?
8. If bxy=1.2,byx=0.8 obtain ' r '.
9. Expand {y-1}6.
10. Write probable Error formula.
11. What do you mean by Standard Error?
12. Define Time Series.

SECTION - B

II)   Answer any THREE of the following questions.   (3x8=24)

13. Explain in detail the types of sampling.
14. Obtain two regression equations by taking deviations from actual mean of X and Y series

X	4	8	12	16	20
Y	10	14	18	16	22

15.   a. Explain the uses of standard error.
b. it is known that the population S.D. is waiting time for new gas connection in a particular town is 25 days. How Large a sample should be chosen with an allowable error of 6 days of the true average waiting time at 95% confidence level?
Z value at 95% confidence level =1.96

16. Ten competitors in a beauty contest are ranked by 3 judges in the following order:

Judge1	1	5	4	8	9	6	10	7	3	2
Judge2	4	8	7	6	5	9	10	3	2	1
Judge3	6	7	8	1	5	10	9	2	3	4

Use rank correlation of coefficient to discuss which pair of judges have the nearest approach to common tastes in beauty.

17. A}. A card is drawn from a standard pack of 52 cards. What is the probability of choosing

   A KING or A CLUB

   A KING or A QUEEN

   B} A single 6 sided die is rolled .what is the probability of rolling a number greater than 3 or an even number?

SECTION - C

III) **Answer any TWO of the following questions.**   **(2x15=30)**

18. Obtain the straight line trend equation and tabulate each year trend values a And estimate for the value for the year 1976

Year	1968	1969	1970	1971	1972	1973	1974
Sales	100	110	130	125	170	168	191

19. From the following data find out the number of persons living between the age of 35 and 42.

Age in years	20	30	40	50
No. of persons	513	439	346	243

20. Interpolate the production for the year 1965 and 1975 with the help of the following table

Year	1950	1955	1960	1965	1970	1975	1980
Prodn.	100	120	150	?	210	?	320

21. Calculate Karl Pearson's coefficient of correlation between percentage of pass and failure from the following data.

No. of students	800	600	900	700	500	400
No. of passed	480	300	450	560	450	300