PRESIDENCY UNIVERSITY, BENGALURU

SCHOOL OF LAW

Weightage: 40 %   Max Marks:40   Max Time: 3 hrs.   15 May Tuesday 2018

ENDTERM MAKE UP EXAMINATION MAY 2018

Even Semester 2017-18   Course: BBL 301 Quantitative Techniques   II Sem Law

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Instructions:

(i)   Read the question properly and answer accordingly.

(ii)   Question paper consists of 3 parts.

Part A

(5Q x 2 M= 10 Marks)

1. What is a time series? Explain the necessity of analyzing time series data.
2. Write and mention the type's regression line.
3. What are independent events?
4. What is null matrix matrix? Give example
5. What are the uses of Index numbers?

Part B

(3Q x 5 M= 15 Marks)

6. Below are given the figures of production (in thousands tons) of a sugar factory

Year	2000	2001	2002	2003	2004	2005	2006
Production (000 tons)	76	87	95	81	91	96	90

Fit a straight line trend and estimate the production values (in 000 tons) for the year 2007.

7. Calculate the three yearly Moving Average of the following:

	2009	2010	2011	2012	2013	2014	2015	2016
	40	50	60	70	80	90	100	110

8. From the following price and quantity data, compute Paasche's price index number for the following data.

Commodity	2010 (Base Year) Price (Rs per kg)	2010(Base Year) Quantity (Kg)	2015 (Current Year) Price(Rs per kg)	2015 (Current Year Quantity (Kg)
A	4	95	5	120
B	60	118	70	130
C	35	50	40	70

Part C

(3 Q x 5 M= 15 Marks)

9. If A = $\begin{matrix} -2 & 1 \\ 0 & 3 \end{matrix}$

Find $2A^2 - 3A - 7I$

10. A die is tossed and the number of points appearing on the uppermost face is observed. What is the probability of obtaining i.) an even number ii). an odd number iii) less than 3 iv) a six

11. If A= $\begin{matrix} 3 & 2 \\ 1 & 0 \end{matrix}$ B= $\begin{matrix} 4 & 5 & 6 \\ 0 & 1 & 2 \end{matrix}$ C= $\begin{matrix} 1 & -4 & -1 \\ -2 & 5 & -3 \\ 3 & 6 & 5 \end{matrix}$

Show (AB) C= A (BC)