

Shree Narayana College of Commerce

Bachelor of Commerce

Semester – 4

Subject Code – DSC-M-STA-244

Academic Year – 2024-25

Subject – Industrial Statistics

Q-1 (A) From the following data find 3 yearly moving average.

year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sales	75	60	55	59	85	60	67	80	90	96

(B) What is time series and write its uses.

Q-2 (A) Explain the meaning of business forecasting. Discuss its important.

(B) Fit a straight line to the following data. Estimate 1996 production.

Year	1991	1992	1993	1994	1995
Production	20	30	45	25	30

Q-3 (A) Draw mean and R chart from the following information.

Sample No	1	2	3	4	5	6	7	8	9	10
\bar{X}	43	49	37	44	45	37	51	46	43	47
R	2	4	5	7	8	4	6	6	4	6
$A_2 = 0.58, D_4 = 2.11, D_3 = 0$										

(B) Difference between Variable charts and Attribute Charts

Q-4 (A) Which plan is better with respect to Consumer? Answer with proper calculation.

($e^{-1} = 0.3678$)

Plan I (100,20,1)

LTPD = 1 percentage

Plan II (1000, 100,2)

LTPD = 1 percentage

(B) Explain the following terms

(i) AQL, (ii) AOQ, (iii) Consumer Risk, (iv) ASN, (v) ATI