

VidyaVikasMandal's

Shree Damodar College of Commerce & Economics Margao Goa

S.Y.BBA (FS), Semester III, End Semester Examination, October 2015

Duration: 1 Hour

QUANTITATIVE SKILLS

Total Marks: 30

Instructions: 1) Figures to the right indicate maximum marks.

2) All questions are compulsory.

3) In every question Q.A. is compulsory.

4) Non- scientific calculator is allowed.

Q1. A) A population consist of 3 members 1, 4 and 6. Draw all possible sample of size 2 with replacement. Find the sampling distribution of sample mean and find mean of sample mean
(6 marks)

B) X) In a big city 325 men out of 600 men were found to be smokers, does this information supports that the conclusion that majority of men in this city are smokers? At 5% and 1% level of significance.
(4 marks)

OR

Y) In order to test whether a dice is perfect, it is rolled 5 times. Reject null hypothesis iff even number appears more than 4 times. Find Critical region and prob. Of type II error. (4 marks)

Q2. A) In order to test whether a coin is perfect, it is tossed 4 times. Reject null hypothesis iff 0 and 4 tail is obtained. Find Critical region and prob. Of type I error.
(4 marks)

**B) X) Using C control chart, find whether the process is under control or not for the following data:
no. of defects : 2, 3, 4, 0, 5, 6, 7, 4, 3, 2, 4, 5, 6, 4, 0.**
(6 marks)

OR

Y) 20, 25, 19, 17, 14 consist of random sample from a population. Estimate the mean and variance of the population.
(6marks)

Q3. A) Write a short note on R and C chart.
(4 marks)

B) X) Fit a linear trend to the following data by least square method. Also estimate the production for the year 1999 and 2000
(6 marks)

Year	1988	1990	1992	1994	1996	1998
Production	19	18	21	23	27	16

OR

Y) Fit a second degree parabolic curve by least square method to the following data:

Year	1988	1990	1992	1994	1996
Production	19	18	21	23	27

Also estimate the production for the year 1998.
(6 marks)