

Goa Vidyaprasarak Mandal's
GOPAL GOVIND POY RAITURCAR COLLEGE OF COMMERCE AND
ECONOMICS, PONDA-GOA
B.C.A (SEMESTER-IV) EXAMINATION, JULY 2021
DATA ANALYSIS AND STATISTICAL TECHNIQUES

Duration: 2 Hours

Max. Marks: 30

Q 1) Answer ANY 5 of the following questions. (5×2=10 Marks)

(i) Calculate the median for the following data.

C.I	0-10	10-20	20-30	30-40	40-50
Frequency	16	24	35	25	20

(ii) A box contains 2 white, 3 red and 4 green balls of identical size. One ball is drawn at random from the box. Find the probability that it is

- (a) White
 (b) Red or green

(iii) Discuss the merits and demerits of the random sample method.

(iv) Distinguish between positive and negative correlation.

(v) Give an example of Apriori algorithm.

(vi) The number of minutes that each of 10 students spent while talking on a mobile phone was noted. The times recorded to the nearest minute were, 17, 25, 6, 8, 14, 32, 37, 22, 20 and 11 minutes. Find range and standard deviation.

(vii) A coin is tossed six times. What is the probability of getting four or more heads?

(viii) What is Regression? Write the two regression equations.

Q 2) Answer ANY 4 of the following questions. (4×5=20 Marks)

(i) For a Poisson distribution with mean 0.7, find $P(2)$, $P(x \leq 2)$, given $e^{-0.7} = 0.497$.

(ii) From the following distribution of ages of members in a team, find the mean and the standard deviation.

Age in years	0-10	10-20	20-30	30-40	40-50
No. of persons	1	2	3	2	2

(iii) A random sample of 64 students showed the average weight as 50kg with a standard deviation of 2 kg. Find the limits within which the average weight of the students lies mostly.

(iv) Calculate rank correlation coefficient from the following data.

X	52	34	47	65	52	34	52	65
y	65	59	65	68	60	68	57	68

(v) What are major elements of data mining? What are the uses of data mining?

(vi) Compute D_7 and P_{64} for the data given below

X	15-25	25-35	35-45	45-55	55-65
f	10	12	18	5	15