2019

B. Sc.

1st Semester Examination

STATISTICS (Honours)

Paper : C 2-P

(Practical)

(Probability and Probability Distributions-1)

Full Marks : 20 Time : 3 Hours

The figures in the margin indicate full Marks.
Candidates are required to give their answers in their own words as far as practiable.

Answer *all* questions.

1. r balls are placed in n cells. Calculate the probagbility p_m (r, n) that exactly m cells remaine empty. Take n = 5, r = 5. Obtain p_0 (5, 5), p_1 (5, 5), p_2 (5, 5), p_3 (5, 5), p_4 (5, 5), p_5 (5, 5).

2. Seven coins are tossed and number of heads noted. The experiment is repeated 128 times and following

distribution is obtained.

No. of head	0	1	2	3	4	5	6	7	Total
Frequencies	7	6	19	35	30	23	7	1	128

Fit a bionomial distribution assuming.

(i) The coin is unbiased.

(ii) The nature of coins is not known.

3. 200 students of 1st year B.Sc. class in Haldia Government College is divided into 20 batches of each of size 10 rupees the clas consists of 40 residents and 160 non-resident students and let R denote the number of resident students in 1st batch. Use binomial approximation to find probability that $R \geq 3$.

4. Viva 3

5. Practical Note 2