U.G. 2nd Semester Examination - 2021

STATISTICS

[HONOURS]

Course Code : STAT-H-CC-P-4

(Probability and Probability Distributions-II-Lab)

[PRACTICAL]

Full Marks : 12.5 (10+2.5) Time : 2 Hours

The figures in the right-hand margin indicate marks.

Candidates are required to give their answers in their own words as far as practicable.

Notations and symbols have their usual meaning.

1. Suppose X follows Poisson distribution and $P(X=2)=P(X=3)+P(X=4)$. Obtain $E(X)$, $Var(X)$, μ_3 and $P(X=1)$. 3

2. A person arrives at a bus-stop at 5.00 pm. The bus will be available at some time uniformly distributed over 5.00 pm to 5.20 pm. Find the probability that the person will have to wait

    i) for more than 15 minutes,

    ii) no longer than 10 minutes.

    If the bus does not arrive till 5.10 pm, find the probability that he will still have to wait for at least 5 minutes more. 2

3. Practical note book. $2\frac{1}{2}$

4. Viva voce. $2\frac{1}{2}$

[Internal Assessment : 2.5]

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