SEMESTER II
P.R. GOVERNMENT COLLEGE (AUTONOMOUS), KAKINADA
SEM END EXAMINATIONS MAY –2024
I B.SC. STAT HONS SUBJECT: RANDOM VARIABLES & MATHEMATICAL EXPECTATION

| DATE & SESSION | 07.06.2024 FN | REG NO | 232STA03 | MAX MARKS | 50 |

3x10=30M

Answer any THREE of the following. Choosing at least one from each part

SECTION - A PART- 1

1 Define distribution function in uni variate random variable and explain properties.

2 A random variable x has the following probability function

| x ; | -2 | -1 | 0 | 1 | 2 | 3 |
| P(x) : | 0.1 | k | 0.2 | 2k | 0.3 | k |

Find k and mean.

3 State and prove multiplication theorem of expectation for n events.

PART- II

4 State and prove chebyshev in equality.

5 Explain about convergency in distribution and probability.

6 Describe about applications of central limit theorem.

SECTION — B

4x5=20M

Answer any FOUR of the following:

7 Explain about random variables and its types.

8 Explain about bi variate discrete random variable.

9 Describe about continuous random variable.

10 State and prove Cauchy - schwartz in equalities.

11 Define characteristic function and write its properties.

12 Explain about relation between CLT and WLLN.

13 Explain about statement of Lyapunov's CLT.

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P.R. GOVERNMENT COLLEGE (AUTONOMOUS), KAKINADA
SEM END EXAMINATIONS MAY -2024
I B.SC. STAT HONS SUBJECT: DESCRIPTIVE STATISTICS

DATE & SESSION	05.06.2024 FN	REG NO	2 3 2 5 T A 03	MAX MARKS	50

Answer any Three of the following Choosing atleast one from each part.   3 x10=30M

SECTION-A

PART-I

1.	Write about Primary and secondary data	BT3	PO3	CO`
2.	Explain about diagram representation of data	BT3	PO4	CO3
3.	Calculate mean to the following data C.I : 10-20 20-30 30-40 40-50 50-60 F : 5 8 25 22 10	BT2	PO3	CO3

PART-II

4.	Calculate mean deviation about median to the following data C.I : 10-20 20-30 30-40 40-50 50-60 F : 5 10 15 10 5	BT2	PO2	CO3
5.	Explain about Skewness and its measures	BT4	PO5	CO4
3.	State and Prove Boole's inequalities	BT3	PO3	CO3

SECTION-II

Answer any FOUR of the following   4 x 5 = 20M

7.	Describe the importance of statistics	BT3	PO3	CO1
8.	Explain about types of frequency distribution	BT2	PO2	CO3