**Programme Name: B. Sc. (Course: Statistics): - 2023 – 24.**

| **Programme Outcomes: After completion of the Programme, the students will be able to:** | |
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| PO 1 | Understand how to use statistical knowledge for analysis. |
| PO 2 | Understand the concept of probability and the statistical distributions and applications in various fields. |
| PO 3 | Understand the principles, concepts and recent developments in the Statistics. |
| PO 4 | Understand how to design of experiment and survey sampling are used in real life. |
| PO 5 | Learn the various concepts in Statistics. |
| **Programme Specific Outcomes: After completion of the Programme, the students will be able to:** | |
| PSO 1 | Be a Business analyst, Research Officer, Data Analyst or Data Investigator. |
| PSO 2 | Work in government sector and do research on Consumer prices, Population trend, Economy etc. |
| PSO 3 | Do research work in various fields. |
| **Course Outcomes: After completion of the course, the student will be able to:** | |
| **B.Sc. Part-I Sem.: I Paper-I** (DESCRIPTIVE STATISTICS I) | CO.1 Analyze data and types of data, various data presenting methods and population, sample and various methods of sampling.<br>CO.2 Compute various measures of central tendencies, dispersion, moments, skewness, kurtosis and to interpret them. |
| **B.Sc. Part -I Sem.: I Paper-II (ELEMENTARY PROBABILITY THEORY)** | CO.1 Distinguish between random and non-random experiments.<br>CO.2 Find the probabilities of various events.<br>CO.3 Understand concept of conditional probability and independence of events.<br>CO.4 Understand the concept of univariate random variable and its probability distribution.<br>CO.5 Understand the concept of mathematical expectation of univariate random variable. |
| **B.Sc. Part-I Sem.: II Paper-III (DESCRIPTIVE STATISTICS – II)** | CO.1Compute correlation coefficient and interpret its value.<br>CO.2 Compute regression coefficient, interpret its value and use in regression analysis.<br>CO.3 Understand the concept of independence and association between two attributes.<br>CO.4 Study the vital statistics and concepts related with mortality fertility and growth rates. |
| **B.Sc. Part–I Sem.: II Paper IV (DISCRETE PROBABILITY DISTRIBUTIONS)** | CO.1 Distinguish between discrete variables.<br>CO.2 Know some standard discrete probability distributions with real life situations.<br>CO.3 understand concept of bivariate distributions and computation of related probabilities and mathematical expectation of bivariate discrete random variable. |
| **B.Sc. Part –II Sem.: III Paper V (Probability Distributions–I)** | CO.1understand concept of discrete and continuous probability distributions with real life situations.<br>CO.2Find the various measures of random variable and probabilities using its probability distribution. |

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| | CO.3 understand the concept of transformation of univariate and bivariate continuous random variable. |
| **B.Sc. Part -II Sem.: III Paper-VI (Statistical Methods-I)** | CO.1 understand the concept of Multiple Linear Regression, Multiple Correlations and Partial Correlation.<br>CO.2 understand the need, construction and utility of various index numbers.<br>CO.3 understand the concepts related to national and different methods of estimation of national income. |
| **B.Sc. Part -II Sem.: IV Paper-VII (Probability Distributions-II)** | CO.1 Know some standard continuous probability distributions with real life situations.<br>CO.2 Learn and understand the relations among the different distributions.<br>CO.3 understand the Chi-Square, t and F distributions with their applications and interrelations. |
| **B.Sc. Part –II Sem.: IV Paper VIII (Statistical Methods-II)** | CO.1 Know the concept and uses of time series.<br>CO.2 understand meaning, purpose and uses of SQC, construction of various control charts for variables and attributes.<br>CO.3 Apply small and large sample tests in various situations. |