Ganpat University
॥ विद्यया समाजोत्कर्षः ॥

Faculty of Computer Applications

Programme	B.Sc. IT Honours (Artificial Intelligence & Machine Learning)	**Branch**	Computer Applications
Semester	II	**Version**	1.0.0.0
Effective from Academic Year	2026-27	**Effective for the batch Admitted in**	June 2026
Subject code	U82C4BS	**Subject Name**	BASIC OF STATISTICS

Teaching scheme						**Examination scheme(Marks)**			
(Per week)	**Lecture (DT)**		**Practical (Lab.)**		**Total**		**CCE**	**SEE**	**Total**
	L	TU	P	TW					
Credit	4	-	-	-	4	Theory	50	50	100
Hours	4	-	-	-	4	Practical			

Objective:

To learn the fundamentals of Statistics

Pre-requisites:

Basic knowledge of Mathematics

Learning Outcome:

Name of CO	Description
CO1	Analyze statistical data using measures of central tendency
CO2	Analyze statistical data using measures of Dispersion
CO3	Illustrate Concepts of Correlation
CO4	Learn basic concepts of regression
CO5	Illustrate and use the terminology of probability

Mapping of CO and PO:

Cos	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	1	1	1	0	0	2	1	1	1	1
CO2	3	2	1	1	1	0	0	2	1	1	1	1
CO3	3	2	1	1	1	0	0	1	1	1	1	1
CO4	3	2	1	1	1	0	0	1	1	1	1	1
CO5	3	2	1	1	1	0	0	1	1	1	1	1

Content:

Unit	Content	Hrs.
1	**Method of Central Tendency:** Introduction, Arithmetic Mean, Simple and weighted for raw data, Discrete frequency distribution, Continuous frequency distribution, Properties of A.M., Merits & De merits of A.M., Median for raw data, Discrete frequency distribution, Continuous frequency distribution, Merits and demerits of Median, Mode for raw data, D.f.s., c.f.s., Merits & demerits of mode, Geometric Mean and Harmonic Mean for raw data, D.f.s., c.f.s., Merits & demerits	12
2	**Measures of Dispersion:** Introduction, Range, coefficient of range, Quartiles, Quartiles deviations, coefficient of quartile deviations, Mean deviation and coefficient of mean deviation, S.D and variance for all types of	12

	frequency distribution, Coefficient of Dispersion, Coefficient of variation	
3	**Correlation:** Definition of Correlation, Types of Correlation, Scatter Diagram Method, Karl Person's Correlation Coefficients, Correlation Coefficients for Bivariate frequency distribution, Probable error for Correlation	12
4	**Regression:** Definition of Regression, Regression lines, Regression Coefficients, Properties of regression Coefficients, Fitting of regression lines and estimation for Bivariate frequency distribution	12
5	**Probability:** Sample spaces, Event, Type of events, Definition of probability, Axioms of probability, Addition theorem, Multiplication theorem, Conditional probability, Baye's Theorem-Simple problems	12

Practical Content:	
Reference Books:	
1	Statistical Methods by S. P. Gupta-Sultan Chand Publication
2	Fundamental of Applied Statistics by S.C. Gupta & V.K. Kapoor-COMDEX
3	Business Statistics by R. S. Bhardwarj, Excel Books, New Delhi
Web Reference:	
1	https://www.tutorialspoint.com/statistics/index.htm
MOOC/Certificate Course:	
1	https://www.coursera.org/learn/basic-statistics
2	https://www.edx.org/course/fundamentals-of-statistics
Question Paper Scheme:	
	End Semester Examination Duration: (2 Hours Theory Examination) **Note for Examiner: -** Q-1 Any Five out of Seven (25 Marks) Q-2 Any Two out of Three (06 Marks) Q-3 Mandatory question (05 Marks) Q-4 Any Two out of Three (08 Marks) Q-5 Any Two out of Three(06 Marks) *The question paper must comprehensively address all Course Outcomes (COs), align with Bloom's Taxonomy levels, and ensure complete syllabus coverage.