1.Course Title : **Distribution theory**

2.Program : **M.Sc** **Specialisation : Statistics**

Sr.No	Topic Outcomes	Bloom's Level	student activity based on this outcome.	Question to assess this outcome.
1	**Basics of Distribution Theory**	Apply	Apply various results to find the distributions and properties for various functions of random variables	Find characteristic function of the distributions. Find the distribution of statistics
2	**Discrete Distribution**	Evaluate, Apply	Properties of Discrete distributions.	What are the situations where you will apply negative binomial, hyper geometric, geometric distributions and how?
3	**Continuous Distribution**	Evaluate, Apply	Properties of continuous distributions	Find characteristic function of Cauchy distribution. What is importance of normal distribution?
4	**Sampling Distribution**	Evaluate, Apply	Formation and Properties of sampling distributions	How students T distribution is formed? What is relation between t , F and Chi square distribution?
5	**Order Statistics and Inequalities**	Evaluate, Apply	Properties of order statistics	Find joint distribution of first and nth order statistics. Applications of order statistic

1.Course Title : **Statistical Analysis of Clinical Trials**

2.Program : **M.Sc** **Specialisation : Statistics**

Sr.No	Topic Outcomes	Bloom's Level	Student activity for this outcome.	Question to assess this outcome.
1	**Need and Ethics of Clinical Trials, Pharmacokinetic parameters**	Evaluate, Apply	Different phases of clinical Trials. Importance and need of clinical trials. Estimation of pharmacokinetic parameters	What is the role of Statistics in clinical trials? Estimate the pharmacokinetic parameters for clinical data.
2	**Designs of Clinical Trials**	Evaluate, Apply, Analyse	Analysis of Cross over designs and parallel design.	Distinguish between Cross over designs and parallel design. Analyse the data given; using crossover design.
3	Bio Equivalence of clinical trials	Evaluate, Apply, Analyse	Estimation of carry over effects, direct drug effect and period effect.	Test bio equivalence of two drugs using Schuirman's test
4	Analysis of designs	Evaluate, Apply	Complete analysis of repeated measures design and nonparametric methods	What is the need of nonparametric methods and repeated measures design in clinical trials
5	Power and sample size determination	Evaluate, Apply	Sample size determination with power and precision analysis	Determine the sample size for testing equality of means

1. Course Title : Distribution Theory

2. Program : M.Sc. **Discipline : Science**

Sr. No	Course Outcomes	Check 1	Check 2	Check 3	Check 4
1	Basics of Distribution Theory	X		X	X
2	Discrete Distribution	X		X	X
3	Continuous Distribution	X		X	X
4	Sampling Distribution	X		X	X
5	Order Statistics and Inequalities	X		X	X
6	Basics of Distribution Theory	X		X	X
7	Discrete Distribution	X		X	X

Note: Mark 'X' if the Course Outcome passes the check

Check1: Are they written using action verbs to specify definite, observable behaviors?
Check2: Does the language describe students' rather than teachers' behavior?
Check3: Do the outcomes clearly describe and define the expected abilities, knowledge, values, and attitude of students of the course?
Check4: Is it possible to collect accurate and reliable data for each outcome?

1. Course Title : Statistical analysis of clinical Trials

2. Program : M.Sc. Discipline : Science

Sr. No	Course Outcomes	Check 1	Check 2	Check 3	Check 4
1	Need and Ethics of Clinical Trials, Pharmacokinetic parameters	**X**		**X**	**X**
2	Designs of Clinical Trials	**X**		**X**	**X**
3	Bio Equivalence of clinical trials	**X**		**X**	**X**
4	Analysis of designs	**X**		**X**	**X**
5	Power and sample size determination	**X**		**X**	**X**

Note: Mark 'X' if the Course Outcome passes the check

Check1: Are they written using action verbs to specify definite, observable behaviors?
Check2: Does the language describe students' rather than teachers' behavior?
Check3: Do the outcomes clearly describe and define the expected abilities, knowledge, values, and attitude of students of the course?
Check4: Is it possible to collect accurate and reliable data for each outcome?

Write the Course Articulation Matrix for a course of your choice

1.Course Title : Distribution Theory

2.Program : M.Sc. Specialisation : Statistics

Part C:

Sr. No	Course Outcomes (CO)	PO1
1	Fundamental concept of Statistics	x
2	Presentaion of data	x
3	Data Analysis	x
4	Interpretation Of output	x
5	Applications of various Statistical tools and techniques manually and thorough Softwares	x
6	Own consultancy	
7	Jobs in various govt. And private sectors.	x

(Mark cells of rows PO1 – PO7 with 'X', if the CO addresses the concerned PO)

Write the Course Articulation Matrix for a course of your choice

1.Course Title : Statistical Analysis of Clinical Trials

2.Program : M.Sc. Specialisation : Statistics

Part C:

Sr. No	Course Outcomes (CO)	PO1
1	Fundamental concept of Statistics	x
2	Presentaion of data	x
3	Data Analysis	x
4	Interpretation Of output	x
5	Applications of various Statistical tools and techniques manually and thorough Softwares	x
6	Own consultancy	x
7	Jobs in various govt. And private sectors.	x

(Mark cells of rows PO1 – PO7 with 'X', if the CO addresses the concerned PO)