

**COURSE TITLE : STATISTICS**  
**COURSE CODE : 2144**  
**COURSE CATEGORY : B**  
**PERIODS/WEEK : 5**  
**PERIODS/SEMESTER: 75**  
**CREDITS : 5**

**TIME SCHEDULE**

<b>MODULE</b>	<b>TOPICS</b>	<b>PERIODS</b>
1	Statistics classification and tabulation	20
2	Measures of central tendency	20
3	Graphical representation and correlation	20
4	Index numbers	15
<b>TOTAL</b>		<b>75</b>

**COURSE GENERAL OUTCOME**

<b>SL.NO</b>	<b>Sub</b>	<b>On completion of this course the student will be able:</b>
<b>1</b>	1	To understand basic concepts of statistics
	2	To understand classification and tabulation
<b>2</b>	1	To understand measures of central value
	2	To understand of dispersion
<b>3</b>	1	To understand graphical representation
	2	To understand correlation
<b>4</b>	1	To understand index numbers
	2	To understand cost of living index

**SPECIFIC OUTCOME**

**MODULE 1**

**1.1.0. Understand the Definition, Meaning and Scope of Statistics**

- 1.1.1 Define statistics
- 1.1.2 State the functions of statistics
- 1.1.3 List the importance of statistics
- 1.1.4 Explain the objects of statistics
- 1.1.5 State the limitations of statistics
- 1.1.6 State the different types of data
- 1.1.7 Explain the methods of collecting data
- 1.1.8 Distinguish between primary data and secondary data.

**1.2.0 Understand the meaning and importance of classification and tabulation**

- 1.2.1 Define classification
- 1.2.2 List the various objects of classification
- 1.2.3 Explain the various kinds of classification
- 1.2.4 Explain the requisites of a good classification
- 1.2.5 Explain statistical series
- 1.2.6 Prepare individual, discrete and continuous series
- 1.2.7 Define tabulation
- 1.2.8 Explain the rules of tabulation

- 1.2.9 Describe briefly the types of tabulation
- 1.2.10 Explain the objects of tabulation

## **MODULE 2**

### **2.1.0 Understand the meaning and importance of measures of central value**

- 2.1.1 State the meaning and importance of various measures of central value
- 2.1.2 Define mean, median and mode
- 2.1.3 State the requisites of good average
- 2.1.4 List out the advantages and disadvantages of various measures of central value
- 2.1.5 Solve problems of Mean, Median and Mode
- 2.1.6 Solve problems on combined mean and weighted mean

### **2.2.0 Understand different measures of dispersion**

- 2.2.1 List out the various measures of dispersion
- 2.2.2 State the meaning and importance of various measures
- 2.2.3 Explain mean deviation
- 2.2.4 Solve problems on mean deviation
- 2.2.5 Explain standard deviation

## **MODULE 3**

### **3.1.0 Understand the meaning and analysis of graphical representation**

- 3.1.1 Solve problems under graphical representation
- 3.2.0 Understand the meaning and measurement of correlation
- 3.2.1 State the meaning and importance of correlation
- 3.2.2 Explain the types of correlation
- 3.2.3 Explain the measurement of correlation
- 3.2.4 Solve problems on correlation—simple and rank

## **MODULE 4**

### **4.1.0 Understand index numbers**

- 4.1.1 Describe the uses of index numbers
- 4.1.2 State the types of index numbers
- 4.1.3 State the purpose of index numbers
- 4.1.4 State the various methods of construction of index numbers
- 4.1.5 Solve problems using various methods
- 4.1.6 Solve problems under price relative method
- 4.1.7 Understand time reversal and factor reversal test
- 4.1.8 Solve problem by time reversal test and factor reversal test
- 4.1.9 State cost of living index
- 4.1.10 Solve problems under family budget method and cost of living index

## **CONTENTS DETAILS**

## **MODULE 1**

Statistics- definition- meaning-scope-functions-important-object-limitations-types of data-methods of collecting data-difference between primary data and secondary data- Tabulation-

meaning-classification-objects-types-requisites of a good classification-statistical series-prepare individual, discrete and continues series

## **MODULE 2**

Measures of central value-importance-meaning-mean-median-mode-requisites of good average-advantages and disadvantages of measures of central value-problems – mean median and mode-problems companied mean and weighted mean-Difference measures of dispersion-meaning-importance-mean deviation-problems-standard deviations

## **MODULE 3**

Graphical representation - histogram-frequency polygon-frequency curve-ogive-cumulative frequency curve-more than ogive-less than ogive-correlation-meaning-measurement-importance-types-problems on correlation.

## **MODULE 4**

Index numbers-uses-types-purpose-methods of construction of index numbers-problems relating index numbers-price relative method-time reversal and factor reversal test-cost of living index-problems under family budget method and cost of living index.

## **REFERENCES**

1. Statistical Methods : S C Gupta,Sulthan Chand Delhi
2. Fundamentals of Statistics : S P Gupta, Sultha Chand Delhi ,
3. Fundamentals of Statistics : D N Elhance, ,Sulthan Chand Delhi
4. A full course in Statistics : L R Potti Yamuna Publications,Thiruvananthapuram
5. Statistics for B.Com : L R Potti Yamuna Publications,Thiruvananthapuram
6. Statistics : R S N Pillai and V.Bhagavathy,Sulthan Chand Delhi