

# Government Degree College (Autonomous), Baramulla

**SEMESTER- 8<sup>th</sup>**

**MAJOR-II**

**Subject: Food Science and Technology**

**Title: Biostatistics & Entrepreneurship**

Code: FSTC2822M

CREDITS: (4 + 2) THEORY: 04 PRACTICAL: 02

CONTACT HOURS: 64T + 64L

## **Part-1 THEORY (4 CREDITS)**

### **Course Objectives:**

*To introduce the students to fundamental concepts of Statistics.*

*To acquaint the students with various aspects of entrepreneurship and project designing.*

### **Learning outcomes:**

*On completion of the course, the students shall be able to:*

*Collect and analyze data using statistical measures and apply the same for designing experiments.*

*Design their own projects taking financial and other aspects into consideration.*

### **UNIT- 1: Fundamentals of descriptive Statistics (16 HOURS)**

Collection of data: Introduction, primary and secondary data.

Measures of central tendency: Mean, Mode and Median.

Measures of Dispersion: Introduction, Range, Mean Deviation, Quartile deviation.

Standard deviation and coefficient of variation.

### **UNIT- 2: Experimental design and analytical relationships (16 HOURS)**

Design of experiments: Randomized Block Design (RBD) and Complete Random Design (CRD).

Correlation Analysis: Concept and significance.

Regression: Concept and significance.

Precision and Accuracy.

### **UNIT- 3: Entrepreneurship- skills, motivation and challenges (16 HOURS)**

Entrepreneurship–Concept and development.

Characteristics and personal attributes of successful entrepreneurship.

Entrepreneurial motivation. Functions and role of entrepreneurs.

Problems faced by entrepreneurs and their remedies.

### **UNIT- 4 Project management and financial planning (16 HOURS)**

Market and demand analysis–Demand forecasting.

Technical, management and economical analysis of projects.

Estimation of project cost–Objectives, components and basic of estimates.

Working capital requirement and its estimates.

Sources of Finance–Short term and long terms sources.

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### **Part- 2: Laboratory course (Credits: 02)**

Determination of Mean, Mode and Median.

Data analysis in SPSS.

Analysis of Variance (ANNOVA).

Use of Excel Sheet.

Industrial Visit.

### **Books Recommended:**

1. Statistical Methods by S.P. Gupta (43rd Edition, Sultan Chand & Sons).
2. Introduction to Biostatistics (A Textbook of Biometry) by P.N. Arora & P.K. Malhan (2nd Edition, Himalaya Publishing House).
3. Entrepreneurial Development by S.S. Khanka (5th Edition, S. Chand & Company Ltd).
4. Projects: Planning, Analysis, Selection, Financing, Implementation, and Review by Prasanna Chandra (9th Edition, McGraw Hill Education).