

**DEPARTMENT OF BIOTECHNOLOGY**  
**GOVT. DEGREE COLLEGE BARAMULLA**

**SEMESTER 1<sup>st</sup> (NEP)**

**SKILL COURSE**

**SUBJECT: BIOTECHNOLOGY**

**TITLE: FOOD, PHARMA AND BEVERAGE INDUSTRIES**

**Code: BBT22S102**

CREDIT: (2+2) THEORY: 02; PRACTICAL: 02

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**Course Objective:**

*To introduce students to basic skills required in food, pharma and beverage industries*

**Learning Outcomes:**

*Student should be able to prepare different standard solutions and food products*

*Students should understand importance of food, pharma and beverage industries*

*Students should be able to distinguish between the different food products*

**UNIT- I INTRODUCTION TO FOOD INDUSTRY (16 HOURS)**

Introduction, status and importance of food industry in India. Types of food products: Cereal-based snacks; fruit and vegetable-based Products, Meat & dairy products, Manufacturing process for food products; Introduction to Extruded products, Spices and nuts.

**UNIT- II INTRODUCTION TO PHARMA AND BEVERAGE INDUSTRY (16 HOURS)**

Introduction to Pharma Industry, Status and importance of Pharma industry in India. Introduction to beverage industry, Status and importance of beverage industry in India, Different types of beverages.

**PRACTICALS**

1. Preparation of Standard solutions
2. Preparation of Yogurt
3. Preparation of pickles
4. Gram staining technique of microbes
5. Detection of pathogenic bacteria in Water sample
6. Determination of TSS of various fruit based products
7. Visit to different food processing units

### **Suggested Books**

1. Shi J. (Ed) 2006. Functional Food Ingredients and Nutraceuticals Processing Technologies. CRC
2. Fellows, P. (2004). Food processing Technology: Principles & Practices, 2nd edition, CRC Press USA.
3. Alan H. Varnam and Jane P. Sutherland, Beverages: Technology, Chemistry and Microbiology Volume 2
4. N.K. Jain Introduction to Pharmaceutics, CBS Publishers