

BACHELORS PROGRAMME
BIORESOURCES (MULTI-DISCIPLINARY COURSE)
BRS022I: BIORESOURCES - BIOINDUSTRIES

THEORY (3 CREDITS: 45 HOURS)

Unit: I **(15 Lecture)**

Introduction to Bioindustry: Bioindustry- Concept and recent trends in the development of Bioindustry; Scope and status of Bioindustries in India (Dairy, Sheep, Floriculture); Scope and status of Bioindustries in J &K (Dairy, Sheep, Aquaculture, Horticulture, Cosmetics, Fertilizers, Leather, aquaculture, Ornamental horticulture and Herbal Medicine); Agriculture crop production trends and demand for staple food.

Unit: II **(15 Lecture)**

Bio-based waste utilization: Composting, vermicomposting- methods, materials and advantages; Pulping (mechanical and chemical pulping); Municipal wastes- segregation and uses; Bio-based plastics and fibres; Biomass as energy source, Biogas production, Bio-fuels- Concept and classification. Concept of Bio-villages and biotechnological parks.

Unit: III **(15 Lecture)**

Green economy and Entrepreneurship: Marketing strategies for Bioresources products- Product launching, evaluation and advertisements, value addition; Entrepreneurship, Small Scale Industries, Self-employment schemes in relation to bioindustries; Status and scope and of establishing bio-based small scale industries Concept of Green entrepreneurship. Intellectual property rights (Patents, Copy Rights, & Trademarks);

Suggested Readings:

Entrepreneurship: New Venture Creation, David H. Holt

Entrepreneurship and Small Business Management: C.B. Gupta, S.S. Khanka,

Vermiculture and Organic Farming. Sathe, T.V. (2004) Daya publishers.

Bio-fertilizers and organic Farming Vayas S.C, Vayas, and Modi, H.A. (1998)

Principles of Intellectual Property. N.S. Gopala Krishnan & T.G. Agitha, (2009)

Entrepreneurial Development by S.S. Khanka (S. Chand)

Intellectual property rights in the WTO and developing countries. Watal J (2001)