Singapore.4th edition.

- Webster, J. and Weber, R. (2007). Introduction to Fungi, Cambridge University Press, Cambridge. 3rd Ed. 9.
- 10. Sethi, I.K. and Walia, S.K. (2011). Textbook of Fungiand Their Allies, Macmillan Publishers India Ltd.
- 11. Sharma, P.D. (2011). Plant Pathology, Rastogi Publication, Meerut, India.
- 12. Vashistha, P.C., Sinha, A.K., Kumar, A. (2010). Pteridophyta. S. Chand. Delhi, India.
- 13. Bhatnagar, S.P.& Moitra, A. (1996). Gymnosperms. New Age International (P)LtdPublishers, N. Delhi.
- 14. Parihar, N.S. (1991). An introduction to Embryophyta: Vol.I. Bryophyta. Central Book Depot. Allahabad.
- 15. Raven, P.H., Johnson, G.B., Losos, J.B., Singer, S.R. (2005). Biology, TataMcGrawHill, Delhi.
- 16. Vanderpoorten, A.&Goffinet, B. (2009) Introduction to Bryophytes. Cambridge University Press.

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#### III. **SKILL ENHANCEMENTCOURSE- SEC 2:** MINOR FOREST PRODUCE

Marks: 75 (ESE: 3Hrs) = 75

#### **Course Objectives:**

1. The purpose of this course is to familiarize with Minor Forest Products, management, collection, storage and post-harvest processing.

## **Course Learning Outcomes:**

On successful completion of this course the student should be able to:

- 1. To acquaints with Minor Forest Products (NWFPs) and their scientific extraction, processing and disposal.
- Livelihood of indigenous community based on minor forest produce. 2.

#### **Course Content:**

Unit 1:Introduction: Forest of Jharkhand and Minor Forest Produce.

### **Unit 2:Forest produce of Jharkhand:**

Aromatic and Medicinal Plants: Neem, Karanj, Giloy, Munga, Pudina, Van Tulsi, Tulsi, Sweet flag, Kalmegh, Satavar, Lemon grass Nutritional Plants: Mushroom, Mahua flower, Imli, Chironjee, Kathal Oil Yielding Plants: Sal Seed, Mahua Seed, Neem Seed, Karanj Seed, Kusum, Castor Fruit Trees: Kendu, Ber, Sahtoot, Mango, Jamun, Piyar, Karonda, Carombola Leafy Vegetables: Chakor Sag, Beng Sag, Konar Sag

Unit 3:Source and Use of Minor Forest Products (MFPs): Gums and Resins, Katha, Dyes, Tannins, Oils. Technologies for extraction of Gums, Resins, Katha, Dyes, Tannins, Oils and other products. (8 Lectures)

Unit 5: Post Harvest Technology: Cleaning, Packing, Storage and Processing. (3 Lectures)

Unit 6: Marketing of Minor Forest Produce: Primary Agriculture Credit Society (PACS), Vyapaar Mandal Sahyog Samity (VMSS), Primary Minor Forest Produce Co-Operative Societies (PMFPCS), Women SHG or Repudiated NGO.

Unit 7: Forest Conservation.		(2 Lectures)
Unit 8: Strategy for Minor H	Forest Produce Management.	(2 Lectures)
Unit 9: Livelihood based on Minor Forest Produce of Jharkhand: Bamboos, Canes and Grass.		
		(6 Lectures)

(Credits: Theory-03) 45 Hours

Pass Marks: Th (ESE) = 30

# (2 Lectures)

(20 Lectures)