

Government Degree College Baramulla

SEMESTER – 1st

Open Elective Course/ Multidisciplinary

Subject: BOTANY

Title: Plants for Human Welfare

Course code: BBO22M103

Credits: Theory – 03

Contact hours: 48 (T)

Course Objectives:

To impart the basic understanding of plants to students about economic importance, medicinal values, conservation and diversity of different classes of plants and to acquaint them about the classification, structure, morphology and reproduction.

Learning Outcomes:

After thoroughly understanding the course the student should be able to:

- *Understand the morphological features of different classes of plants as well as their differentiation.*
- *Understand the medicinal value and food value of different classes of plants.*
- *Understand the importance of plants in our daily life and need of conservation strategies.*

Unit 1. Morphology of Flowering plants

(16 Contact hours)

- Morphology of Root, Stem, Leaf, Flower.
- Modifications of Root, Stem, Leaf

Unit II. Major Food Crops

(16 Contact hours)

Plants as food

Origin, Morphology, cultivation and food values of

- Wheat
- Rice
- Maize

Plants as Spices

Spices and condiments (Saffron, Garlic, Ginger, Saunf, Turmeric, Chilies, Cumin)

Timber yielding plants of Kashmir- Popular, Pinus, Juglans, Salix.

Fruits of Kashmir: Apple, Plum, Peaches, Almond, Walnut etc.

Oil yielding plants of Kashmir: Sunflower, Linseed and Mustard

Unit III. Medicinal Plants

(16 Contact hours)

Introduction and Scope

Some common Herbal practices used to cure

- Fever
- Cough and Cold
- Worms
- Arthritis

Traditional uses of medicinal plants

- Podophyllum
- Datura
- Rheum
- Bergenia
- Atropa
- Aconitum
- Artemisia

Books recommended:

1. Balick, Michael J. "Economic botany of the Guahibo. I. Palmae." *Economic Botany* 33.4 (1979): 361-376.
2. Biswas, Bidhan Ch, Amit Roy, and B. K. Sen. "Economic Botany: a bibliometric study." *Malaysian Journal of Library & Information Science* 12.1 (2007): 23-33.
3. Dar, Rafiq Ahmad, Akhila Nand Rai, and Imtiyaz Ahmad Shiekh. "*Stigmina carpophila* detected on *Prunus armeniaca* and *Prunus persica* in India." *Australasian Plant Disease Notes* 12.1 (2017): 1-4.
4. Dar, Rafiq Ahmad. *Fungal Taxonomy: A Molecular Approach*. Educreation Publishing.
5. Hill, Albert Frederick. "Economic botany. A textbook of useful plants and plant products." *Economic botany. A textbook of useful plants and plant products*. 2nd edn (1952).
6. Kochhar, Suraj Lal. *Economic botany*. Cambridge University Press, 2016.
7. Lewis, Walter H., and Memory PF Elvin-Lewis. *Medical botany: plants affecting human health*. John Wiley & Sons, 2003.
8. Pandey, B. P. *Economic botany*. S. Chand Publishing, 1999.
9. Verma, V. *Textbook of economic botany*. Ane Books Pvt Ltd, 2009.
10. Wickens, Gerald E. "What is economic botany?." *Economic botany* 44.1 (1990): 12-28.