

R. E. Society's
**R. P. Gogate College of Arts & Science
and
R. V. Jogalekar College of Commerce
(Autonomous), Ratnagiri**



**Department of Botany
UG Programme 2024-25
Syllabus for F. Y. B. Sc. (Botany)
Semester II**

Under Choice Based Credit System (CBCS)

**R. P. Gogate College of Arts and Science and R. V. Jogalekar College of Commerce
(Autonomous), Ratnagiri
Board of Studies in Botany
Syllabus for F. Y. B. Sc. Botany effective from the year 2024-25**

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R. V. Jogalekar College of Commerce (Autonomous), Ratnagiri
Board of Studies in Botany
Academic Year 2024-25**

Nomenclature of the Course	SEC-Propagation of Horticultural Plants -I	
Class	F.Y.B.Sc.	
Semester	02	
Course Code	USBOTSEC1	
No. of Credits	02	
Nature	Practical	
Type	SEC	
Course Outcomes:		
Students will be able to:		
CO1: Gain the knowledge about various propagation techniques for horticultural plants.		
CO2: Able to propagate the vegetable,spices and medicinal plants by different propagation techniques.		
CO3: Learn the stem, root and leaf cutting techniques for propagation of plants.		
CO4: Able to propagate the horticultural plants by use of underground plant parts like corms and bulbs.		
Syllabus:		
Unit No.	Unit Title	Sub titles (Learning Points)
1.	Plant propagation techniques in Horticultural Plants -I	Introduction to plant propagation Plant parts used for propagation : Root, Stem, Leaf, Corm,Bulb,Rhizome and Seeds. Plant Propagation Techniques: Cutting -Stem, Root,Leaf Vegetative plant parts : Rhizome , Bulb, Corm,Runners Layering : Simple , Compound, Air layering Propagation by Seeds Study of garden implements and their uses
Practical		
1.	Plant propagation techniques in Horticultural Plants -I	Study of garden implements and their use. for different purposes. <ul style="list-style-type: none"> ● Implements for digging and soil preparation ● Implements for weeding ● Implements for pruning

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	<ul style="list-style-type: none"> ● Implements for budding ● Implements for watering ● Implements for Spraying ● Implements for harvesting
	Preparation of bed , preparation of pot .
	Plant propagation by Seeds - <i>Ocimum sanctum, Abrus precatorius</i>
	Plant propagation by Rhizome- <i>Curcuma longa, Zinziber officinale, Acorus calamus</i>
	Plant propagation by Crm/ Bulb- <i>Allium sativum, Allium cepa</i>
	Plant propagation by Runner- <i>Cynodon dactylon, Centella asiatica</i>
	Plant propagation by Stem cutting : <i>Hibiscus, Rose</i>
	Plant propagation by Root cutting : - <i>Aegle marmelos</i>
	Plant propagation by Leaf cutting : - <i>Aloe vera , Bryophyllum</i>
	Plant propagation by Simple layering: <i>Piper longum, Piper nigrum</i>
	Plant propagation by Compound layering: <i>Pothos , Piper nigrum</i>
	Plant propagation by Air layering: <i>Cinnamomum zeylanicum</i>
Prescribed Text/s (If any):	
<ul style="list-style-type: none"> ● Basic Horticulture - Jitendra singh , Kalyani publication,2008. ● Propagation practices - M K Sadhu,New age international,1989. ● Indoor gardening - S C Dey,Agrobios (india),2003. ● Plant propagation and nursery management -Dr. Arun kumar singh,Arun kumar,S K Kataria and Sons Publication,2023. ● Instant Horticulture- S N Gupta,Jain Brothers,2023. ● Basics of horticulture - K.V.Peter,New India Publishing Agency (NIPA),2021 	
Other Learning Resources recommended:	

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Evaluation Pattern

A) Continuous Internal Evaluation: Maximum Marks: 20 marks

Method	Marks
Active class participation	05 marks
Journal	05 marks
Class test	10 marks

B) Semester End Examination: Maximum Marks: 30 marks

Question No. and Sub questions (If any)	Unit and sub unit (with number and title)	Type of Question (Essay / short note / Objective / Diagram, etc.)	Marks
Q. 1	Plant propagation techniques in Horticultural Plants -I	Propagation technique	10 marks
Q. 2.		Preparation of bed/pot	10 marks
Q. 3.		Identify and describe	10 marks

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**F.Y.B.Sc.
(Skill Enhancement course)**

Duration- 2 hrs

Maximum marks 30

Note- Show all the preparations to the examiner.

- | | | |
|-----|--------------------------------------------------------------------------------------------------------------|----|
| Q.1 | Demonstrate the propagation techniques ----- and ----- using specimen A and B. | 10 |
| Q.2 | Demonstrate the technique of preparation of bed / pot for the given plant specimen C and D. | 10 |
| Q.3 | Identify the plant part and describe the propagation technique to be followed for specimen E, F, G, H and I. | 10 |

Keys:-

A and B- Vegetative propagation- runner, suckers, bulb, tuber, rhizome

Cutting- stem, leaf cutting

Layering- air layering

Grafting - Whip/ whip and tongue

Budding- T budding

C and D- Any two plants from the prescribed syllabus.

E, F, G, H and I

The plants other than those kept in Q.1.

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Date: 16/04/24

Place: Ratnagiri



Signature

Chairperson and HoD