

**GOVERNMENT DEGREE COLLEGE, LUXETTIPET
CERTIFICATE COURSE ON BASIC GARDENING TECHNIQUES
PLANT PROPAGATION**

OBJECTIVES OF THE COURSE

This is the basic course in gardening techniques. As it is based on applicative methods and involved with practical knowledge, the outcomes of the course will be very useful in generating self employment and also helps in agricultural practices, where most of the students' parents are from agricultural background.

OUTCOMES OF THE COURSE

- Development of applicative skills
- Knowledge on growing plants
- Knowledge of asexually and sexually growing plants.
- Attaining practical knowledge for developing a garden.

ATTAINMENT OF COURSE OUTCOMES

After the completion of course an exam on objective type questions with 40 marks of theory question paper and one practical exam for 10 marks. Students scoring 40% and above will be given certificates and grades are mentioned for merit students.

Grading for the Course

Theory + Practical	----- 90-100%-----	A+Grade
Theory + Practical	-----80-90%-----	A Grade
Theory + Practical	-----70-80%-----	B Grade
Theory + Practical	-----60-70%-----	C Grade
Theory + Practical	-----50-60%-----	D Grade
Theory + Practical	----- 40-50%-----	E Grade

**GOVERNMENT DEGREE COLLEGE, LUXETTIPET
DEPARTMENT OF BOTANY
LIST OF STUDENTS**

S.No	Name of the Student	Roll No	GROUP & YEAR
1	SOFIYA MUSKAN	4391	B.Sc II Yr
2	E. SWATHI	4392	B.Sc II Yr
3	T. PRIYANKA	4393	B.Sc II Yr
4	B. ANJALI	4394	B.Sc II Yr
5	A.RAVENNA	4395	B.Sc II Yr
6	R.NAGALAXMI	4396	B.Sc II Yr
7	B.TIRUMALA	4397	B.Sc II Yr
8	M. GANGA BHAVANI	4398	B.Sc II Yr
9	P. CHANDRAKALA	4399	B.Sc II Yr
10	P. SHIVANI	43910	B.Sc II Yr
11	S. HARSHAVARDHINI	43911	B.Sc II Yr
12	R. JYOTHI	43912	B.Sc II Yr
13	T. PRIYANKA	43913	B.Sc II Yr
14	SOFIA MUSKAN	43914	B.Sc II Yr
15	C. SAIMANOJ	43915	B.Sc II Yr
16	A. INDU	43916	B.Sc II Yr
17	G.MAINA	43917	B.Sc II Yr
18	K. MANISHA	43918	B.Sc II Yr
19	E. ANUSHA	43919	B.Sc II Yr

			B.Sc II Yr
20	N. MALLESHWARI	43920	B.Sc II Yr
21	L. VISHNUVARDHAN	43921	B.Sc II Yr
22	G. NITHIN	43922	B.Sc II Yr
23	G. NAVYA	43923	B.Sc II Yr
24	P. SAI KUMAR	43924	B.Sc II Yr
25	G. RAVICHANDRA	43925	B.Sc II Yr
26	E. ANJANNA	43926	B.Sc II Yr
27	V. VAMSHIK REDDY	43927	B.Sc II Yr
28	T. PRASANNA	43928	B.Sc II Yr
29	P. NAVEEN	43929	B.Sc II Yr
30	D. MONISHA	43930	B.Sc II Yr

**GOVERNMENT DEGREE COLLEGE, LUXETTIPET
PERFORMANCE OF STUDENTS**

S.No	Name of the Student	Roll No	GROUP & YEAR	GRADE
1	SOFIYA MUSKAN	4391	B.Sc II Yr	A+
2	E. SWATHI	4392	B.Sc II Yr	A+
3	T. PRIYANKA	4393	B.Sc II Yr	A
4	B. ANJALI	4394	B.Sc II Yr	A
5	A.RAVENNA	4395	B.Sc II Yr	A
6	R.NAGALAXMI	4396	B.Sc II Yr	A
7	B.TIRUMALA	4397	B.Sc II Yr	A
8	M. GANGA BHAVANI	4398	B.Sc II Yr	A
9	P. CHANDRAKALA	4399	B.Sc II Yr	A
10	P. SHIVANI	43910	B.Sc II Yr	A
11	S. HARSHAVARDHINI	43911	B.Sc II Yr	A+
12	R. JYOTHI	43912	B.Sc II Yr	A
13	T. PRIYANKA	43913	B.Sc II Yr	A
14	SOFIA MUSKAN	43914	B.Sc II Yr	A+
15	C. SAIMANOJ	43915	B.Sc II Yr	A
16	A. INDU	43916	B.Sc II Yr	A
17	G.MAINA	43917	B.Sc II Yr	A
18	K. MANISHA	43918	B.Sc II Yr	A
19	E. ANUSHA	43919	B.Sc II Yr	A
20	N. MALLESHWARI	43920	B.Sc II Yr	A
21	L. VISHNUVARDHAN	43921	B.Sc II Yr	A

22	G. NITHIN	43922	B.Sc II Yr	AB
23	G. NAVYA	43923	B.Sc II Yr	A+
24	P. SAI KUMAR	43924	B.Sc II Yr	A
25	G. RAVICHANDRA	43925	B.Sc II Yr	A
26	E. ANJANNA	43926	B.Sc II Yr	A
27	V. VAMSHIK REDDY	43927	B.Sc II Yr	AB
28	T. PRASANNA	43928	B.Sc II Yr	A
29	P. NAVEEN	43929	B.Sc II Yr	A
30	D. MONISHA	43930	B.Sc II Yr	A

J.K. 016
Principal
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Luxettipet-504 215

PRINCIPAL

GOVERNMENT DEGREE COLLEGE, LUXETTIPET
BASIC GARDENING TECHNIQUES
PLANT PROPAGATION
SYLLABUS FOR CERTIFICATE COURSE

CONTENT

Duration: 30 hrs

INTRODUCTION

1hr

What is Seed? ,Definition and Importance of Plant propagation.

Types of Propagation

2hr

Sexual Propagation, Merits of Sexual Propagation, Demerits of Sexual Propagation
 Asexual Propagation, Merits of asexual Propagation, Demerits of asexual Propagation.

Plant propagation by cutting

3hr

Definition of Cutting, stem cutting and procedure. Hardwood cutting and procedure,
 Semi Hardwood cutting and procedure. soft wood cutting and procedure and
 herbaceous cutting and procedure

Practica

2hr

Leaf cutting

1hr

Definition, selection of cutting
 Practical

Plant propagation by layering

2hr

Definition of Layering, types of layering, Simple layering, Compound layering,
 Trench layering, Mound layering, Air layering.

Practical

2hr

Plant propagation by Grafting

4hr

Definition of grafting, advantages of grafting, disadvantages of grafting, Rootstock grafting,
 characteristics of rootstock, raising of root, Scion, Definition, characteristics of scion,
 selection of scion, methods of grafting. Scion attached methods, 1. Sliced approach grafting
 2. Tongue grafting, Scion detached methods 1. Veneer grafting 2. Side grafting 3. Wedge
 or cleft grafting 4. Stone or epicotyl grafting 4. Whip or splice grafting, 5. Bark grafting

Practical

2hr

<u>Grafting</u>	3hr
for special purposes	
Bridge grafting, definition, selection of material , procedure	
Top working, definition, selection of material, procedure and precautions to be taken.	
Practical	1hr
<u>Propagation by Budding</u>	2hr
Definition of budding, types of budding, t-budding, patch budding, ring budding, flute budding, forkert budding, chip budding.	
Practical	
<u>Tissue culture</u>	1hr
Definition, procedure and importance	
Practical	
<u>Plant propagation by specialised organs.</u>	2hrs
Bulb, Corm, Tuber, Rhizome, Runner, Sucker, Tuberous root.	
Practical	
<u>Maintenance of Greenhouse and Polyhouse</u>	2hr
Exam on theory and practical	2hrs
Reference: NCERT TEXTBOOK	


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4. Chip budding is applicable when the bark of a plant is _____
(a) thick (b) thin
(c) rough (d) smooth []
5. Veneer grafting is appropriate for_____.
(a) mango (b) guava
(c) lemon (d) pomegranate []
6. Older and inferior plants can be rejuvenated through_____.
(a) hardwood cutting (b) approach grafting
(c) veneer grafting (d) Top working []
7. Rootstock and scion are required in _____.
(a) layering (b) grafting
(c) cutting (d) gootee []
8. Epicotyl grafting is also called _____grafting.
(a) stone (b) cleft
(c) wedge (d) whip grafting []
- 9 Top working can be done by _____.
(a) top grafting (b) stone grafting
(c) veneer grafting (d) tongue grafting []
10. Air layering is also known as _____.
(a) gootee (b) simple layering
(c) compound layering (d) None of the above []

C. Practical

10marks

Demonstrate the process of cleft grafting

50

A+

Sofiya Muskan
BZC. III year
HT. NO: 4391.

GOVERNMENT DEGREE COLLEGE, LUXETTIPET
EXAMINATION
BASIC GARDENING TECHNIQUES, CERTIFICATE COURSE

Maximum marks: 50

Time: 2hrs

Date:

A. Fill in the blanks

10x2 marks

- Multiplication or reproduction of plants is called Plant propagation
- Plants that do not produce seeds are propagated by Vegetative reproduction
- Growing of tissues in controlled conditions is known as tissue culture
- The process of reproduction of plants by seeds is called Sexual propagation.
- Plants propagated by Seeds live longer
- In Simple layering, a partial tongue-like cut is given on a branch.
- Rooted plant on which scion is grafted is called Root stock
- The art of inserting a scion bud into rootstock is known as budding
- T-budding is also known as Shield budding.
- Dahlia and caladium are propagated by tubers

20

B. Multiple Choice Questions

10x2 marks

- Bryophyllum is propagated by _____.
 (a) root cutting (b) stem cutting
 (c) leaf cutting (d) seeds [C]
- Jasminum is propagated by _____.
 (a) root (b) stem
 (c) leaf (d) seed [b]
- Asexually propagated plants _____.
 (a) are true-to-type (b) bears late fruit
 (c) live longer (d) have large canopy [a]

-20-



**GOVERNMENT DEGREE COLLEGE, LUXETTIPET
CERTIFICATE**

GARDENING TECHNIQUES CERTIFICATE COURSE

This is to certify that SOFIYA MUSKAN

OF B.Sc B.Z.C IIIrd has completed her/his certificate course in Basic Gardening
Techniques for the academic year 2021-2022. She/He has secured A+ grade in the
course.

[Signature]

DEPARTMENT

[Signature]

RESOURCE PERSON

[Signature]

PRINCIPAL