

Shri Shivaji Education Society Amravati's
SCIENCE COLLEGE, Congress Nagar, Nagpur
Department of Botany
Organized
Certificate Course: Floriculture and Landscaping
Session 2019-20

REPORT

“Floriculture and Landscaping” Certificate Course was organized by Department of Botany in the session 2019-20. The duration of certificate course was 10 weeks (30 Hrs.) from 6th December 2019 to 21st February 2020. This course contained per week 2 lectures and 1 practical. Under the certificate course department conducted workshops, guest lecture by experts, nursery techniques, student's participation in various competitions etc. Fifty six students were registered in this course. Through this, students were enriched with the skill of floriculture & landscaping. By this knowledge, students can start their own nurseries, floriculture & consultancy. Students learned about Aesthetics, Environmental benefits, Health and Well-being, Economic importance, Cultural and Social significance etc.

Department organized one day workshop on ‘Flower arrangement’ on 11th January 2020 by Hon'ble Mrs. Anju Parchure, Vice President, Nagpur Garden Club, to sharpen the entrepreneurship skill among the students under Floriculture & Landscaping certificate course. Flower arrangement is an art in which, creativeness and experimentation could be beautifully arranged. Different types of flower arrangement were made by the students. Madam guided about the potted flowering plants, cut flowers, herbaceous perennial plants, foliage plants etc.

One day workshop on ‘Bouquet making’ was organized by Botany department under the Floriculture & Landscaping Certificate Course on 18th January 2020. Hon'ble Mrs. Harkare, demonstrated the technique of bouquet preparation. She also explained about the importance and types of indoor and outdoor plants. Students prepared beautiful floral bouquets in this workshop.

Hon'ble Mr. Amit Pophali, Home Agro, Nagpur in his lecture organized on 8th February 2020, explained the importance of landscaping in industries, institutions, apartments etc. Students learned about the different types of landscaping, preparation of landscaping, selection of plants, designs of landscaping etc. during the power point presentation. Students participated in various competition organized by Garden club, Nagpur and Friends International, Nagpur and prepared cut

flower arrangements, floral bouquets, floral carpet, landscape design etc. Students also visited to Biodiversity park.

Hon'ble Prof. M.P. Dhore, Principle appreciated the efforts and interest shown by the student participants. Dr. Mrs. R.H. Mahakhode, coordinator of this Add-on course has encouraged & given valuable guidance. Dr. R.N. Deshmukh, Head of Department said that through this, students were enriched with the skill of floriculture & landscaping. By this knowledge, students can start their own nurseries, floriculture & consultancy. Dr. Mrs. P.S. Tiwari and Dr. Mrs. S.D. Puranik were supported to making this programme successfully.

The certificate course was completed by taking theory and practical examination of the students. Question paper was of 80 Marks and it contains 40 objective type questions and each carries 2 marks. Students were evaluated on the basis of hands-on training on bouquet making, flower arrangement, bonsai technique, participation in various competitions and visit for Practical examination which carries 20 marks. Certificates were distributed after the successful completion of the certificate course to the students.



Dr. Rupali H. Mahakhode
Coordinator
Floriculture and Landscaping

Certificate Course: Floriculture and Landscaping

Workshops on Flower arrangement and Bouquet making, Floral Carpet, Bonsai Technique, Landscaping and Nursery Techniques



Certificate Course: Floriculture and Landscaping

Student actively Participated in various competitions (Floral carpet, Landscaping, Flower arrangement)



Certificate Course: Floriculture and Landscaping

Student actively Participated in various competitions
(Floral carpet, Landscaping, Flower arrangement)



Students visited to exhibition and gardens



Mahakhode

Dr. R.H. Mahakhode
Coordinator
Floriculture and Landscaping

To,
The Principal
SSES Amt's Science College,
Congress Nagar, Nagpur-12

Subject: For permission to conduct the add on courses in the Department of
Botany during 2019-2020

Respected Sir,

This is to request you that, the teachers of our Botany department have prepared the syllabus and modules of the 30 hours certificate courses for the session 2019-2020.

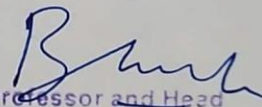
The details of the course module, syllabus and time table is submitted here with.

Hence please permit to run the add on courses and oblige me.

Thanking you

Yours sincerely

Date:- 02/07/2019


Professor and Head
Department of Botany,
SSES Amt's Science College,
Congress Nagar, Nagpur-12

*Permitted
M. Shere*



Shri Shivaji Education Society Amravati's

SCIENCE COLLEGE

Congress Nagar, Nagpur - 440012 (M.S.) India.

Accredited with CGPA of 3.51 at 'A+' grade

A College with Potential for Excellence, Member of APQN

Recognized centre for higher learning An ISO 21001:2018 Certified Institution, A Mentor College under UGC Paramarsh Scheme



Department of Botany

Organizes Certificate Course

'FLORICULTURE AND LANDSCAPING'

2019-2020

About Course: This course provides an overview of the principles and practices of floriculture and landscaping, including the cultivation of ornamental plants, floral design, and landscape planning. Students will learn about plant selection, propagation techniques, design principles, and maintenance strategies for both indoor and outdoor spaces.

- **Course Duration:** 30 hours, 10 weeks (per week 2 theory, 1 practical)
- **Date of course:** 6th Dec.2019 –21st Feb. 2020
- **For Registration Contact:**
Dr. Rupali H. Mahakhode

Course Highlight:

- ❖ Conservation of Biodiversity in *In-situ* & *Ex-situ* conservation.
- ❖ To create bioaesthetic sense amongst the people which will ultimately control the Environmental pollutions.
- ❖ To create job opportunity, self-employment.
- ❖ Beautiful garden gives peace of mind to the person.
- ❖ Work carried out in collaboration with nurseries, laboratories, Industries, Govt. & non-govt. organizations

Shri Shivaji Education Society Amravati's Science College, Congress Nagar, Nagpur.

Department of Botany
Certificate Course 2019-2020
Floriculture and Landscaping

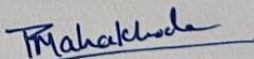
Date: 20/11/2019

Notice

All the UG students of Botany department are hereby informed that the Department of Botany is conducting Certificate Course on "Floriculture and Landscaping". Department provide opportunities to the students to learn Professional Skill, Professional Knowledge and Employability Skill related to job role.

The duration of certificate course is 10 weeks (30 Hrs.) from 6th December 2019 to 21st February 2020. This course contain per week 2 lectures and 1 practical. Under the certificate course department conducts workshops, guest lectures by experts, students participation in various competitions etc. Evaluation of the students takes place on the basis of examination of theory and practical. Last Date of Admission is 30th November 2019. The classes will be commencing from 6th December 2019.

Interesting students of B.Sc. Part I, Part II & Part III should registered themself in early and contact to the Coordinator Dr. R.H. Mahakhode immediately.


Dr. Rupali H. Mahakhode
Coordinator
Floriculture and Landscaping
Department of Botany
Department of Botany
SSES Amt's Science College
Congress Nagar, Nagpur-440012.

Shri Shivaji Education Society Amravati's SCIENCE COLLEGE, Congress Nagar, Nagpur.

**DEPARTMENT OF BOTANY
COURSE MODULE AND SYLLABUS**

Course Title: Certificate Course in 'Floriculture & Landscaping'

Course Coordinator: Dr. Mrs. Rupali H. Mahakhode

Session- 2019-2020

Date of course- 6th December 2019 to 21st February 2020

Course Introduction:

Floriculture is the science of flower cultivation. Examples- Marigold, Rose, Jasmine, gladiolus, tuberose, orchids etc. In India the area under flower cultivation is about 1.70 million ha and the production is 10.03 million tons of loose flower and 1.70 million of cut flowers. The export of flower fetches about Rs. 33 crores. The high potential state for flower production is Karnataka, Andra Pradesh, Tamilnadu, Maharashtra and West Bengal. These flowers are exported to USA and other country.

Landscape is the art of gardening, beautifying a piece of land using garden design, methods and plant materials. It is planning and arrangement of home ground, public area etc. placement of plants according to topography and space. Landscaping has been an indispensable part of architectural design gives aesthetic value to the area where one can relax and feel pleasant.

Course Objectives:

1. Conservation of Biodiversity in *In-situ* & *Ex-situ* conservation.
2. To create bioaesthetic sense amongst the people this will ultimately control the Environmental pollutions.
3. To create job opportunity, self-employment.
4. Beautiful garden gives peace of mind to the person.
5. Work carried out in collaboration with nurseries, laboratories, Industries, Govt. & non-govt. organizations.

Instructional Strategies: Theory class, Hands on training, Visit etc.

Evaluation Strategies: Theory (MCQs) and Practical Examination

Course Outline: (Relevance)

- Overview of floriculture industry
- Basic Botany of flowering plants
- Criteria for plant selection
- Propagation techniques
- Nursery management practices
- Sustainable landscaping techniques
- Elements of landscape design
- Environmental considerations in landscape construction
- Principles of floral design
- Techniques for creating floral arrangements
- Seasonal and thematic designs

Course Outcomes:

1. To demonstrate an understanding of the basic principles of floriculture and landscaping.
2. To identify and describe common ornamental plants, including their botanical characteristics and cultural requirements.
3. To propagate ornamental plants using various techniques such as seeds, cuttings, and division.
4. To design and create floral arrangements using principles of design and appropriate floral materials.
5. To develop landscape plans that incorporate design principles, plant selection, and landscape elements.
6. To apply knowledge and identify sustainable practices in floriculture and landscaping and their importance for environmental stewardship.



Dr. R.H. Mahakhode
Coordinator
Floriculture and Landscaping

Shri Shivaji Education Society Amravati's SCIENCE COLLEGE, Congress Nagar, Nagpur.

DEPARTMENT OF BOTANY

CERTIFICATE COURSE: FLORICULTURE AND LANDSCAPING

Session 2019-2020

Duration of course: Ten weeks (30 Hours):

Per week two theory and one practical

The Structure of Syllabus and system of evaluation –

Course	Theory Papers and Practical	Total Marks	
		Theory	Practical
Certificate Course in Floriculture and Landscaping	Theory paper- Floriculture and Landscaping ➤ Theory examination will be of MCQ pattern having 40 questions each with two equal marks.	80	20
	➤ Practical examination will be based on performance evaluation in the laboratory and participation in various competitions.	Total Marks 100	

R.H. Mahakhode

Dr. R.H. Mahakhode
Coordinator
Floriculture and Landscaping

A. Halder

Signature of IQAC Coordinator
Internal Quality Assurance Cell
(IQAC)

S. S. E. S. A. Science College
Congress Nagar, Nagpur



S. S. E. S. A.

Signature of Principal
Principal
S. S. E. S. Amravati's
Science College, Nagpur.

SYLLABUS
FLORICULTURE AND LANDSCAPING
Certificate course (10 weeks)

Unit-I

Introduction

Importance and Scope of Floriculture and Landscape Gardening

Methods of Vegetative Propagation-Cutting, Layering, Grafting, Budding, Suckers, Rhizome, Tuber, Runner, Stolon, Bulbs, Corms, Bulbils, Nursery structure.

Unit-II

Some Routine Garden Operation- Soil sterilization, Seed sowing, Pricking, Planting and transplanting, Shading, Stopping or pinching, staking, pruning, Clipping or cutting of hedges and edges, Mulching

Flowering Annuals, Herbaceous Perennial, Ornamental Flowering Shrubs, Bougainvillea, Climbers

Unit-III

Ornamental Bulbous Plants, Ornamental Foliage Plants, Cacti and Other Succulents

Palms and Cycads, Ornamental Grasses, Ferns.

Cultivation of Plants in pots, Commercial Floriculture, Garlands and other floral ornaments

Flower arrangements-Japanese flower arrangement

Bonsai technique

Unit-IV

Landscape- Introduction to Landscape Design Process, Studying elements of landscape design, Site analysis and site planning, Introduction to planting patterns, techniques and plants for floriculture, Introduction to Irrigation techniques, Miniature landscape/garden

Practical-

- Nursery Techniques
- Cultivation of plants
- Vegetative Propagation
- Flower Arrangement
- Bonsai technique
- Floral carpet
- Landscaping

Distribution of Marks (100 M): -

1. Theory Paper	80M
2. Practical	20 M
a. Flower arrangement	05M
b. Propagation Techniques	05M
c. Visit	05M
d. Participation in various competition	05M

Mahakhode

Dr. R.H. Mahakhode
Coordinator
Floriculture and Landscaping

Teaching Plan
Certificate Course (10 Weeks)
Floriculture And Landscaping
Session 2019-2020

Week	Hrs.	Syllabus
Week 1	Theory 1	Introduction to Floriculture and Landscape
	Theory 2	Importance and Scope of Floriculture and Landscape Gardening
	Practical 1	Nursery Techniques
Week 2	Theory 3	Methods of Vegetative Propagation-Cutting, Layering, Grafting, Budding,
	Theory 4	Suckers, Rhizome, Tuber, Runner, Stolon, Bulbs, Corms, Bulbils, Nursery structure.
	Practical 2	Cultivation of plants
Week 3	Theory 5	Some Routine Garden Operation- Soil sterilization, Seed sowing, Shading, Stopping or pinching, Pricking
	Theory 6	Planting and transplanting, staking, pruning, Clipping or cutting of hedges and edges, Mulching
	Practical 3	Vegetative Propagation
Week 4	Theory 7	Flowering Annuals, Herbaceous Perennial, Ornamental
	Theory 8	Flowering Shrubs, Bougainvillea, Climbers
	Practical 4	Flower Arrangement
Week 5	Theory 9	Ornamental Bulbous Plants, Ornamental Foliage Plants, Cacti and Other Succulents
	Theory 10	Palms and Cycads, Ornamental Grasses, Ferns.
	Practical 5	Flower Arrangement
Week 6	Theory 11	Cultivation of Plants in pots, Commercial Floriculture,
	Theory 12	Garlands and other floral ornaments
	Practical 6	Bonsai technique
	Theory 13	Flower arrangements-Japanese flower arrangement

Week 7	Theory 14	Bonsai technique
	Practical 7	Floral carpet
Week 8	Theory 15	Introduction to Landscape Design Process.
	Theory 16	Studying elements of landscape design.
	Practical 8	Floral carpet
Week 9	Theory 17	Site analysis and site planning.
	Theory 18	Introduction to planting patterns
	Practical 9	Landscaping
Week 10	Theory 19	Techniques and plants for floriculture Introduction to Irrigation techniques
	Theory 22	Miniature landscape/garden
	Practical 10	Landscaping

Mahakhode

Dr. R.H. Mahakhode
Coordinator
Floriculture and Landscaping
Department of Botany

Shri Shivaji Education Society Amravati's SCIENCE COLLEGE, Congress Nagar, Nagpur.

DEPARTMENT OF BOTANY
CERTIFICATE COURSE: FLORICULTURE AND LANDSCAPING
Session 2019-2020

TIME TABLE

w.e.f. 06/12/2019

Days	Time	
	Theory Classes	Practical Classes
Friday	4:00 PM to 5:00 PM (C5)	--
Saturday	4:00 PM to 5:00 PM (C5)	5:00 PM to 6:00 PM (Botany Lab.)

Mahakhode

Dr. R.H. Mahakhode
Coordinator
Floriculture and Landscaping

Shri Shivaji Education Society Amravati's Science College, Congress Nagar, Nagpur.

Department of Botany
Certificate Course
Floriculture and Landscaping
Session 2019-2020
List of Registered Students

Sr. No.		Surname	Name	Father Name	Sr. No.		Surname	Name	Father Name
1	Ku	Aniqua	Ahmad	A	22		Jichkar	Adinath	J
2	Ku	Atkare	Pallavi	S	23	Ku	Junankar	Astha	A
3		Bawanakr	Swaraj	R	24	Ku	Kalamkar	Vrushali	A
4	Ku	Bhalerao	Tejaswini	K	25	Ku	Karemore	Harshada	B
5	Ku	Bhosle	Gouri	A	26		Kumar	Avnish	R
6		Buche	Mohan	P	27	Ku	Maheshwari	Sakshi	M
7	Ku	Chaurasiya	Sonu	V	28	Ku	Meshram	Mrinali	A
8	Ku	Chittalwar	Monali	V	29	Ku	Meshram	Saloni	S
9		Dani	Kaiwalya	P	30	Ku	Mohadikar	Sanjana	R
10	Ku	Dixit	Pooja	P	31	Ku	Salve	Raksha	R
11	Ku	Fuse	Swapnil	P	32	Ku	Sarak	Dhanashri	K
12	Ku	Gaur	Prakruti	P	33	Ku	Satke	Prachi	K
13		Hedaoo	Mukul	M	34	Ku	Tarale	Sahil	V
14	Ku	Sheikh	Tahrim	M	35	Ku	Tarone	Chankya	V
15	Ku	Shambahrkar	Ruchi	D	36	Ku	Thawkar	Sharannya	S
16	Ku	Tayade	Pratiksha	R	37	Ku	Thorat	Saloni	S
17	Ku	Tembhe	Snehal	R	38	Ku	Tirpude	Shreyash	S
18		Wairagade	Saurabh	V	39	Ku	Warkade	Vibha	D
19	Ku	Palsapure	Nidhi	L	40	Ku	Lakudkar	Radhika	D
20	Ku	Ramteke	Akshaya	G	41		Lihare	Sanjay	G
21		Ingole	Pranay	R	42	Ku	Mahant	Pranjali	A

Sr. No.		Surname	Name	Father Name
43	Ku	Manwatkar	Nidhi	D
44		Mhashakhetri	Tushar	D
45		Meshram	Chahak	G
46	Ku	Mohite	Sakshi	S
47	Ku	Khatke	Anchal	D
48	Ku	Kurhadkar	Divya	G
49	Ku	Masram	Chankshi	K
50	Ku	Meshram	Vaishnavi	D
51	Ku	Meshram	Rutuja	R
52	Ku	Nitnaware	Pallavi	O
53	Ku	Parekh	Honey	S
54		Parchake	Aniket	N
55		Pashine	Bhuvan	S
56	Ku	Patrale	Sakshi	V

R. H. Mahakhode

Dr. R.H. Mahakhode
Coordinator
Floriculture and Landscaping

SHRI SHIVAJI EDUCATION SOCIETY AMRAVATI'S SCIENCE COLLEGE, CONGRESS NAGAR, NAGPUR.

Department of Botany
Certificate Course: Floriculture and Landscaping
Session 2019-2020

Date: 07/01/2020

NOTICE

All the registered students of Botany are hereby informed that they should remain present for workshop on 'Flower arrangement' under Floriculture & Landscaping Certificate Course on 11th January 2020 at 3:00 p.m. in Botany laboratory.

Mahakhode

Dr. Rupali H. Mahakhode
Coordinator
Floriculture and Landscaping
Department of Botany
Assistant Professor
Department of Botany
SS&S Amr's Science College
Congress Nagar, Nagpur-440012.

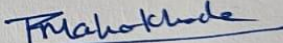
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Department of Botany
Certificate Course: Floriculture and Landscaping
Session 2019-2020

Date: 10/01/2020

NOTICE

All the registered students of Botany are hereby informed that they should remain present for workshop on 'Bouquet making' under Floriculture & Landscaping Certificate Course on 18th January 2020 at 2.30 p.m. in Botany laboratory.


Dr. Rupali H. Mahakhode
Coordinator
Floriculture and Landscaping
Department of Botany
Assistant Professor
Department of Botany
SSES Am's Science College
Congress Nagar, Nagpur-440012.

SHRI SHIVAJI EDUCATION SOCIETY AMRAVATI'S SCIENCE COLLEGE, CONGRESS NAGAR, NAGPUR.

Department of Botany
Certificate Course: Floriculture and Landscaping
Session 2019-2020

Date: 03/02/2020

NOTICE

All the registered students of Botany are hereby informed that they should remain present for guest lecture on 'Landscape gardening and its technique' under Floriculture & Landscape Gardening Certificate Course on 8th February 2020 at 4.00 p.m. in C-1 class room.

R. Mahakhode

Dr. Rupali H. Mahakhode
Coordinator
Floriculture and Landscaping
Department of Botany
Assistant Professor
Department of Botany
SSES Am's Science College
Congress Nagar, Nagpur-440012.

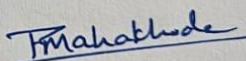
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DEPARTMENT OF BOTANY
CERTIFICATE COURSE EXAMINATION (2019-2020)
Certificate Course: Floriculture and Landscaping

Date: 19/02/2020

NOTICE

All the admitted students of B.Sc. Botany are hereby informed that the certificate course on "Floriculture and Landscaping" examination will be held on 04/03/2020 (Wednesday) at 11:30 am to 1:00 pm in Botany Laboratory at our college centre. All Students should be present in the laboratory before 10 mins. of scheduled time of examination.


Dr. Rupali H. Mahakhode
Coordinator
Floriculture and Landscaping
Department of Botany
Dr. Rupali H. Mahakhode
Assistant Professor
Department of Botany
SSES Amt's Science College
Congress Nagar, Nagpur-440012.

Shri Shivaji Education Society Amravati's Science College, Congress Nagar, Nagpur.

DEPARTMENT OF BOTANY
CERTIFICATE COURSE EXAMINATION 2019-2020
FLORICULTURE AND LANDSCAPING

Centre- Shivaji Science College, Nagpur.
Time: 11:00 am-12:30 pm

Date: 04/03/2020
Marks: 80M

Sr. No.	Roll No.		Surname	Name	Father Name	Signature
1	BOT 01	Ku	Aniqua	Ahmad	A	
2	BOT 02	Ku	Atkare	Pallavi	S	
3	BOT 03		Bawanakr	Swaraj	R	
4	BOT 04	Ku	Bhalerao	Tejaswini	K	
5	BOT 05	Ku	Bhosle	Gouri	A	
6	BOT 06		Buche	Mohan	P	
7	BOT 07	Ku	Chaurasiya	Sonu	V	
8	BOT 08	Ku	Chittalwar	Monali	V	
9	BOT 09		Dani	Kaiwalya	P	
10	BOT 10	Ku	Dixit	Pooja	P	
11	BOT 11	Ku	Fuse	Swapnil	P	
12	BOT 12	Ku	Gaur	Prakruti	P	
13	BOT 13		Hedaoo	Mukul	M	
14	BOT 14	Ku	Sheikh	Tahrim	M	
15	BOT 15	Ku	Shambahrkar	Ruchi	D	
16	BOT 16	Ku	Tayade	Pratiksha	R	
17	BOT 17	Ku	Tembhe	Snehal	R	
18	BOT 18		Wairagade	Saurabh	V	
19	BOT 19	Ku	Palsapure	Nidhi	L	
20	BOT 20	Ku	Ramteke	Akshaya	G	

Sr. No.	Roll No.		Surname	Name	Father Name	Signature
21	BOT 21		Ingole	Pranay	R	Pranay
22	BOT 22		Jichkar	Adinath	J	Jichkar
23	BOT 23	Ku	Junankar	Astha	A	Astha
24	BOT 24	Ku	Kalamkar	Vrushali	A	Plamkar
25	BOT 25	Ku	Karemore	Harshada	B	Amore
26	BOT 26		Kumar	Avnish	R	Avnish
27	BOT 27	Ku	Maheshwari	Sakshi	M	Maheshwari
28	BOT 28	Ku	Meshram	Mrinali	A	Mrinali
29	BOT 29	Ku	Meshram	Saloni	S	Saloni Meshram
30	BOT 30	Ku	Mohadikar	Sanjana	R	Sanjana
31	BOT 31	Ku	Salve	Raksha	R	Rsalve
32	BOT 32	Ku	Sarak	Dhanashri	K	Dharak
33	BOT 33	Ku	Satke	Prachi	K	Prachi Satke
34	BOT 34	Ku	Tarale	Sahil	V	Tarale
35	BOT 35	Ku	Tarone	Chankya	V	Tarone
36	BOT 36	Ku	Thawkar	Sharannya	S	Sham
37	BOT 37	Ku	Thorat	Saloni	S	Saloni
38	BOT 38	Ku	Tirpude	Shreyash	S	Shreyash
39	BOT 39	Ku	Warkade	Vibha	D	Vibha
40	BOT 40	Ku	Lakudkar	Radhika	D	Radhika
41	BOT 41		Lilhare	Sanjay	G	Lilhare
42	BOT 42	Ku	Mahant	Pranjali	A	Pranjali
43	BOT 43	Ku	Manwatkar	Nidhi	D	Nidhi Man
44	BOT 44		Mhashakhetri	Tushar	D	Tushar
45	BOT 45		Meshram	Chahak	G	C. Meshram
46	BOT 46	Ku	Mohite	Sakshi	S	Sakshi

Sr. No.	Roll No.		Surname	Name	Father Name	Signature
47	BoT 47	Ku	Khatke	Anchal	D	Akhatke
48	BoT 48	Ku	Kurhadkar	Divya	G	Divya
49	BoT 49	Ku	Masram	Chankshi	K	Masram
50	BoT 50	Ku	Meshram	Vaishnavi	D	Vmeshram
51	BoT 51	Ku	Meshram	Rutuja	R	RMeshram
52	BoT 52	Ku	Nitnaware	Pallavi	O	Pallavi
53	BoT 53	Ku	Parekh	Honey	S	Honey
54	BoT 54		Parchake	Aniket	N	AniketParchake
55	BoT 55		Pashine	Bhuvan	S	BPhashine
56	BoT 56	Ku	Patrale	Sakshi	V	Sakshi

Mahakhode
 Dr. Rupali H. Mahakhode
 Coordinator
 Floriculture and Landscaping
 Department of Botany
 Dr. Rupali H. Mahakhode
 Assistant Professor
 Department of Botany
 SSES Am's Science College
 Congress Nagar, Nagpur-440012.

Shri Shivaji Education Society Amravati's Science College, Congress Nagar, Nagpur.

**Department of Botany
Certificate Course Examination
Floriculture & Landscaping
Session-2019-2020**

Name: _____ Roll No: _____

Class: _____ Group: _____ Invigilator Sign: _____

Name and Signature of Valuer: _____ Marks Obtained: _____

Time: 1:30 hr.

Max. Marks: 80

Note: 1) All questions are compulsory and carry equal marks.

Q. Multiple choice question-

(40 X 2 Marks)

- Which of the following is a primary function of the sepal in a flower?
 - Protecting the flower bud
 - Attracting pollinators
 - Producing pollen
 - Supporting the plant's stem
- The process of growing new plants from a piece of a parent plant is known as:
 - Cutting
 - Grafting
 - Layering
 - Inarching
- To increase the longevity of flowers in a vase, what is commonly added to the water?
 - Bleach
 - Aspirin
 - Sugar
 - Vinegar
- Which plant hormone is primarily involved in promoting root formation?
 - Gibberellin
 - Cytokinin
 - Auxin
 - Ethylene
- The botanical term for plants with reproductive organs enclosed in a fruit is:
 - Gymnosperms
 - Angiosperms
 - Bryophytes
 - Pteridophytes
- Which of the following is NOT a method of plant propagation?
 - Division
 - Fertilization
 - Seed sowing
 - Tissue culture
- The effect of using monochromatic colors in a landscape design is to:
 - Create harmony and unity
 - Increase visual excitement
 - Enhance contrast
 - Add complexity
- The primary purpose of using mulch in gardens is to:
 - Improve soil drainage
 - Prevent weed growth
 - Increase soil fertility
 - Provide plant nutrients

9. Which type of tree has a broad, spreading canopy and is ideal for providing shade?
- a. Columnar tree
 - b. Pyramidal tree
 - c. Umbrella tree
 - d. Fountain tree
10. In landscape design, which feature is used to manage water runoff and reduce soil erosion?
- a. Retaining wall
 - b. Pergola
 - c. Decking
 - d. Garden path
11. Which of the following is an example of a deciduous plant?
- a. Pine tree
 - b. Oak tree
 - c. Evergreen shrub
 - d. Cactus
12. The best time to prune most deciduous trees is:
- a. Spring
 - b. Summer
 - c. Fall
 - d. Winter
13. What is the main purpose of a drip irrigation system in landscaping?
- a. Watering large areas quickly
 - b. Reducing water waste by delivering water directly to the plant roots
 - c. Enhancing the appearance of the garden
 - d. Preventing soil erosion
14. Which landscape design element is used to create a sense of enclosure and privacy?
- a. Fountain
 - b. Pathway
 - c. Hedge
 - d. Arbor
15. The term used to describe the arrangement of plants to create a visual effect is:
- a. Planting design
 - b. Landscape architecture
 - c. Plant layout
 - d. Garden composition
16. Which plant part is primarily responsible for photosynthesis?
- a. Root
 - b. Stem
 - c. Leaf
 - d. Flower
17. In terms of landscape aesthetics, what is the purpose of using contrasting plant textures?
- a. To add visual interest and variety
 - b. To reduce maintenance
 - c. To increase plant growth
 - d. To decrease watering needs
18. Which type of soil is best for growing most garden plants?
- a. Sandy soil
 - b. Clay soil
 - c. Loamy soil
 - d. Peaty soil
19. The best time to plant a tree for optimal growth is:
- a. In the middle of summer
 - b. During the first frost of the year
 - c. During peak flowering season
 - d. In early spring or late fall
20. Which landscaping feature helps to define outdoor spaces and create a visual boundary?
- a. Wall
 - b. Waterfall
 - c. Garden bed
 - d. Sculpture
21. A common pest control method that involves using beneficial insects is known as:
- a. Chemical control
 - b. Mechanical control
 - c. Biological control
 - d. Cultural control
22. The characteristic that distinguishes succulents from other plants is:
- a. Their rapid growth rate
 - b. Their vibrant flower colors
 - c. Their preference for full shade
 - d. Their ability to store water in leaves

23. Which type of plant arrangement is designed to create a formal and symmetrical appearance?

- a. Classical garden
- b. Cottage garden
- c. Zen garden
- d. Wild garden

24. The main purpose of using landscape lighting is to:

- a. Increase plant growth
- b. Enhance safety and security
- c. Reduce water usage
- d. Improve soil quality

25. Which plant feature is most effective in attracting butterflies and bees?

- a. Brightly coloured flowers
- b. Dense foliage
- c. Fragrant leaves
- d. Spiny stems

26. A garden design that includes water features and aquatic plants is known as:

- a. Tropical garden
- b. Zen garden
- c. Water garden
- d. Herb garden

27. Which of the following is a common problem in greenhouse environments?

- a. Excessive sunlight
- b. High humidity
- c. Low temperatures
- d. Heavy winds

28. The primary function of the xylem in a plant is to:

- a. Transport water and nutrients from the roots to the leaves
- b. Store sugars and nutrients
- c. Provide structural support
- d. Carry out photosynthesis

29. The technique of creating a garden area that uses only native plants is called:

- a. Xeriscaping
- b. Permaculture
- c. Ecological gardening
- d. Sustainable landscaping

30. Which of the following is a key benefit of using ground covers in landscape design?

- a. Reducing soil erosion
- b. Increasing plant height
- c. Enhancing tree growth
- d. Providing shade

31. The ideal pH range for most garden plants is:

- a. 4.5-5.5
- b. 6.5-7.5
- c. 7.5-8.5
- d. 5.5-6.5

32. A plant known for its drought tolerance and ability to thrive in arid conditions is called:

- a. Xerophyte
- b. Hydrophyte
- c. Mesophyte
- d. Epiphyte

33. Which of the following is an example of a high-maintenance plant?

- a. Cactus
- b. Fern
- c. Lavender
- d. Aloe vera

34. The practice of rotating crops to maintain soil fertility and control pests is known as:

- a. Companion planting
- b. Interplanting
- c. Mulching
- d. Crop rotation

35. Which type of garden design is characterized by the use of geometric shapes and straight lines?

- a. Modern garden
- b. Rustic garden
- c. English garden
- d. Cottage garden

36. The term for a plant's ability to survive under low light conditions is:

- a. Light adaptability
- b. Sun resistance
- c. Shade tolerance
- d. Light sensitivity

37. Which method is used to ensure plants receive nutrients throughout the growing season?

- a. Fertilization
- b. Pruning
- c. Deadheading
- d. Mulching

38. The common term for a plant that has a limited growing season and requires replanting each year is:

- a. Perennial
- b. Annual
- c. Biennial
- d. Evergreen

39. The practice of planting trees and shrubs to create windbreaks is intended to:

- a. Enhance aesthetic appeal
- b. Increase soil fertility
- c. Provide additional shade
- d. Reduce wind speed and protect crops

40. Which feature is essential for a successful raised garden bed?

- a. Good soil drainage
- b. High walls
- c. Excessive water retention
- d. Shade

SSES Amt's Science College, Congress Nagar, Nagpur
 CERTIFICATE COURSE IN
 FLORICULTURE AND LANDSCAPING

74

Theory Examination based on M.C.Q. Type Questions

OMR SHEET

Date: 04/03/2020

Roll No.16.....

Signature of Coordinator ...*RA*.....

✓ TICK ON WRITE ANSWER (Dr. R.H. Mahakhede)
 (TIME- 1 HOUR)

QUESTION NO.	OPTIONS			
QUE. 1	a ✓	b	c	d
QUE. 2	a ✓	b	c	d
QUE. 3	a	b	c ✓	d
QUE. 4	a	b	c ✓	d
QUE. 5	a	b ✓	c	d
QUE. 6	a	b ✓	c	d
QUE. 7	a ✓	b ✓	c	d
QUE. 8	a	b	c ✓	d
QUE. 9	a	b	c	d
QUE. 10	a	b ✓	c	d
QUE. 11	a	b ✓	c	d
QUE. 12	a	b	c	d ✓
QUE. 13	a	b ✓	c	d
QUE. 14	a	b	c ✓	d
QUE. 15	a ✓	b	c	d
QUE. 16	a	b	c ✓	d
QUE. 17	a ✓	b	c	d
QUE. 18	a	b	c ✓	d
QUE. 19	a	b	c	d ✓
QUE. 20	a ✓	b	c	d
QUE. 21	a	b	c ✓	d
QUE. 22	a	b	c	d ✓
QUE. 23	a ✓	b	c	d
QUE. 24	a	b ✓	c	d
QUE. 25	a ✓	b	c	d
QUE. 26	a	b	c ✓	d
QUE. 27	a	b	c ✓	d
QUE. 28	a ✓	b	c	d
QUE. 29	a	b	c ✓	d
QUE. 30	a ✓	b	c	d ✓
QUE. 31	a	b	c	d
QUE. 32	a ✓	b	c	d
QUE. 33	a	b ✓	c	d
QUE. 34	a ✓	b	c	d
QUE. 35	a ✓	b	c	d
QUE. 36	a	b	c ✓	d
QUE. 37	a ✓	b	c	d
QUE. 38	a	b ✓	c	d ✓
QUE. 39	a	b	c	d
QUE. 40	a ✓	b	c	d

**Certificate Course Examination
Floriculture & Landscaping
Session-2019-2020**

Answer Key

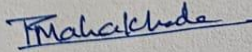
- | | |
|---|---|
| 1) a. Protecting the flower bud | 21) c. Biological control |
| 2) a. Cutting | 22) d. Their ability to store water in their leaves |
| 3) c. Sugar | |
| 4) c. Auxin | 23) a. Classical garden |
| 5) b. Angiosperms | 24) b. Enhance safety and security |
| 6) b. Fertilization | 25) a. Brightly colored flowers |
| 7) a. Create harmony and unity | 26) c. Water garden |
| 8) b. Prevent weed growth | 27) b. High humidity |
| 9) c. Umbrella tree | 28) a. Transport water and nutrients from the roots to the leaves |
| 10) a. Retaining wall | |
| 11) b. Oak tree | 29) c. Ecological gardening |
| 12) d. Winter | 30) a. Reducing soil erosion |
| 13) b. Reducing water waste by delivering water directly to the plant roots | 31) d. 5.5-6.5 |
| 14) c. Hedge | 32) a. Xerophyte |
| 15) a. Planting design | 33) b. Fern |
| 16) c. Leaf | 34) d. Crop rotation |
| 17) a. To add visual interest and variety | 35) a. Modern garden |
| 18) c. Loamy soil | 36) c. Shade tolerance |
| 19) d. In early spring or late fall | 37) a. Fertilization |
| 20) a. Wall | 38) b. Annual |
| | 39) d. Reduce wind speed and protect crops |
| | 40) a. Good soil drainage |

Shri Shivaji Education Society Amravati's Science College, Congress Nagar, Nagpur.

Department of Botany
Certificate Course
Floriculture and Landscaping
Session 2019-2020

Sr. No.	Roll No.		Surname	Name	Father Name	Marks		Total Marks	Grades
						Theory	Practical		
1		Ku	Aniqua	Ahmad	A	36	15	51	B
2		Ku	Atkare	Pallavi	S	58	14	72	A
3			Bawanakr	Swaraj	R	36	12	48	C
4		Ku	Bhalerao	Tejaswini	K	46	10	56	B
5		Ku	Bhosle	Gouri	A	60	14	74	A
6			Buche	Mohan	P	56	19	75	A
7		Ku	Chaurasiya	Sonu	V	42	19	61	B+
8		Ku	Chittalwar	Monali	V	44	16	60	B
9			Dani	Kaiwalya	P	58	13	71	A
10		Ku	Dixit	Pooja	P	44	12	56	B
11		Ku	Fuse	Swapnil	P	74	15	89	A+
12		Ku	Gaur	Prakruti	P	46	11	57	B
13			Hedao	Mukul	M	60	17	77	A
14		Ku	Sheikh	Tahrim	M	72	20	92	O
15		Ku	Shambahrkar	Ruchi	D	72	18	90	A+
16		Ku	Tayade	Pratiksha	R	74	15	89	A+
17		Ku	Tembhe	Snehal	R	46	11	57	B
18			Wairagade	Saurabh	V	60	17	77	A
19		Ku	Palsapure	Nidhi	L	72	20	92	O
20		Ku	Ramteke	Akshaya	G	72	18	90	A+
21			Ingole	Pranay	R	32	14	46	C
22			Jichkar	Adinath	J	78	15	93	O
23		Ku	Junankar	Astha	A	72	18	90	A+
24		Ku	Kalamkar	Vrushali	A	74	15	89	A+
25		Ku	Karemore	Harshada	B	46	11	57	B
26			Kumar	Avnish	R	60	17	77	A
27		Ku	Maheshwari	Sakshi	M	72	20	92	O
28		Ku	Meshram	Mrinali	A	42	19	61	B+
29		Ku	Meshram	Saloni	S	44	16	60	B

Sr. No.	Roll No.	Surname	Name	Father Name	Marks		Total Marks	Grades
					Theory	Practical		
30		Ku Mohadikar	Sanjana	R	58	13	71	A
31		Ku Salve	Raksha	R	44	12	56	B
32		Ku Sarak	Dhanashri	K	74	15	89	A+
33		Ku Satke	Prachi	K	46	11	57	B
34		Ku Tarale	Sahil	V	36	15	51	B
35		Ku Tarone	Chankya	V	58	14	72	A
36		Ku Thawkar	Sharannya	S	37	12	48	C
37		Ku Thorat	Saloni	S	46	10	56	B
38		Ku Tirpude	Shreyash	S	60	14	74	A
39		Ku Warkade	Vibha	D	36	15	51	B
40		Ku Lakudkar	Radhika	D	56	19	75	A
41		Lilhare	Sanjay	G	42	19	61	B+
42		Ku Mahant	Pranjali	A	44	16	60	B
43		Ku Manwatkar	Nidhi	D	60	14	74	A
44		Mhashakhatri	Tushar	D	56	19	75	A
45		Meshram	Chahak	G	42	19	61	B+
46		Ku Mohite	Sakshi	S	36	12	48	C
47		Ku Khatke	Anchal	D	46	10	56	B
48		Ku Kurhadkar	Divya	G	60	14	74	A
49		Ku Masram	Chankshi	K	74	15	89	A+
50		Ku Meshram	Vaishnavi	D	46	11	57	B
51		Ku Meshram	Rutuja	R	60	17	77	A
52		Ku Nitnaware	Pallavi	O	38	11	49	C
53		Ku Parekh	Honey	S	60	14	74	A
54		Parchake	Aniket	N	46	17	63	B+
55		Pashine	Bhuvan	S	38	15	53	B
56		Ku Patrale	Sakshi	V	46	11	57	B


 Dr. Rupali H. Mahakhode
 Course Coordinator
 Floriculture and Landscaping
 Assistant Professor
 Department of Botany
 SSES Amt's Science College
 Congress Nagar, Nagpur-440012

ACTION TAKEN REPORT

The Department of Botany successfully conducted a 10-week Certificate Course in "Floriculture and Landscaping" from 6th December 2019 to 21st February 2020, with 56 students participating. The course included weekly lectures, practical sessions, and workshops, covering a wide range of topics such as flower arrangement, bouquet making, and landscaping. Expert-led sessions by Mrs. Anju Parchure and Mrs. Harkare enhanced students' entrepreneurial skills, while a guest lecture by Mr. Amit Pophali provided insights into the practical applications of landscaping. Students actively engaged in competitions and a visit to the Biodiversity Park, further enriching their learning experience. The course concluded with both theoretical and practical examinations, assessing students on their acquired skills. Successful participants were awarded certificates, equipping them with the knowledge and skills to pursue careers or entrepreneurial ventures in floriculture and landscaping.



Dr. R.H. Mahakhode
Coordinator
Floriculture and Landscaping

FEEDBACK FORM

Sr. No.	Question	Response		
		Good	Better	Average
1)	How effectively did the course enhance your practical skills in floriculture and landscaping?			
2)	How would you rate the quality of the guest lectures?			
3)	How helpful were the hands-on activities?			
4)	Faculty support and guidance?			

R. Mahakhode

Dr. R.H. Mahakhode
Coordinator
Floriculture and Landscaping



Mahakhode
Dr. R.H. Mahakhode
 Coordinator
 Floriculture and Landscaping

Dr. Haldar
 Signature of IQAC Coordinator
 Internal Quality Assurance Cell
 (IQAC)
 S. S. E. S. A. Science College
 Congress Nagar, Nagpur



Mohore
 Signature of Principal
 Principal
 S. S. E. S. Amravati's
 Science College, Nagpur.



Shri Shivaji Education Society Amravati's
**SCIENCE COLLEGE, CONGRESS NAGAR,
NAGPUR**

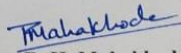
Accredited with CGPA of 3.51 at 'A+' Grade
A College with Potential for Excellence

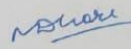


CERTIFICATE

Mr./Ku. Gowri A. Bhosle is awarded with certificate on successful completion of the course entitled, Certificate course in "Floriculture and Landscaping" Session 2019-20 under Add-on course conducted for 30 hours from 06/12/2019 to 21/02/2020 by Department of Botany, SSES's, Science College, Congress Nagar, Nagpur 440012.

He/She has passed the Examination with ' A ' Grade.


Dr. R. H. Mahakhode
Coordinator, Department of Botany


Prof. M. P. Dhore
Principal, Science College, Nagpur