

GOVERNMENT DEGREE COLLEGE

**DEPARTMENT
OF
BOTANY**

ADD ON COURSE ON

**NURSERY GARDENING
AND**

FLORICULTURE

2022-23



Government Degree College, Paderu
Affiliated to Andhra University
(Upgraded to Model Degree College under RUSA 2.0)
Paderu, Alluri Sitharama Raju -District, AP.



Est:1985 NAAC "C" Grade phone no: 08935 250013 Email.ID :Paderu.jkc@gmail.com.

Proposal for Certificate Course in

Nursery, Gardening and Floriculture

Academic year 2022 – 2023

From
The Course Coordinator
Dept of Botany
Govt Degree College
Paderu

To
The Principal
Govt Degree College
Paderu

Sir,

Sub: Proposal for starting Certificate Course in **Nursery, Gardening and Floriculture** in Botany to B.Sc., students of our college – Request regarding.

Our department of Botany is planning to start a certificate course in **Nursery, Gardening and Floriculture** to the students of B.Sc., groups choosing 35 among them. This course can enhance the skills of communication, personality development and disciplinary attitude of a student at professional areas.

In this regard we humbly request your esteemed self to conduct staff council meeting for discussing the syllabus and course outcomes.

Thanking you sir,

Name of the Certificate Program: **Nursery, Gardening and Floriculture**
Course Coordinator : Dr.S.Chandra Kala


Course Coordinator


Principal

Principal
Govt. Degree College
PADERU-531024
Alluri Sitharama Raju Dist..





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DEPARTMENT OF BOTANY

Detailed Objectives of 'Certificate Course in **Nursery, Gardening and Floriculture** for B.Sc.students

Title: Nursery, Gardening and Floriculture

Eligibility: all Under Graduate students of our college

Duration: 35 days / 1 hr daily

Syllabus: as given below

System of Assessment: internal

Introduction:

1. Certificate Course in **Nursery, Gardening and Floriculture**
2. Certificate Course in **Nursery, Gardening and Floriculture** Raising a nursery, managing it, studying and drawing various land scaping designs, practicing layering methods, using shade nets to protect horticultural crops, practicing indoor gardening techniques, visiting florists and recording their methods of prolonging vase life of commercial cutflowers.

Objectives:

1. Tools, implements and containers used for propagation and nursery techniques.
2. Propagation by cutting, layering, budding and grafting
3. Seed propagation- preparation of portable trays, seed treatments, sowing and seedling production.
4. Identification and description of annuals, herbaceous perennials, climbers, creepers, foliage flowering shrubs, trees, palms, ferns, ornamental grasses; cacti and succulents..
5. Planning and designing of gardens, functional uses of plants in the landscape
6. Preparation of land for lawn and planting.
7. Identification of commercially important flower crops and their varieties.
8. Propagation practices in flower crops, sowing of seeds and raising of seedlings of annuals.
9. Use of chemicals and other compounds for prolonging the vase life of cut flowers.
10. Grading, packing and marketing of cut flowers.
11. Visit to commercial nurseries and commercial tissue culture laboratory
12. Study project under supervision of lecturer – nursery/ornamental flowers/ plants/lawn designing/ landscape designing

S. Chandra Sekh
Course Coordinator

V. D. N.

Principal



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Detailed syllabus on **Nursery, Gardening and Floriculture.**

Unit I: Nursery:

1. Definition, objectives, scope and building up of infrastructure for nursery.
2. Planning and seasonal activities - Planting - direct seeding and transplants.
3. Nursery Management and Routine Garden Operations.

Unit II: Propagation methods

- 1 Sowing/raising of seeds and seedlings, transplanting of seedlings.
2. Air- layering, cutting, selection of cutting ,propagule collecting season, planting of cuttings -Hardening of plants.
3. Propagation of ornamental plants by rhizomes, corms tubers, bulbs and bulbils.
4. .Green house - mist chamber, shed root, shade house and glass house for propagation.

Unit III: Floriculture:

1. Ornamental Plants: Flowering annuals; herbaceous, perennials; Divine vines; Shade and ornamental trees.
2. Ornamental bulbous and foliage plants; Cacti and succulents, palms.
3. Cultivation of plants in pots; Indoor gardening; Bonsai.

Unit IV: Commercial Floriculture

1. Factors affecting flower production; Production and packaging of cut flowers; Flower arrangements; Methods to prolong vase life of flowers
2. Cultivation of Important cut flowers (Carnation, Aster, Dahlia, Gerbera, Anthuriums, Gladiolous, Marigold, Rose, Lilium)
3. Management of pests, diseases and harvesting.
4. Methods of harvesting.


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Course outcomes

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S. Chandra Sekh
Course Coordinator

V. A. S.
Principal

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DEPARTMENT OF BOTANY

Minutes of the Meeting

The following are the minutes of the meeting is held on 14.10.2022 for starting a certificate course in **Nursery, Gardening and Floriculture** for B.SC students for the academic year 2022-2023.

The following minutes have been discussed and resolved unanimously.

- 1.It is proposed to start a certificate course in **Nursery, Gardening and Floriculture** for the students of B.Sc during the academic year 2022– 2023.
- 2.It is proposed to endorse Dr.S.Chandra Kala as course coordinator.
- 3.It is suggested to the coordinator to enrol maximum number of students for the certificate course.
- 4.It is also discussed to use Virtual class room and other equipment to teach in an easyway.
- 5.It is also discussed how we can motivate the students towards the course.

Members of the committee during minutes

- 1.
- 2.
- 3.
- 4.

Course Coordinator



Principal

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DEPARTMENT OF BOTANY

Date: 20.10.2022

CIRCULAR

Sub: Certificate Program for the academic year 2022-2023

The Department of Botany is planned to conduct the certificate program for B.Sc students. The certificate course which are designed and offered by our department for the benefit of the students. Course will be conducted at free of cost and based on the performance of the participated students, the merit certificate will be issued after the successful completion of the course.

Students those who are willing to attend the certificate course can enrol their names to the course coordinator.

Name of the certificate Program : Nursery, Gardening and Floriculture.

Course Coordinator : Dr.S.Chandra Kala

Commencement of the course from 22.10.2022 to 30.11.2022

Time : 9.00 am to 10.00

S. Chandra Kala
Course Coordinator



V. Chandra
Principal
Principal
Govt. Degree College
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Name of the Certificate course: Nursery, Gardening and Floriculture

Course Coordinator: Dr.S.Chandrakala

Total Hours: 40 Hrs (Exempted sundays)

	Topic to be covered	Hours	Delivery date
1	Greetings and Introduction	6	I Week 22.10.2021
2	Nursery Introduction		
3	Definition, objective and infrastructure for Nursery		
4	Planning and seasonal activities		
5	Planting direct seeding and transplants		
6	Nursery Management	6	II Week
7	Air layering cutting, propagule collection		
8	Propagation of ornamental plants		
9	Green house mist chamber		
10	Flori culture, ornamental plants		
11	Cultivated crops	6	III Week
12	Indoor gardening, Bonsai		
13	Commercial floriculture		
14	Affecting flower production		
15	Grafting techniques		
16	Budding, Layering	6	IV Week
17	Cultivation of Cutflowers		
18	Cultivation of orchid plants		
19	Cultivation of croton plants		
20.	Cultivation techniques for succulents		
21.	Cultivation and cutting methods		
22.	Management of pests		
23.	Cultivation of gineya flower plants		
24.	Cultivation of Medicinal plants	6	V Week
25.	Cultivation of Ornamental plants		
26.	Design and cutting of Garden plants		
27.	Transplantation of plants		
28.	Outlines of vegetative propagation techniques		
29.	Sowing methods of seeds and plant material		
30.	Seasonal activities and routine operations in a nursery	6	VI Week
31.	Watering, weeding and nutrients		
32.	Online nursery information and sales systems		
33.	Nursery Beds preparation		
34.	Marketing		
35.	Exam		

S. Chandrakala
Course Coordinator

 Date :

V. A. A
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Certificate program Assessment test

Name of the course: Nursery, Gardening and Floriculture

Date: 1-12-2022

Academic year: 2022-2023

Time: 1.30 hrs

PART-A

I Answer the Multiple choice questions. 25x2=50

1. Cuttings are made from
 - A) Stems and leaves
 - B) Rhizomes and bulbs
 - C) Rhizomes and bulbs
 - D) All of the above
2. is/are raised by layering
 - A) Carnation
 - B) Crysanthemum
 - C) Both A and B
 - D) All of the above
3. Factors not considered for establishing a nursery is/are
 - A) Soil type and soil PH
 - B) Location and area
 - C) Germplasm and skilled persons
 - D) All the above
4. Which propagation method is seldom used in propagation of ornamental plants
 - A) Cutting
 - B) Grafting
 - C) Budding
 - D) Division
5. Establishment of a lawn focuses heavily on
 - A) O₂
 - B) NADH
 - C) SO₂
 - D) H₂O
6. Flower bracts are
 - A) Modified leaves
 - B) Modified flowers
 - C) Modified stem
 - D) All of the above
7. Wintering is used to
 - A) provide low temperature
 - B) Induce flowering
 - C) Both a and b
 - D) None of the above

8. Harvesting stages of vanilla is
A. Tender
B. Immature
C. Both a and b
D. Fully mature
9. Flowering colour of vanilla planiflora is
A. Pink
B. White
C. Yellow
D. Creamy white
10. Wintering is used to
A. Provide low temperature
B. Induce flowering
C. Both a and b
D. none of the above
11. The best kind of soil to plant flowers in is
A. Sand
B. Silt
C. Clay
D. Loam
12. Soil structure refers to
A. The components of the soil
B. the arrangement of soil particles
C. Both a and b
D. The size of the soil particle
13. A chemical disinfectant used to clean benches, pots and watering device is
A. Clorox
B. Malathion
C. Off-shoot-O
D. None of the above
14. Honeydew on the leaves and ants crawling around a plant indicate
A. Slugs
B. Aphids
C. Thrips
D. Fungus
15. Fertilization in a flower takes place when
A. Pollen grain touches the stigma
B. Pollen grain touches the ovary
C. Pollen is released from the flower
D. a Sperm and egg unite
16. If a flower arrangement appears to be ready to fall over, it lacks
A. Balance
B. focus
C. rhythm
D. harmony
17. A flowering pot marketing throughout the year is
A. poinsettia
B. Easter lily
C. Geranium
D. Chrysanthemum
18. The word photoperiod has to do with light
A. Quality
B. Duration
C. Intensity

D.Food candles

19.A pathogen is

- A.Nutritional disorder
- B.Genetically inherited disorder
- C.Special propagation technique
- D.Microorganism that cause a diseases

20.The showy red,pink or white portion of the ponisetia are

- A.Flowers
- B.bracts
- C.petals
- D.sepals

21.Flowers which are worn by men and pinned on a lapel are called

- A.Falcon corsage
- B.Hand-tied bouquet
- C.Boutonnieres
- D.Potpourri corsage

22.Most indore foliage plants need which kind of lighting

- A.direct sunlight
- B.bright light
- C.bright indirect light
- D.medium light

23.Carbondioxide enrichment in greenhouses is used to

- A.Decrease plant water uptake
- B.Combat insects
- C.increase production
- D.Maintain a healthier work environment

24.Food is translocated in plants through a tissue called the

- A.Phloem
- B.Xylem
- C.Cambium
- D.Cortex

25.If a hue is diluted with grey, the resulting colour is called a

- A.tone
- B.Shade
- C.tint
- D.Value

S. Chaudhary
Course Coordinator



V. Ch
Principal

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DEPARTMENT OF BOTANY

Test Analysis Report

Name of the course: **Nursery, Gardening and Floriculture.**

Name of the Course Coordinator: **Dr.S.Chandrakala** Academic Year: **2022-2023**

The Department of Botany offered Certificate course to students of all disciplines. We provided a syllabus to the students and covered all of the syllabus. The overall course duration was 40hrs and the attendance of the students was recorded.

I confirmed that all the students for this certificate course actively attended and performed well. We conducted an exam and the eligible students received certificates.

S. Chandrakala

Course coordinator



V. A.

Principal

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Name of the certificate course: NURSERY, GARDENING AND FLORICULTURE

Course co-coordinator: Dr. S. Chandra kala Academic Year: 2022-2023

BOTANY: NURSERY GARDENING & FLOURICULTURE

LIST OF WILLING STUDENTS

SL. NO.	HALL TICKET NUMBER	NAME OF THE CANDIDATE	GROUP
1	720125405003	B. SANKAR NARAYANA	III MPC
2	720125405010	G. BHASHA BABU	III MPC
3	720125405016	K. RAMA CHANDAR NAIDU	III MPC
4	720125405023	K. SIVA GANESH	III MPC
5	720125405029	P. PREM KUMAR	III MPC
6	720125405036	V. ASWINI	III MPC
7	720125405045	G. JAGADEESH	III MPCs
8	720125405051	K. TRINADH	III MPCs
9	720125405059	M. MUKESH KUMAR	III MPCs
10	720125405067	P. PURNA CHANDRUDU	III MPCs
11	720125405073	S. SAI SUNANDA	III MPCs
12	721125405003	B. RAMA KRISHNA	II MPC
13	721125405011	K. CHINA RAYUDU	II MPC
14	721125405018	K. PRADEEP	II MPC
15	721125405024	K. DHANA LAKSHMI	II MPC
16	721125405030	M. HEMANTH PRASANNA KUMAR	II MPC
17	721125405036	R. ARUN KUMAR	II MPC
18	721125405042	S. CHANDU	II MPC
19	721125405049	B. DIVYA VENI	II MPCs
20	721125405057	J. DURGA PRASAD	II MPCs
21	721125405064	K. DEENA	II MPCs
22	721125405070	M. PUSHPA RAJ	II MPCs
23	721125405078	P. SATYANARAYANA	II MPCs
24	721125405086	V. INDU	II MPCs
25	721125405194	B. KONDA BABU	II MP WEB TECH
26	721125405204	M. MAHENDRA BABU	II MP WEB TECH
27	721125405212	T. VISALAKSHI	II MP WEB TECH
28	720125405076	B. PUSHPANJALI	III CBZ
29	720125405082	G. CHANDRA SEKHAR NAIDU	III CBZ
30	720125405088	K. DEVID RAJU	III CBZ
31	720125405095	P. MATYA RAJU	III CBZ
31	720125405102	S. JAGAN	III CBZ
32	720125405108	U. BANGARU BABU	III CBZ
33	720125405114	A. UMA MAHESWARI	III BZH
34	720125405120	G. RAM MURTHY	III BZH
35	720125405126	K. NAYOMI	III BZH
36	720125405132	M. MOUNIKA	III BZH
37	720125405139	P. LOVATHALLI	III BZH
38	720125405145	T. SURYA VAMSI	III BZH
39	721125405088	A. MOHANA KRISHNA	II CBZ
40	721125405095	G. MANOHAR JOSEPH VARMA	II CBZ
41	721125405101	K. VEENA	II CBZ
42	721125405107	M. BHAVANA	II CBZ
43	721125405113	P. ANJI	II CBZ
44	721125405119	P. KALAVATHI	II CBZ
45	721125405126	T. YERNI BABU	II CBZ
46	721125405132	A. RAJENDRA PRASAD	II BZH
47	721125405138	B. KARTHIK	II BZH
48	721125405144	G. SWAPNA	II BZH
49	721125405150	K. SURI BABU	II BZH
50	721125405156	K. CHANDINI	II BZH



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51	721125405162	M. SURESH KUMAR	II BZH
52	721125405168	P. SUREKHA	II BZH
53	721125405174	S. PANDIT KUMAR	II BZH
54	721125405181	SK. NAGUR BEEBI	II BZH
55	721125405188	V. SUMALATHA	II BZH
56	721125405220	K. HARI HARAN	II CB SEED TECH
57	721125405226	K. SRINU BABU	II CB SEED TECH
58	721125405232	O. AJAY KUMAR	II CB SEED TECH
59	721125405239	T. SATYAVATHI	II CB SEED TECH
60	120125403003	D. CHIRANJEEVI	III B.Com(GEN)
61	120125403010	K. CHANTI	III B.Com(GEN)
62	120125403016	K. MANI	III B.Com(GEN)
63	120125404003	B. VARAPRASAD	III B.Com (VOC)
64	120125404009	G. PIUSHPA RAJU	III B.Com (VOC)
65	120125404016	K. VARALAKSHMI	III B.Com(VOC)
66	120125301004	B. MAHESH	III HEP
67	120125301010	B. DIVAN KUMAR	III HEP
68	120125301016	G. SURESH	III HEP
69	120125301075	B. SAI KUMAR	III SPL. ENG
70	120125301081	G. SOVENDRA	III SPL. ENG

S. Chaitanya
Course coordinator

V. Chaitanya
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Department of Botany

Academic Year-2022-23

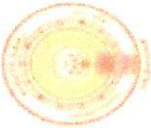
COURSE: Nursery Gardening & Floriculture

Attendance

From: 22-10-2022 to 30-11-2022

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[illegible]

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CERTIFICATE OF COMPLETION

This to certify that SALEBU DIVYA BHARATHI
Regd.No 720125405142 of GOVERNMENT DEGREE COLLEGE, PADERU has completed
his/her one month CERTIFICATE COURSE on "**NURSERY GARDENING AND FLORICULTURE**" organised by
the **DEPARTMENT OF BOTANY (2022-2023)**

The overall performance of an INDIVIDUAL during his /her ENTIRE COURSE is found to be-----(Satisfactory/ Not
satisfactory).

S. Chandra Sekh
COURSE COORDINATOR



V. V.
Principal
Govt. Degree College
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PRINCIPAL
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