



Establishment  
27/11/1928

## SNJB (Jain Gurukul's)

**K.K.H. Abad Arts, S.M.G. Lodha Commerce & S.P.H. Jain Science College  
Neminagar, Chandwad-423101, Dist.-Nashik, Maharashtra**

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(Affiliated to Savitribai Phule Pune University) Id. No.PU/NS/AC/015/1970

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(02556) Off. 252125 Res.252126 Tel. Fax:02556-252125

• P. O. Box No.: 6 • E-mail : [alccchandwad@yahoo.co.in](mailto:alccchandwad@yahoo.co.in)

• Website : [www.acschandwadcollege.com](http://www.acschandwadcollege.com)

DST-FIST Funded (2018-19)

UGC-NSQF Courses (B.Voc. & CC)

Best College Award by Savitribai Phule Pune University (2015-16)

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### **List of Documents: T.Y.B.Sc. Botany Field Visit**

<b>Sr. No.</b>	<b>Document Name</b>	<b>Page No.</b>
01	Syllabus Copy	02-03
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- iii) T. S. of leaf (permanent slide), iv) Morphology of male cone
- vi) Morphology of female cone
- vii) V. S. of mature ovule
- 3. Study of at least any eight families as per theory course (3P)
- 4. Identification of plants with the help of regional/local/suitable flora. (1 P)
- 5. Preparation of an artificial key based on multiple characters/ androecium/gynoecium/ vegetative characters (at least two keys) (1P)
- 6. Study of the following with the help of slides and/ or specimens.
  - i) Impression ii) Compression iii) Petrification iv) Coal ball v) *Rhynia*
  - vii) *Lyginopteris* viii) *Pentoxylon* ix) *Nipaniophyllum* x) *Lepidodendron*

**Paper –IV BO.335: HORTICULTURE AND FLORICULTURE**

T.Y. B.Sc.

**Chapter 1 Horticulture- Introduction 4L**

Definition, branches, scope and economic importance of horticultural crops, export and import potential of horticultural crops, Horticultural zones of India and Maharashtra, Global and national scenario of horticulture

**Chapter 2 Horticultural Plants 4L**

Nutritive value of fruits and vegetables, Classification of horticultural crops, Classification of Vegetables, Fruits, Ornamental plants, Spices and Flowers

**Chapter 3 Horticulture- Methods of Plant Propagation 6L**

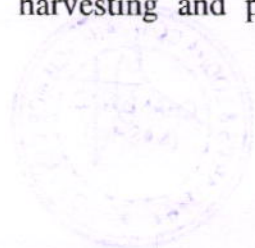
- A. Sexual propagation- importance, seed viability and treatments
- B. Artificial Vegetative Propagation – Importance, Methods- cutting. Layering, grafting and budding.
- C. Physiological and Anatomical basis of rooting
- D. Role of growth regulators in horticulture

**Chapter 4 Special Practices in Horticulture 6L**

Training and Pruning- objectives, types, systems of trainings  
 Fruit crops- Special practices like Bahar treatment, Girdling, Notching, Ringing, Bending, Vegetable crops special practices- Earthing up, Staking, Blanching

**Chapter 5 Fruits and Vegetables Production Technology 8L**

Introduction, soil and climate requirements, commercial varieties, special practices- harvesting and post harvest management, plant protection methods of following





Fruits- Banana, Mango, Vegetables- Tomato, peas, Beans

**Chapter 6 Ornamental Horticulture**

**5L**

Introduction, Origin and History of Gardens, Famous Indian Gardens, Gardening styles- English garden, Italian Garden, Mughal Garden, Japanese garden, Landscape gardening

**Chapter 7 Floriculture**

**8L**

Introduction, Concept, Definition, Scope and Importance of floriculture, Important floriculture crops and methods of cultivation for cultivation of Aster, Gladiolus, Orchids, Tagetus

**Chapter 8 Flower Industry**

**7L**

**A- Dry Flowers** - Introduction, Indian market of dry flowers, Selection of material, Techniques of drying- Air drying, sun drying, press drying, dessicants, oven and microwave drying methods. Preservation methods, bleaching, dyeing and painting, storage , care of dried flowers, etc.

**B- Cut Flowers** – Introduction, Species and cultivars of Orchids, **Anthuriums** and **Heliconias**, Harvesting - Techniques, mode of harvesting, post harvest handling- conditioning , precooling, pulsing and impregnation, grading, bunching, wrapping packing and cold storage of cut flowers, Indian market of Cut flowers

**Practicals**

1. Phenology of any two of each: fruit, vegetables and flowering crops
2. Study of garden tools and implements- Sprayer, Duster, Pruning knife, Sprinkler, Micro-irrigation system,
3. Study of garden containers and filling of pots and pits and plantation any one plants of each fruit, vegetable and flowering crops
4. Study of cutting, layering, budding and grafting
5. Study of technique of training and pruning
6. Methods of harvesting of cut flowers and their preservation methods
7. Methods of making dry flowers

- Visit to any one Nursery unit, Commercial Orchards, fruit market, floriculture

**Industry and submission of report in Practical Examination**

**Reference Books-**

1. Horticulture: V. L. Sheela, MJP Publications





Shri Neminath Jain Brahmacharyashram (Jain Gurukul's)



**KARMVEER KESHAVLALJI HARAACHANDJI ABAD ARTS,  
SHRIMAN MOTILALJI GIRIDHARILALJI LODHA COMMERCE & SHRIMAN P. H. JAIN SCIENCE (SR.)  
AND SHRIMAN PEMRAJAJI DALICHANDJI SURANA ARTS, COMMERCE & SCIENCE (JR.) COLLEGE**

**NEMINAGAR, CHANDWAD - 423 101 (DIST. NASHIK)**

☎ : (02556) Off. 252125 Tele Fax : (02556) 252125  
P. O. Box No. 6 E-mail : alccchandwad@yahoo.co.in

Junior College Code No. 13.01.002  
Senior College Code No. 088

**SNJB**

(Affiliated to University of Pune) Id. No. PU/NS/AC/015/1970

Website : acschandwadcollege.com (NAAC - RE-ACCREDITED - 'B')

**Best College Award - 2015-16 of Savitribai Phule Pune University, Pune**

**Dr. G. H. Jain**  
Principal

M.Sc., A.D.C.S.A & A, Ph.D.  
Member - B.O.S. (Physics) University of Pune

Outward No. : 647/ALJC/2018-19

Date : 18 / 01 / 2019

To

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\_\_\_\_\_  
\_\_\_\_\_

**Subject- To avail concession for the educational tour**

Sir,

With reference to the subject cited above, as per the curriculum of Savitribai Phule Pune University Pune for T.Y.B.Sc. Botany; it is compulsory to visit Biodiversity rich places for study. In this regard we have planned tour of T.Y.B.Sc. On Last week of January at Shivaji University, Kolhapur and MBRI, Ratnagiri. 30 Students and 05 faculty members are participating in the tour.

List of Staff and Students enclosed herewith for your kind information.  
Kindly allow for concession and do the needful.

Thanking You.

Yours Faithfully

Head,

Department of Botany





Shri Neminath Jain Brahmacharyashram (Jain Gurukul's)



स्थापना  
१७/११/१९२८

**KARMVEER KESHAVLALJI HARAKCHANDJI ABAD ARTS,  
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Outward No. : 647/ALJC/2018-19

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To

Hon. Administrative Officer,

Shree Neminath Jain Brahmacharyashram's,

College, Neminagar, Chandwad Dist. - Nashik-423101

Subject- To avail permission for the educational tour

Sir,

With reference to the subject cited above, as per the curriculum of Savitribai Phule Pune University Pune for T.Y.B.Sc Botany; it is compulsory to visit Biodiversity rich places for study. In this regard we have planned tour of T.Y. B. Sc students on 29/01/2019 to 31/01/2019 at Shivaji University Kolhapur and Ratnangiri. 30 Students and 05 faculty members are participating in the tour.

List of Staff and Students enclosed herewith for your kind information.  
Kindly avail the permission and do the needful.

Thanking You.

Yours Faithfully

*[Handwritten signature]*  
22-1-19



*[Handwritten signature]*

PRINCIPAL

K.K.H.A. Arts & SMGL Comm. & SPHJ  
Science (Senior) & S.P.D.S. Arts,  
Comm. & Science (Junior) College,  
Chandwad, Dist. Nashik - 423 101





Shri Neminath Jain Brahmacharyashram (Jain Gurukul's)

**Karmveer Keshavlalji Harakchandji Abad Arts,  
Shriman Motilalji Giridharilalji Lodha Commerce  
& Shriman P. H. Jain Science College**

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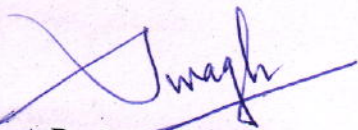
To,  
Head,  
Dapoli Krushi Vidyapith, Ratnangiri.

Subject: To avail permission for 'Dapoli Krushi Vidyapith' visit.

Respected Sir,

As per the curriculum of Savitribai Phule Pune University, T.Y.B.Sc Botany students will visit Dapoli Krushi Vidyapith on 30<sup>th</sup> and 31<sup>st</sup> January 2019. Please permit for the visit. There are total 31 students and 6 staff members.

Thanks and Regards.

  
Asst. Prof. Swapnil D. Wagh  
Tour Incharge



Dr. Manoj T. Patil  
**HEAD**

Department of Botany  
SNJB's K.K.H.A.Arts, S.M.G.L. Commerce  
& S.P.H.J. Science College,  
Chandwad-423 101 Dist-Nashik







स्थापना  
१७/११/१९२८

श्री नेमिनाथ जैन ब्रह्मचर्याश्रम (जैन गुरुकुल) संचलित,

कर्मवीर केशवलालजी हरकचंदजी आबड कला, श्रीमान मोतीलालजी गिरीधारीलालजी लोढा  
वाणिज्य व श्रीमान पी. एच. जैन विज्ञान महाविद्यालय

नेमिनगर, चांदवड - ४२३ १०१ जि. नाशिक

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डॉ. जी. एच. जैन,  
प्राचार्य

"उत्कृष्ट महाविद्यालय पुरस्कार २०१५-१६ सावित्रीबाई फुले पुणे विद्यापीठ, पुणे

M.Sc., A.D.C.S.A & A, Ph.D.  
Member - B.O.S. (Physics) University of Pune

जावक क्र. :

दि. / / २०१

To,  
Rector,  
Dapoli Krushi Vidyapith, Dapoli.

Subject - Permission for accommodation in Hostel.

Respected Sir,

We are going to visit your campus in next week, we want an accommodation for students and staff in your Hostel / Guest House at 30 January 2019. Number of Students - 26 Girls, 05 Boys, 02 Ladies Staff, 03 Gents Staff.

Thanks and Regards.

Asst. Prof. Swapnil D. Wagh  
Tour Incharge

Dr. Manoj T. Patil  
HEAD

Department of Botany  
SNJB's K.K.H.A.Arts, S.M.G.L. Commerce  
& S.P.H.J. Science College,  
Chandwad-423 101 Dist-Nashik







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१७/११/१९२८

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Date : 18 / 01 / 2019

To,  
Head,  
Department of Botany,  
Shivaji University, Kolhapur.

Subject: To avail permission for Departmental & Lead Botanical Garden visit.

Respected Sir,

As per the curriculum of Savitribai Phule Pune University, T.Y.B.Sc Botany students will visit your Botany Department and Lead Botanical Garden on 29<sup>th</sup> January 2019. Please permit for the visit. There are total 31 students and 5 staff members.

Asst. Prof. Swapnil D. Wagh  
Tour Incharge

Thanks and Regards.

**Dr. Manoj T. Patil**  
**HEAD**

Department of Botany  
SNJB's K.K.H.A.Arts, S.M.G.L. Commerce  
& S.P.H.J. Science College,  
Chandwad-423 101 Dist-Nashik





## LIST OF STUDENTS

Sr. No	Students Name	Gender	Mob No
1	KUMBHARDE RITU DILIP	FEMALE	9607374392
2	BIDGAR RAMESHWAR RATAN	MALE	8999935477
3	MORE PALLAVI RAJARAM	FEMALE	9067842936
4	ZALTE ATUL BHASKAR	MALE	8087481235
5	PAWAR SHANKAR DATTU	MALE	8554850399
6	SHINDE KIRAN DATTU	MALE	9049422970
7	THAKARE SUDHIR BABAJI	MALE	9673986356
8	JEUGHALE GAYATRI NIVRUTTI	FEMALE	9604171600
9	PAGAR MINAKSHEE RAJARAM	FEMALE	9881564006
10	LOKHANDE ARCHANA GHANSHAM	FEMALE	9763165729
11	GANGURDE POONAM BABAJI	FEMALE	9503474078
12	DEORE PRAJAKTA TRAMBAK	FEMALE	8805631530
13	AWARE VANITA SURYBHAN	FEMALE	8698792971
14	SANAP RUTUJA RAJARAM	FEMALE	9689957056
15	BORGUDE MADHURI VASANT	FEMALE	9075117174
16	BANKAR RANJANA SANJAY	FEMALE	9284889816
17	THAKARE ARCHANA BHARAT	FEMALE	8308544580
18	SHAINDE MAYURI DHYANESHWAR	FEMALE	9763562204
19	SONAVNE SHUBHANGI	FEMALE	9657301828
20	HANDGE SHITAL PUNJARAM	FEMALE	9764793237
21	SHINDE DIPALI KAILAS	FEMALE	9011026750
22	GUNJAL POOJA TULSHIRAM	FEMALE	7264902124
23	AHER MAYURI ARUN	FEMALE	9604600537
24	GANGURDE ARCHANA SANJAY	FEMALE	9850398241
25	KURNE NIKITA BALASAHEB	FEMALE	9373987103
26	MAHALE YOGITA DHANJAY	FEMALE	9423570955
27	WAGH VARSHA MANIK	FEMALE	7743428703
28	PAWAR JAYSHREE EKNATH	FEMALE	9423104722
29	DESHMUK MEGNA SUNUIL	FEMALE	9921796181
30	PAWAR YOGITA MOTIRAM	FEMALE	9359915401
31	VYAVAHARE DIPALI RAJENDRA	FEMALE	9175072074
	<b>FACULTY</b>		
1	Dr. MANOJ T.PATIL	MALE	7588797522
2	Asst. Prof. SWAPNIL D. WAGH	MALE	8275586567
3	Asst. Prof. KANCHAN S. THORAT	FEMALE	9156112837
4	Asst. Prof. SAGAR G. LOKHANDE	MALE	9766768355
5	Lab Asst. AVINASH E. GANGURDE	MALE	8329713571







Topic

Page

Date / /

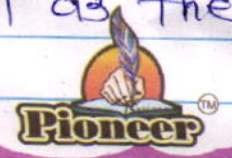
As per the savitribai phule pune university, the syllabus of T.Y. B.Sc, the Botany department conduct the tour academic year 2018-2019. under the syllabus of botany. for our this visit we choose the kolhapur university & other place also.

We start our journey 28-January 2019 at evening. kolhapur is the historic city is maharashtra. It is the district Headquarter of kolhapur district.

We visit the shivaji university. the university established in 1962 in kolhapur. the university campus is 853 acres. & is named after shivaji maharaj founder of maratha empire.

It was inaugurated on 18-Nov-1962 by J. P. P. Radhakrishnan. the president of India. We visit the botany department of the department of botany established in 1962.

We visit the botanical garden of university. this garden are placed of interest for local peoples as well as the researchers.







Botanical name - Avicennia dateba

Common name - gzeq mangrooves

Family - Acaothaceae

Importance - It occurs in intertidal zone of estuarine areas







Common name - Water snowflake

Botanical name - Nymphoides indica

Family - Menyanthaceae | Nymphadaceae

Importance - It is the aquatic flowering plants. The leaves can be up to 30 cm in diameter & take up speed of 150 cm per plant. The flowers are attractive, so they used in many purpose.







Common name - kailaspati

Botanical name - Couroupita guianensis

Family - Leguminosaceae

Importance - It's also called domestic fowl. There are many medical uses of plants.







Common name - Lady palm

Botanical name - Rhapsis excelsa

Family - Azaceae

Importance -

Rhapsis excelsa grows up to 4 m in height & 30 mm in diameter. It is multistemmed clumps with glossy pinnate leaves divided into broad segments. It is used in palm oil extraction.







Common name - Royal palm

Botanical name - Roystonea regia

Family - Palmae

Importance - palm which reaches a height of 20-30 m tall. the trunk stout, very smooth & grey white in colour. flowers are pinkish or red. the fruits are spheroidal to ellipsoid. the wood used in timber industry.







Common name - plam - sago palm ::

Botanical name - cycas . L

Family - cycadaceae

Importance - many cycads are used only as a famine food . for many culture they hold symbiotic / reverential status & are revered . they are used during ceremony & ritual . they are often highly prized & as ornamental used as bonsai .







Common Name - Anjeer

Botanical name - Ficus religiosa

Family - Moraceae

Importance -

Anjeer is good source of potassium. potassium is important mineral which is regulated for the body & its regular intake is said to be help in maintaining blood press. because it tends to negate harmful effect of sodium.







Common name - Oxalis

Botanical name - Oxalis corniculata

Family - Oxalidaceae

Importance - Oxalis is medium-sized wild edible weed that thrives in most areas across Canada.

Flower can be used for obtain the yellow dye.







Common name - Cassia

Botanical name - Cassia maxima

Family - Aztecaceae

Importance -

Antioxidant & anti-diabetic properties of Cassia Uguis flour.

Starch extracted from pith of Cassia known as Kithul flour & is claimed to have health benefits according to Ayurveda.







Common name - Christ palm

Botanical name - Euphorbia dillii

Family - Euphorbiaceae

Importance - In ancient time it symbolised goodness of victory.







Common name - Alplog

Botanical name - Alphisia purpurata.

Family - Zingiberaceae

Importance - they contain bioactive molecules  
pharmacological important.







common name - Camellia

Botanical name - Camellia japonica

family - Theaceae

Importance - It has major commercial importance, the tea plant. Tea is made from its leaves. It can be used for production of similar beverage.







Common name - Fan palm

Botanical name - Livistona chinensis

Family - Palmae

Importance - they are insect resistance.  
drought tolerance & self cleaning.











Common name → Euonymus

Botanical name → Euonymus japonicus

Family → Celastraceae.

Importance → salt tolerant golden euonymus  
there is locations with a segment exposure.







Common name - Bryophyllum

Botanical name - Bryophyllum pinnatum

Family - Celastraceae.

Importance - It is widely used in ayurvedic system of medicines as astringent, analgesic, carminative & also useful to diarrhoea & vomiting. It is reutilized throughout hot & post parturition.







Common name - shiodi

Botanical name - Phoenix roxburghii

Family - Arecaceae

Importance -

plant help in maintaining oxygen balance the most important gas that enable us to breathe







common name - Theyallis

botanical name - Theyallis gracilis

family - Malpighiaceae

Importance -

Extracted from a small evergreen shrub. It is used as medicine, galphimia treat asthma & allergies, also used as a homeopathic treatment of asthma.







Common Name - Anjeer

Botanical name - Ficus carerica

Family - Moraceae.

Importance - Anjeer is good source of potassium. potassium is an important mineral which required for body it maintain blood pressure.







Common name - Sago Cycad

Botanical name - Cycas revoluta

Family - Cycadaceae

Importance -

plants are used variously as the source of food material such as sago & seed starch vegetables cakes bread & poultry feed







Common name - Spoke bush

Bot. name - Cotinus coggiaea

Family - Anacardiaceae.

Importance -

It is tolerate light shade, but full sunlight brings out the colour of the foliage.

