

S-29 Nov., 2013 AC after Circulars from Circular No.55 & onwards

- 41 -

डॉ. बाबासाहेब आंबेडकर मराठवाडा विद्यापीठ, औरंगाबाद**परिपत्रक क्रमांक/एस.यु./विज्ञान/अभ्यासक्रम/७४/२०१४**

या परिपत्रकाद्वारे सर्व संबंधितांना सुचित करण्यात येते की, विज्ञान विद्याशाखेने शिफारस केल्यानुसार बी. एस्सी. / एम. एस्सी. प्रथम व द्वितीय वर्षाच्या सुधारित अभ्यासक्रमास आणि बी. एस्सी. प्रथम वर्षाच्या अभ्यासक्रमात किरकोळ बदल करण्यास विद्यापरिषदेच्या वतीने मा. कुलगुरु यांनी, त्यांना प्राप्त असलेल्या विशेष अधिकार महाराष्ट्र विद्यापीठ अधिनियम-१९९४ कलम १४(७) अन्वये मान्यता दिलेली आहे. त्या अनुषंगाने सुधारीत तयार केलेल्या अभ्यासक्रमाची प्रत या परिपत्रकासोबत आपल्या पुढील कार्यवाहीसाठी पाठविण्यात येत आहे.

[1]	B.Sc. Physics	Semester-III & IV,
[2]	B.Sc. Chemistry	Semester-III & IV,
[3]	B.Sc. Botany	Semester-III & IV,
[4]	B.Sc. Zoology with minor changes	Semester-I & II,
[5]	B.Sc. Zoology	Semester-III & IV,
[6]	B.Sc. Fisheries	Semester-III & IV,
[7]	B.Sc. Electronics (Opt.)	Semester-III & IV,
[8]	B.A./B.Sc. Mathematics	Semester-III & IV,
[9]	B.Sc. Computer Science	Semester-I & II,
[10]	B.Sc. Information Technology	Semester-I & II,
[11]	B.C.A.	Semester-I & II,
[12]	B.Sc. Computer Science(Opt.)	Semester-I & II,
[13]	B.Sc. Information Technology(Opt.)	Semester-I & II,
[14]	B.Sc. Computer Application(Opt.)	Semester-I & II,
[15]	B.Sc. Computer Maintenance(Opt.)	Semester-I & II,
[16]	B.Sc. Biotechnology (Progressively)	Semester-I to VI,
[17]	B.Sc. Biotechnology (Opt.) (Progressively)	Semester-I to IV,
[18]	B.Sc. Sericulture Technology	Semester-I & II,
[19]	B.Sc. Networking Multimedia	Semester-III & IV,
[20]	B.Sc. Bioinformatics	Semester-I & II,
[21]	B.Sc. Hardware & Networking	Semester-I & II,
[22]	B.Sc. Animation	Semester-I & II,
[23]	B.Sc. Dairy Science & Technology	Semester-III & IV,
[24]	B.Sc. Biochemistry	Semester-III & IV,
[25]	B.Sc. Analytical Chemistry	Semester-III & IV,
[26]	B.Sc. Textile & Int. Decoration with minor changes	Semester-I & II,
[27]	B.Sc. Textile & Int. Decoration	Semester-III & IV,
[28]	B.Sc. Home Science with minor changes	Semester-I & II,
[29]	B.Sc. Home Science	Semester-III & IV,
[30]	B.Sc. Agro.Chem. & Fertilizers	Semester-III & IV,

S-29 Nov., 2013 AC after Circulars from Circular No.55 & onwards

- 42 -

:: [2] ::

[31]	B.Sc. Geology	Semester-III & IV,
[32]	B.A. Statistics with minor changes	Semester-I & II,
[33]	B.A. Statistics	Semester-III & IV,
[34]	B.Sc. Statistics with minor changes	Semester-I & II,
[35]	B.Sc. Statistics	Semester-III & IV,
[36]	B.Sc. Industrial Chemistry	Semester-III & IV,
[37]	B.Sc. Horticultural	Semester-I & II,
[38]	B.Sc. Dry land Agriculture	Semester-I & II,
[39]	B.Sc. Microbiology	Semester-III & IV,
[40]	M.Sc. Computer Science	Semester-I to IV,
[41]	M.Sc. Information Technology	Semester-I to IV.

हा सुधारीत व नवीन तयार केलेल्या अभ्यासक्रमाचा आराखडा शैक्षणिक वर्ष २०१४-१५ करिता मर्यादित असेल व विद्यापरिषदेच्या अंतिम मान्यतेनंतर हे परिपत्रक नियमित ठेवण्याबाबत या कार्यालयाद्वारे नवीन परिपत्रक पारीत करण्यात येईल. तसेच सुधारीत व नवीन तयार केलेल्या अभ्यासक्रमाची प्रत विद्यापीठाच्या संकेतस्थळावर उपलब्ध आहे.

करिता, या परिपत्रकाची सर्व संबंधितांनी नोंद घ्यावी.

विद्यापीठ प्रांगण,
औरंगाबाद-४३१ ००४.
संदर्भ क्र.एस.यु./सा.शा./सबवि /२०१३-१४/
६५९९-७०२
दिनांक :- २७-०५-२०१४.

}}
}}
}}
}}
}}
}}


संचालक,
महाविद्यालये व विद्यापीठ
विकास मंडळ.

या परिपत्रकाची एक प्रत :-

- १) मा. परिक्षा नियंत्रक, परिक्षा विभाग,
 - २) मा. प्राचार्य, सर्व संलग्नीत महाविद्यालये,
 - ३) संचालक, युनिक यांना विनंती करण्यात येते की, सदरील अभ्यासक्रम विद्यापीठाच्या संकेतस्थळावर उपलब्ध करुण देण्यात यावेत.
 - ४) संचालक, ई-सुविधा केंद्र, विद्यापीठ परिसर,
 - ५) जनसंपर्क अधिकारी, मुख्य प्रशासकीय इमारत,
 - ६) कक्ष अधिकारी, पात्रता विभाग, मुख्य प्रशासकीय इमारत,
 - ७) कक्ष अधिकारी, बी.ए. / बी.एस्सी./ बी.सी.एस./एम.एस्सी. विभाग, परीक्षा भवन,
 - ८) अभिलेख विभाग, मुख्य प्रशासकीय इमारती मागे,
- डॉ. बाबासाहेब आंबेडकर मराठवाडा विद्यापीठ, औरंगाबाद.

**DR. BABASAHEB AMBEDKAR
MARATHWADA UNIVERSITY,
AURANGABAD.**



Revised Syllabus of

B.Sc. 1ST YEAR

SEMESTER-1ST & IIND

HORTICULTURE (optional)

[Effective from 2014-15 & onwards]

**DR.BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY,
AURANGABAD**

B.Sc I Year Horticulture Curriculum

(SEMESTER PATTERN)

Course structure

Class	Paper No	Title of Paper	Credits/Unit	Lectures	Marks
SEMESTER - I					
B.Sc	I	Elements of Horticulture	3	45	50
	II	Vegetable growing - I	3	45	50
	III	Practical based on paper - I & II	3	45	50
SEMESTER - II					
	IV	Ornamental horticulture	3	45	50
	V	Vegetable growing - II	3	45	50
	VI	Practical based on paper - IV & V	3	45	50

B.Sc I Year (Theory)

Semester –I

Paper – I

Elements of Horticulture

Unit – I

Lecture – 45

- 1.1 Introduction, Definition, Importance, Present status & Future Scope of Horticulture in Maharashtra/India (05)
- 1.2 Branches & Classification of Horticulture crops (03)
- 1.3 Nursery Management – Planning, General Nursery practices, Various nursery techniques (03)
- 1.4 Plant propagation – it's principles & Methods (04)

Unit – II

- 2.1 Sexual plant propagation - it's merits & demerits/seed germination seed dormancy it's factors, seed viability & longevity of ornamental crops (03)
- 2.2 Vegetative/ Asexual plant propagation – it's merits & demerits (02)
- 2.3 Method – Cutting, Budding, Layering, Grafting & it's factors (10)

Unit – III

- 3.1 Stock scion relationship – Effect of roots stock on scion, effect of scion on root stock (04)
- 3.2 Study of roots stock of various crops (04)
- 3.3 Micro – Propagation & importance of tissue culture in Horticulture crops (04)
- 3.4 Plant growth regulators its types & uses in Horticultural crops (03)

B.Sc I Year (Theory)

Semester –I

Paper – II

Vegetables Growing -I

Unit – I

Lecture – 45

- 1.1 Introduction,Importance & Scope of vegetable growing in Maharastra / India (02)
- 1.2 Introduction of exotic vegetables (02)
- 1.3 Problems& Practices of vegetable production in India (03)
- 1.4 Maximization of vegetable production (03)
- 1.5 Classification of vegetable crops (05)

Unit – II

- 2.1. Inter-cropping, relay cropping, mixed cropping, multiple cropping, companion cropping, rotation cropping & succession cropping. (05)
- 2.2. Types of vegetable gardening - Home/Kitchen gardening, commercila vegetable gardening market gardening, Truck gardening, Vegetable garden for seed production float vegetable grdening, vegetable gardening for processing (10)

Unit – III

- 3.1 Hi- tech Nursery management Practices & Transplanting (04)
- 3.2. Use of growth regulators in vegetable (04)
- 3.3. Mulching - its varous method & its roles in vegetable production (04)
- 3.4. Vegetable carving (03)

B.Sc I Year (Practical)

Semester -I

Paper VII (Based on paper No. I & II)

Mark – 50

1. Introduction & Identification of garden tools
2. Preparation of potting mixture, potting & repotting
3. Growing Plants in media like Soil, Sand, leaf, mould, Sphagnum moss, vermicompost & soil less culture
4. Preparation of nursery beds
5. Application & Methods of plant growth regulators
6. Types of Vegetative plant propagation.
 - a) Various methods of cutting
 - b) Various methods of laying
 - c) Various methods of budding
 - d) Various methods of grafting
7. Propagation by specialized structure - stems, roots, bulb, corm, tubers, tuberous root, rhizomes
8. Micro - Propagation
9. Identification & Classification of vegetable seeds
10. Preparation of raised & Flat beds for sowing of vegetable seeds
11. Study of various vegetable cropping methods.
12. Layout of planting of different vegetable
13. Layout of kitchen/ Float vegetable garden
14. Preparation of vegetable carving
15. Preparation of spawn for mushroom production
16. Visit to commercial nurseries

B.Sc I Year (Theory)**Semester –II****Paper – IV****Ornamental Horticulture****Unit – I****Lecture – 45**

- | | | |
|-----|---|------|
| 1.1 | Floriculture - definition, importance, scope of ornamental Horticulture | (05) |
| 1.2 | Classification of ornamental crops | (03) |
| 1.3 | Principles of garden design | (02) |
| 1.4 | Layout & types of garden : formal, informal | (05) |

Unit – II

- | | | |
|------|---|------|
| 2.1. | Study of garden feature : Flowering & Folli age trees | (05) |
| | Climbers and creepers | |
| | Hedges & edges | |
| | Arches & Pergolas | |
| | Roads, Topiary works | |
| | Setting arrangement | |
| | Lawn - various methods of planting & it maintenence | |
| 2.2. | Cultivation of importance crop : roses, Chrysanthemum, gladioulus, merigold, Jasmine, gaillardia, zinnia, aster, crossandra, lilies | (10) |

Unit – III

- | | | |
|------|---|------|
| 3.1 | Green house : definition, importance & scope | (02) |
| 3.2. | Types of green house & construction | (03) |
| 3.3. | Protective cultivation of importance crops : rose, gerbera, carnation, anthurium, orchids, etc. | (06) |
| 3.4. | Terarium, bonsai culture, flower arrangement, dry decoration | (04) |

B.Sc I Year (Theor)**Semester –II****Paper – V****Vegetables Growing -II****Unit – I****Lecture – 45**

- 1.1 Cultivation/raising of vegetables on basis of : History, origin, nutritive value, soil, climate, varieties, planting, manuring, irrigation, interculturing, plant, protection, use of growth regulators, harvesting, & yield, grading, packing storage, & marketing of following vegetables (05)
- 1.2 Fruits vegetables : Tomato, Chilli, Bhendi, brinjal (03)
- 1.3 Root vegetable : Carrot, Radish, beet-root, colocasia, yam etc (02)
- 1.4 Bulb, rhizomers & tubers : Onion, garlic, turmeric, potato, sweet potato etc (05)

Unit – II

- 2.1. Cucur bita ceouse vegetables : cucumber water melon, musk melon, pumpkin ridge gourd, bitter, gourd, bottle gourd, sponge gound etc. (04)
- 2.2. Leafy vegetables : spinch (palak), Methi, amaranthus, coriander, lettuce etc (04)
- 2.3. Pod vegetable : Pea, cluster bean, cowpea, sesbania (handga) Moringa (shevga)(04)
- 2.4 Cole crops : Cabbage, cauliflower, knol khol etc (03)

Unit – III

- 3.1 Protective cultivation of exotic vegetable Crops (05)
- 3.2. Mushroom production technology - its importance, type & methods of preparation (05)
- 3.3. Export management of vegetable crops (05)

B.Sc I Year (Practical)

Semester –II

Paper – VI (Based on paper No. IV & V)

Mark – 50

1. Introduction & Identification of ornamental crops & its importance
2. Identification & raising of seeds of seasonals in commercial importance
3. Layout of garden : formal & informal
4. Use of green house for nursery
5. Exhibition of cut flowers, Floral arrangement, garlands, & bouques
6. Collection & identification of insect, pest.
7. Preparation & maintenance of lawn
8. Preparation of terrarium
9. Method of seedling raising of various vegetables
10. Transplanting of vegetables crops
11. Irrigation layout for vegetables crops
12. Purning of vegetables
13. Mulching of vegetables
14. Harvesting & grading of vegetables
15. Packing, Stocking & Bundling of leafy vegetables
16. Study of growing of vegetables from planting to harvest.
17. Visit to important gardens.

**DR.BABASAHEB AMBEDKAR MARATHWADA
UNIVERSITY**

FACULTY OF SCIENCE

B.Sc. I & II Sememestr

Subject : - Horticulture

Paper : III, &VIth

Model Question Paper

Time : 3 hr

Marks 100

Q.1. Long Question OR 10

Short Notes (any two)

Q.2. Long Question OR 10

Short Notes (any two)

Q.3. Long Question OR 10

Short Notes (any two)

Q.4. Write short notes (any two) 10

a)

b)

c)

d)

Q.5. Multiple Choice 10

Question I to X

**DR.BABASAHEB AMBEDKAR MARATHWADA
UNIVERSITY**

FACULTY OF SCIENCE

B.Sc. I & II Sememestr

Subject : - Horticulture

Practical Examination

Paper :III, & VIth

Model Question Paper

Batch No _____ **Date** _____ **Time : 3 hr**

Center _____ **Mark 100**

Note : - Draw neat and well labeled diagrams wherever necessary.

Q.1. Describ and classify the given on naental/vegetable metrial A,B,C,D,&E

Q.2. A) Preparation of flat/Raised beds for sowing of seeds for given ornamenatal crops

B) Layout of package method (stocking / bunding) of given vegetable material

Q.3. A) Prepare a graft/layer by using material

B) Layout a plan of kitchen/float vegetable garden

Q.4. Spotting -5 Spots (Identify and comment) A,B,C,D,&E

Q.5. Submission

A) Submission of seeds and Herberium (ornamental /Vegetale)

B) Record Book & Visit Book

Recommended Books & Periodicals :

1. Propagation of Horticultural crops - Adriano & Brison, Tata-Mc Graw Hill.
2. Complete gardening in India - Gopalswami Iyenger, Hosali press Bangalore
3. Fruit Nursery in India L.Venketraman, Ministry of food, AGRI, New Delhi.
4. Seasonal flowers - Bharu L.Desai, ICAR Publication New Delhi.
5. Flowering of india - N.S. Randhawa
6. Flowering shrubs of India - N.S. Randhawa
7. Flowering climbers of India - N.S. Randhawa
8. The Rose B.PPal, ICAR Pub. New Delhi
9. Tropical planting and gardening - I.F.Mac Millan.
10. Vegetable crops in India K.S Yawalkar Agro Horticultural Society, Nagpur
11. Vegetable cultivation in India D.V.S. chavan
12. Vegetable B.Choudhary, National Book Trust, New Delhi.
13. Production & Marketing of vegetables - carrew, Heiley yeastern Pvt. Ltd.Delhi.
14. Hand Book of Vegetable - S.Ellinot John Willey & Sons Newyary (USA)
15. Vegetables science - Indian vegetable society, IARI pub New Delhi.
16. Vegetable production by T.K. Bose.

Periodicals : -

1. Indian Horticulture
2. Indian Journal of Horticulture
3. South Indian Journal of Horticulture
4. Panjab Horticulture Journal
5. Haryana Horticulture Journal