AC - 20/05/2025 Item No. - 8.4 (N) Sem IV 1(a)

## As Per NEP 2020

## University of Mumbai



| Syllabus for Basket of OE          |           |  |
|------------------------------------|-----------|--|
| Board of Studies in GEOGRAPHY      |           |  |
| UG Second Year Programme           |           |  |
| Semester                           | IV        |  |
| Title of Paper                     | Credits   |  |
| I) An Introduction to Horticulture | 2         |  |
| From the Academic Year             | 2025/2026 |  |

### Title of Paper: - An Introduction to Horticulture

| Sr.<br>No. | Heading   | Particulars  |  |
|------------|---|--|--|
| 1          | Description of the course :   | This course is designed to introduce the student to the basic concepts and skills utilized in horticulture. Students   |  |
|            | Including but not limited to :  | will receive an introduction to basic botanical concepts such as morphology, anatomy, taxonomy, physiology, genetics, and propagation as they apply to horticulture. |  |
| 2          | Vertical :  | Open Elective  |  |
| 3          | Type:   | Theory   |  |
| 4          | Credit:   | 2 credits (1 credit = 15 Hours for Theory)   |  |
| 5          | Hours Allotted :  | 30 Hours   |  |
| 6          | Marks Allotted:   | 50 Marks   |  |
| 7          | <ol> <li>Course Objectives: (List some of the course objectives)</li> <li>To provide foundational knowledge of horticulture.</li> <li>To develop skills in plant propagation techniques.</li> <li>To equip students with knowledge and practices related to resource management.</li> <li>To introduce the principles of landscaping and garden design.</li> </ol>  |  |  |
| 8          | Course Outcomes: (List some of the course outcomes) On successful completion of this course, students will be able to: 1. Understand the basic principles and technologies used in horticultural crop production. 2. Demonstrate knowledge of the principles and methods of plant propagation. 3. Apply water and weed control approaches to horticultural crops and analyse how they improve production and sustainability. 4. Design and create basic landscape features and garden layouts using site selection, soil preparation, lawn establishment and maintenance, and indoor gardening. 5. Start a nursery business and learn about budding and grafting. 6. Explain the importance of horticultural crops in the day-to-day life of human beings and its impact on the national economy. |  |  |
| 9          | Modules:- Per credit, one module can be created.  |  |  |
|            | Module 1: Basic Horticulture (15 hours)   |  |  |

- 1.1 Introduction to Horticulture: definition, scope, importance and branches.
- 1.2 Principles of Horticulture Crop Production Technology.
- 1.3 Principles of plant propagation, methods of propagation for horticultural crops.
- 1.4 Water management in horticultural crops, weed management in horticultural crops.

## **Module 2: Landscape Gardening (15 hours)**

- 2.1 Principles of landscaping, garden design and types.
- 2.2 Selection of site, preparation of soil for garden, lawn- method of preparation of lawn, management of lawn and lawn plants.
- 2.3 Indoor plants & indoor gardens-hydroponics, terrarium/ bottle garden. Dish garden.
- 2.4 Important garden features- lawn, flowerbeds, arches, fencing, water bodies, rock

|    | garden.  |   |  |
|----|--|---|--|
| 10 | Text Books:  |   |  |
|    | 1. Chattopadhyay, T.K. (2012). A textbook on Pomology, Vol. 1 (Fundamentals), Kalyani                |   |  |
|    | publishers, Ludhiana, India.,  |   |  |
|    | 2. Basic Horticulture (2013), Student Handbook, CBSE Delhi.  |   |  |
|    | 3. Bose, T. K., & Som, M. G. (1986). Introduction to horticulture (3rd ed.). Calcutta: Naya          |   |  |
|    | Prokash.   |   |  |
|    | 4. Kumar, N. (1997). Introduction to horticulture. Rajendranagar, Hyderabad: Rajalakshmi             |   |  |
|    | Publications.  |   |  |
|    | 5. Prasad, S. (2003). Introduction to horticulture. New Delhi: Agrobios (India).                     |   |  |
|    | 6. Chadha, K. L. (2001). Handbook of horticulture. New Delhi: Indian Council of Agricultural         |   |  |
|    | Research (ICAR).   |   |  |
|    | 7. Randhawa, G. S., & Mukhopadhyay, A. (1986). Floriculture in India. New Delhi: Allied              |   |  |
| I  | Publishers.  |   |  |
| 11 | Reference Books:   |   |  |
|    | 1. Singh, J. (2012). Basic Horticulture. Kalyani publishers, Ludhiana, India.,                       |   |  |
|    | 2. Bal, J.S. (2007). Fruit growing Kalyani Publishers, Ludhiana, India.                              |   |  |
|    | 3. Chadha, K.L. 2001. Handbook of Horticulture. Indian Council of Agricultural Research.  New Delhi. |   |  |
|    | 4. Sharma, R.R. 2002. Propagation of Horticultural Crops (Principles and practices).                 |   |  |
|    | 5. Kunte, Y.N., Kawthalkar, M.P.andYawalkar, K.S. 2005. Principles of Horticulture and               |   |  |
|    | Fruit Growing. Agri-Horticultural Publishing House, Nagpur.  |   |  |
|    | 6. http://www.angrau.ac.in   |   |  |
|    | 7. http://www.iihr.ernet.in  |   |  |
| 12 | Internal Continuous Assessment: 40%  | External, Semester End Examination                                |  |
|    |  | Individual Passing in Internal and                                |  |
|    |  | External Examination: 60%   |  |
| 13 | Continuous Evaluation through:   | Semester-End Examination of 30 Marks                              |  |
|    | Quizzes, Class Tests, presentations,   | This examination shall be of a 1-hour duration. Maximum marks 30. |  |
|    | projects, role play, creative writing,   | 2. There shall be two questions each of 15                        |  |
|    | assignments etc.( at least 3)  | marks.  |  |

# Internal Continuous Assessment of 20 Marks

- 1. One Assignment/Project work/Case study /Presentation /Seminar /Field visit report/Book review etc. to be conducted in the given semester before the Semester end examination. (Marks 10)
- 2. One online/ offline class test (Marks 5)
- 3. Active participation in regular class instructional deliveries and fieldwork. & Overall conduct as a responsible learner, mannerism and articulation and exhibit of leadership qualities in organizing environment-related activities (Marks 5)

3. All questions shall be compulsory with internal choice within the questions. (Each question will be of 15 marks with options.)

### 14 Format of Question Paper: for the final examination

Sd/-

- Q. 1. Based on Module 1 & 2 (15 Marks)
- Q. 2. Based on Modules 3 & 4 (15 Marks)

Sign of the BOS Chairman Dr. Rajaram B. Patil Board of Studies in Geography

Sd/-

Sign of the Offg. Associate Dean Dr. C.A.Chakradeo Faculty of Interdisciplinary Studies Sign of the Offg. Associate Dean Dr. Kunal Ingle Faculty of Interdisciplinary Studies

Sd/-

Sign of the Offg. Dean Prof. A. K. Singh Faculty of Interdisciplinary Studies

Sd/-