### The Kelkar Education Trust's

# V. G. Vaze College of Arts, Science and Commerce (Autonomous) - Affiliated to University of Mumbai

(Re-Accredited By NAAC with Grade A)

## Revised Syllabus for FYBSc Based on NEP-2020 Guidelines

Program: B.Sc.

**Course: BOTANY** 

**Semester IV** 

To Be Implemented From Academic Year 2024-25 S.Y.B.Sc (Botany) Semester: IV

**Open Elective- II** 

Course Title: Gardening and Landscape Designing

Course code: (Credits-04)

| Teaching<br>Scheme<br>(Hrs/Week) |  |   | ne | us Inter<br>marks | nal Ass | essmen | t (CIA) | ) 40 | End Semester<br>Examination | Total |
|----------------------------------|--|---|----|-------------------|---------|--------|---------|------|-----------------------------|-------|
| L                                | T  | P | С  | CIA-              | CIA-    | CIA-   | CIA-    | Lab  | Written                     |       |
| 3                                | -  | - | 2  | 15                | 15      | 10     | •       | -    | 60                          | 100   |
| N                                | Max. Time, End Semester Exam (Theory) -2Hrs. |   |    |                   |         |        |         |      |                             |       |

| Course Objectives:  |  |  |
|---|--|--|
| To understand the concept of different types of gardens and their importance. |  |  |
| To apply the basic principles and components of gardening                     |  |  |
| To design various types of outdoor gardens.                                   |  |  |
| To understand plant diseases and their management.                            |  |  |
| To understand neo avenues of application of technologies like hydroponics.    |  |  |

| <b>Course Outcomes:</b> After the successful completion of the course, Learners will be able to |  |  |
|---|--|--|
| Identify and distinguish between different types of outdoor plants.                             |  |  |
| Describe the cultural methods used for growing various outdoor plants                           |  |  |
| Acquainted with Nursery and green house development and management                              |  |  |
| Develop entrepreneurial skills of develop various types of outdoor gardens.                     |  |  |

## Title: Gardening and Landscape Designing

|     | Unit 1 – Introduction to Garden  | Credits:02 |
|-----|--|------------|
| 1.1 | Introduction of Garden, History and its Importance                           |            |
| 1.2 | Garden styles: Formal and Informal   |            |
| 1.3 | Garden features and plants: Lawns, Hedges, Edges, Flower bed. And Avenues.   |            |
|     | Unit 2 – Green house Technology, Nursery Development and Modern applications |            |
| 2.1 | Green house set up, Green house plants and their maintenance                 |            |
| 2.2 | Nursery development and management   |            |
| 2.3 | Hydrophonics: Methods of preparations, applications, Uses and benefits.      |            |

|     | Unit 3 – Propagation Practices and Organic fertilizers       |
|-----|--|
| 3.1 | Propagation and techniques: Cutting, Budding, Layering,      |
|     | Grafting.  |
| 3.2 | Biofertilizer: Sources, methods of preparations,             |
|     | applications/uses/Benefits.                                  |
| 3.3 | Vermicompost: Methods of preparation, applications, uses and |
|     | benefits.  |

#### **References:**

- 1. Bose TK, Maiti RG, Dhua RS and Das P. 1999. Floriculture and Landscaping. Naya Prokash.
- 2. Nambisan KMP.1992. Design Elements of Landscape Gardening. Oxford & IBH.
- 3. Randhawa GS and Mukhopadhyay A. 1986. Floriculture in India. Allied Publ.
- 4. Trivedi, PP.1983. Home Gardening. Statesman Press. New Delhi. India.
- 5. Sabina GT and Peter KV. 2008. Ornamental Plants for Gardens. New India Publ. Agency.
- 6. Woodrow MG.1999. Gardening in India. Biotech Books.
- 7. Arora, JS. 1999. Introduction to ornamental horticulture. Kalyani Publishers, Ludhiana, India.