

GLOSSARY

Acclimatisation: *it is the practice of withholding water a day or two before the actual transplanting operation to harden the seedlings.*

Annuals: *annuals are those plants which grow from a seed, flower and die within one year or one season.*

Antagonism: *the mechanism of limiting or controlling the growth of a microorganism through another microorganism is called antagonism.*

Aphids: *these are clustering creatures which suck the cell sap from young and tender plant parts, especially both the sides of tender leaves, shoot tips, buds and flowers.*

Arches: *arches are semi-elliptical or rectangular metallic entrances made over cemented pillars or walls and covered cum trained with beautiful climbers.*

Asokavanam: *it was a place or garden where royal ladies like queens and princesses used to relax.*

Balance: *it is the equalisation of visual weight from one area of a landscape composition to the other area.*

Bio-control or biological control: *when some living organisms (parasites or predators such as birds, rodents) or certain plant products are used to control the pests of a crop, it is called bio-pesticide, and the method is known as bio-control or biological control.*

Bio-fertilisers: *these are microorganisms which add, conserve and stimulate plant nutrients in the soil, some fixing atmospheric nitrogen symbiotically, and some convert insoluble phosphates to soluble phosphates in the soil.*

Bio-herbicides: *living organisms such as fungi, bacteria and insects are used to control weed population. Such herbicides are broadly known as bio-herbicides.*

Bird bath: *it is a bowl-shaped ornamental container which is filled with ample fresh water and kept at a quite elevated place for inviting birds in the garden.*

Cacti: *these are members of the cactaceae family with peculiar shape and size, and adapted for desert life.*

Carpet bedding: *it is planting of dwarf herbaceous plants in a bed or series of beds according to a set design.*

Climbers: *those plants which have special structures to climb on support for sunlight and air are defined as climbers.*

Creepers: *plants which are too weak to rise vertically above the ground on their own. Produce cluster of roots from the nodes which clasp on support as the shoots grow up.*

Depotting: *it is the removal of plants from pots for planting in the pot, soil or bed.*

Deshooting: *it is removal of all the side shoots (offshoots or offsets) emerging from the base of the plant.*

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Dibbling method: *it is a method of planting well-matured rooted or unrooted grass cuttings obtained from a close cut lawn or nursery for the establishment of a lawn.*

Dip method: *here cuttings before planting are dipped in the fungicidal solution for certain period.*

Disbudding: *it is the removal of floral buds when a large flower on a plant is desired.*

Disease: *any abnormality occurring in a plant due to pathogen is called a disease.*

Drainage: *drainage is the process of removing water from the soil that is more than the need of crop plants.*

Drip irrigation: *it is a drop by drop, slow but continuous watering directly to the root zone of the plant with full economy of water.*

Dust: *it is a dry formulation of pesticide with an inert carrier.*

Earthing up: *it is the technique in horticulture where soil is piled up around the base of a plant.*

Edge plants: *They are evergreen, low growing plants (20–25 cm), grown on the border of plot.*

First-aid: *assistance given to any person suffering from a sudden illness or injury.*

Floating plants: *these plants don't need hold or grip of soil (anchorage) for their survival.*

Floral clocks: *this is a huge clock operating by electricity having huge hands for showing the seconds, minutes and hours.*

Form: *it is a broad term showing two or three-dimensional structure and shape of an object or space.*

Galls or hypertrophied structure: *it refers to abnormal plant growth caused due to the infestation of insects and mites.*

Garden: *a garden is a planned space, indoors or outdoors, set for the display, cultivation and enjoyment of plants and other forms of nature.*

Green manure crops: *these are those crops which are knocked down in the field for decomposition just before the stage of maturation, such as sunnhemp or dhaincha.*

Hardy annuals: *they do not require artificial aid for their growth and flower freely in the open.*

Hedge plants: *the plants used for hedge making are called hedge plants.*

Hedge: *shrubs or small trees planted at regular interval to form a thick continuous screen is called a hedge.*

Herbaceous perennials: *these are those ornamental plants which have soft and succulent stems, and bear flowers year after year.*

Insects: *insects are the organisms belonging to division Insecta of animal kingdom, with three pairs of legs and two pair of wings.*



Integrated disease management (IDM): *it is the integration of various methods used for avoiding and controlling the diseases.*

Integrated weed management (IWM): *it involves the utilisation of both preventive and curative measures (exclusion, physical, cultural, chemical and biological methods) in well planned way for weed control.*

Irrigation: *replenishing the soil water deficit by applying water to the crop is called irrigation.*

Landscape gardening: *it is an aesthetic branch of horticulture which deals with the planting of ornamental plants in such a way that it creates a picturesque effect.*

Landscaping: *landscaping is the art of beautifying a piece of land using garden designs, methods and plant materials.*

Lawn: *a lawn can be defined as the green carpet for a landscape.*

Legislative method (Quarantine): *this is a method of preventing the introduction of new insect-pests from the exporting countries.*

Macronutrients: *those essential nutrient elements which are required in large quantity by the plants.*

Marginal plants: *these plants keep their roots in shallow water and aerial parts above the surface.*

Mites: *these are minute, yellow, rusty-green, red, black or brown spider-like eight legged creatures.*

Modern, picturesque, artistic or free type of gardening: *in this type of gardening, best features of both formal and informal types are selected to secure the most picturesque effect.*

Mowing: *it is the process of cutting down lawn grass with the help of a mower as grass in the lawn should not be allowed to grow more than 5–7 cm in height.*

Mulching: *it is the act of applying a 5–10 cm thick layer of covering material on the ground surface around the growing plants.*

Myco(fungi) herbicide: *when fungal spores or fungi are used to control the weeds, this is known as myco(fungi) herbicide.*

Nandanavana: *special gardens dedicated to Lord Krishna with water pools studded with lotuses and lilies.*

Non-selective: *these are the herbicides that prove lethal to almost all the monocots and dicots that come in their contact.*

Nutrients: *nutrients are the chemical elements which are absorbed by plants in small or large quantities to transform light energy into chemical energy for the synthesis of organic materials.*

Nutrition: *the essential nutrients required for normal metabolic activities in the body of an organism or plant is known as nutrition.*

Occupational hazards: *hazards experienced at the workplace.*

Oxygenators: *these are oxygenating plants which maintain hygiene and balance in a pool, and therefore are vital to any pool.*

NOTES

Perennial weeds: *these weeds complete their life cycle in more than two years.*

Perennials: *these are woody or non-woody plants which grow for more than two years.*

Pergola: *it is a series of arches joined together and covered with shading material or plants.*

Pinching (stopping): *it is the removal of growing tips of the terminal portion of plants to promote bushy growth for more lateral formation and precocious flowering.*

Post-emergence herbicides: *these are the herbicides which are applied after weeds have emerged.*

Potting: *potting refers to the planting of seedlings, polybag plants or any other plant uprooted from soil or growing media in pots containing potting mixture.*

Pramododyan: *it was a private garden for kings and queens exclusively.*

Pre-plant herbicides: *this is a group of herbicides applied before planting the main crop.*

Pricking: *the operation of transferring the young seedlings to another bed, pan or tray for better space, nutrients and light is called as pricking.*

Rambler or straggler: *it has neither special structure to climb up the support nor it coils around the support, but it climbs on its own.*

Repetition: *it is the use of an element in a design more than once in order to maintain unity, establishing rhythm and sequence, and pulling whole of the design together.*

Scrambler: *a plant that produces long weak shoots by which it grows over other plants.*

Selective herbicides: *these are the herbicides used against specific group of weeds, and do not prove harmful for other crops.*

Shrub: *a shrub is a woody or semi-woody perennial plant with little or no trunk and grows up to a height of 50 cm to less than five meters.*

Shrubbery border: *area of the garden devoted exclusively for growing shrubs planted in a row or in rectangular fashion.*

Side dressing: *It refers to the fertiliser being placed beside the rows of a crop (widely spaced), like maize or cotton.*

Soil drenching: *application of fungicide or nematicide to the soil for controlling soil-borne infection of fungi (wilt, damping off, root rot) or nematodes (root-knot).*

Solarisation: *it is the method of increasing soil temperature through absorption of sunlight, so that it destroys the seeds and other propagules of weeds, vis-à-vis harmful pathogens and insect-pests present in the soil.*

Sprinkler irrigation: *it is aerial watering of the crop or field with pressure through revolving sprinkler nozzles by the pipes fitted with*



stand. The nozzles revolve due to pressure of water and spread water in the form of thin spray.

Staking: *it is a practice to support the plants for growing straight and saving them from bending or lodging.*

Sub-shrub: *the plant whose basal portion is woody and the upper shoots are soft is called a sub-shrub.*

Succulents: *these are those plants which possess fleshy foliage or stems or both.*

Topiary: *the art of clipping and shearing climbers, shrubs, small trees and herbaceous perennials into various artistic shapes.*

Trailers: *these plants are like creepers but they lack the ability to root at their nodes.*

Transplanting: *transplanting is the operation of lifting the seedlings from nursery beds or pots and planting them to the permanent place already prepared.*

Turf: *turf is a piece of earth of about 5 cm thickness and 30 cm width with grass thickly grown over it.*

Turfing: *turfing is a method of using different turves and placing them in a well prepared soil like bricks in a wall.*

Twiner: *it is a plant which does not possess special structures to climb up the support but climbs by spiralling or coiling.*

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ANSWER KEY

Unit 1: Cultivation of Commercial Flower Crops—I

Session 1: Cultivation of China Aster

A. Fill in the Blanks

1. sandy loam, 6.8–7.5
2. 10–15, 120:80:120
3. garlands and worshipping
4. seed
5. 2.5–3.0

B. Multiple Choice Questions

1. (a) 2. (d) 3. (c) 4. (b) 5. (a)

D. Match the Columns

1. (d) 2. (e) 3. (a) 4. (b) 5. (c)

Session 2: Cultivation of Chrysanthemum

A. Fill in the Blanks

1. hand removal, 10–15 cm
2. fully open, central disc
3. queen of East or Autumn Queen
4. pompon and decorative
5. suckers and terminal

B. Multiple Choice Questions

1. (a) 2. (b) 3. (c) 4. (d)
5. (a) 6. (b)

D. Match the Columns

1. (b) 2. (a) 3. (c) 4. (d)

Session 3: Cultivation of Tuberose

A. Fill in the Blanks

1. bulbs and bulblets
2. 2–3
3. 15–30
4. 3 to 4
5. spindle

B. Multiple Choice Questions

1. (d) 2. (a) 3. (a) 4. (b) 5. (c)

NOTES

D. Match the Columns

1. (g) 2. (f) 3. (e) 4. (d) 5. (c)
6. (b) 7. (a)

Session 4: Cultivation Technique of Gladiolus

A. Fill in the Blanks

1. Gladiolus
2. corms or cormlets
3. 1000
4. 7–15 cm
5. single and 1–3
6. length

B. Multiple Choice Questions

1. (d) 2. (a) 3. (a) 4. (b) 5. (a)

D. Match the Columns

1. (d) 2. (c) 3. (b) 4. (a)

Session 5: Cultivation Technique of Carnation

A. Fill in the Blanks

1. disbudding
2. pinching
3. terminal cuttings
4. 3 × 3 cm
5. 10–15 cm

B. Multiple Choice Questions

1. (a) 2. (b) 3. (c) 4. (b)

D. Match the Columns

1. (c) 2. (e) 3. (a) 4. (b) 5. (d)

Session 6: Cultivation Technique of Gerbera

A. Fill in the Blanks

1. Republic of South Africa
2. division of clumps and cuttings
3. October
4. 50–70
5. 150–250

B. Multiple Choice Questions

1. (a) 2. (b) 3. (d) 4. (c)



D. Match the Columns

1. (d) 2. (c) 3. (b) 4. (a)

Unit 2: Cultivation of Commercial Flower Crops—II

Session 1: Cultivation of Rose

A. Fill in the Blanks

1. 11
2. C
3. three
4. Floribunda
5. Grandiflora
6. Polyantha
7. miniatures
8. rose balling
9. Blindshoot

B. Multiple Choice Questions

1. (a) 2. (a) 3. (a) 4. (a)
5. (b) 6. (b) 7. (a)

D. Match the Columns

1. (b) 2. (a) 3. (d) 4. (e)
5. (c) 6. (f)

Session 2: Cultivation of Gaillardia

A. Fill in the blanks

1. Blanket flower
2. bedding or borders
3. seeds
4. 31 months
5. 10 days
6. 90, 120

B. Multiple Choice Questions

1. (b) 2. (a) 3. (d) 4. (a)
5. (c)

D. Match the Columns

1. (d) 2. (c) 3. (b) 4. (a)

Session 3: Cultivation of Marigold

A. Fill in the Blanks

1. *Tagetes patula*
2. Asteraceae

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3. root-knot nematodes
4. tip cuttings
5. seeds
6. 0.7–1.0

B. Multiple Choice Questions

1. (d)
2. (a)
3. (c)
4. (a)
5. (b)
6. (d)

D. Match the Columns

1. (b)
2. (a)
3. (d)
4. (c)

Session 4: Cultivation of Jasmine

A. Fill in the Blanks

1. 20%
2. *Jaminum grandiflorum*
3. simple layering and stem cuttings
4. winters
5. cuttings
6. rainy season
7. 8–10

B. Multiple Choice Questions

1. (a)
2. (b)
3. (b)
4. (b)

D. Match the Columns

1. (d)
2. (a)
3. (b)
4. (c)

Session 5: Cultivation of Crossandra

A. Fill in the Blanks

1. firecracker plant
2. Lakshmi
3. 2.0–2.5 kg
4. ground layering
5. 70–75 days
6. ethylene

B. Multiple Choice Questions

1. (c)
2. (a)
3. (b)
4. (c)
5. (b)
6. (a)

D. Match the Columns

1. (b)
2. (a)
3. (e)
4. (d)
5. (c)



Unit 3: Growing of Annuals

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A. Fill in the Blanks

1. annuals
2. winter season
3. September–October
4. summer season
5. rainy season
6. June
7. Herbaceous border
8. irrigation
9. damping off
10. pro-trays

B. Multiple Choice Questions

1. (a)
2. (b)
3. (c)
4. (b)
5. (c)
6. (d)

D. Match the Columns

1. (e)
2. (d)
3. (c)
4. (b)
5. (a)

Unit 4: Growing of Perennials

Session 1: Trees, Shrubs and Vines

A. Fill in the Blanks

1. perennial
2. perennial herbs
3. weak stem
4. shrubs
5. tree
6. five
7. evergreen trees

B. Multiple Choice Questions

1. (a)
2. (a)
3. (c)
4. (c)
5. (c)

D. Match the Columns

1. (d)
2. (e)
3. (c)
4. (a)
5. (b)

Session 2: Indoor Plants

A. Fill in the Blanks

1. house plant
2. palms
3. July–August

ANSWER KEY



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4. shallow pan, planting
5. Penzai

B. Multiple Choice Questions

1. (b)
2. (a)
3. (d)
4. (d)

D. Match the Columns

1. (a)
2. (c)
3. (d)
4. (b)

Unit 5: Post Harvest Management and Value Addition

A. Fill in the Blanks

1. perishable
2. 30–40%
3. cool hours
4. demineralised water
5. respiration
6. pulsing
7. sugar
8. grading
9. garlands
10. gulkand

B. Multiple Choice Questions

1. (d)
2. (d)
3. (a)
4. (b)
5. (d)
6. (c)

D. Match the Columns

1. (d)
2. (c)
3. (b)
4. (a)

Unit 6: Maintain Health and Safety at the Workplace

Session 1: Safe Use of Agrochemicals

A. Fill in the Blanks

1. table salt and mustard oil
2. washed with soap
3. gas mask
4. rubber
5. artificial respiration

B. Multiple Choice Questions

1. (d)
2. (d)
3. (c)
4. (d)
5. (a)
6. (d)

D. Match the Columns

1. (b)
2. (a)
3. (c)



Session 2: Safe Use of Agricultural Machinery

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A. Fill in the Blanks

1. tight clothes, hair
2. climb
3. protective

B. Multiple Choice Questions

1. (c)
2. (d)
3. (d)

LIST OF CREDITS

Fig. 1.1; Fig.2.2; Fig. 3.3; Fig. 3.6; Fig. 3.7; Fig. 3.9; Fig. 3.10; Fig. 3.12; Fig. 3.13; Fig. 3.14; Fig. 4.1; Fig. 4.2; Fig. 4.3; Fig. 4.4; Fig. 4.5; Fig. 4.6; Fig. 4.7; Fig. 4.11; Fig. 4.12; Fig. 4.13; Fig. 4.14; Fig. 4.16; Fig. 4.17; Fig. 4.19; Fig. 4.20; Fig. 4.21; Fig. 4.22; Fig. 4.24; Fig. 4.26; Fig. 4.27; Fig. 4.28; Fig. 4.30; Fig. 4.31; Fig. 4.32; Fig. 4.33; Fig. 4.34; Fig. 4.39; Fig. 4.40; Fig. 4.41; Fig. 4.42; Fig. 4.44; Fig. 4.45; Fig. 4.46; Fig. 4.47; Fig. 4.48;

Courtesy: Professor R.K. Pathak, DAAH, PSSCIVE, Bhopal

Fig. 1.2: Courtesy: <http://tinyurl.com/yxqwjr3>

Fig. 1.3; Fig. 1.4; Fig. 1.5; Fig. 1.6; Fig. 1.7; Fig. 1.8; Fig. 1.9

Courtesy: Dr. Manish Kapoor, Associate Professor (Botanical Gardens) Department of Botany, Punjabi University, Patiala, Punjab

Fig. 1.10: Courtesy: <http://tinyurl.com/y4pxh6fe>

Fig. 1.11: Courtesy: <http://tinyurl.com/y2c3jfo6>

Fig. 1.12; Fig. 3.2; Fig. 5.1; Fig. 5.2 (a, b, c)

Courtesy: Balaji Shreedhar Kulkarni, Professor and Head, College of Horticulture, UHS, Bagalkot, Bengaluru

Fig. 1.13: Courtesy: <https://tinyurl.com/y6nalcav>

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Fig. 6.3: Courtesy: <https://goo.gl/uixDC7>

Fig. 6.4: Courtesy: <https://goo.gl/XzFfqm>

Fig. 6.5: Courtesy: <https://goo.gl/ZvGFsn>

Fig. 6.6: Courtesy: <https://goo.gl/mzBA2Q>

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