GLOSSARY

Cladding material: *covering material of the greenhouse that is, polythene, insect proof net, shade net or polycarbonate, etc.*

Clogging: *blockage*

Cocopeat: *growing medium prepared from the dried powder of coconut plant fibres*

Compatibility: *miscibility or mixing ability without precipitation*

Chemigation: *is the application of agricultural chemicals (fertilisers, micro nutrients fungicides, herbicides, insecticides, nematicides, soil conditioners, growth regulators, and biological agents, as well as gray water and animal wastes) into water flowing through an irrigation system.*

Dripper: *water emitting hole in the drip irrigation pipe, also called emitter.*

EC meter: *device to measure the electrical conductivity of water or aqueous phase of soil*

Evapotranspiration: *water loss through transpiration from plants canopy and evaporation from soil surface and expressed in mm/ day.*

Fertigation: *supply of irrigation in combination with soluble fertilisers as per required dosages and frequency.*

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

Gutter: *channel for collecting water for run-offs from the roof.*

Hazard: *a potential threat or source of harm*

Hygrometer: *device to measure relative humidity*

Micronutrient: *nutrients required by plants in very minute dosages or in traces only.*

Occupational hazards: *hazards experienced at the workplace*

Pan evaporation: *evaporation of water from an open surface recorded at a meteorological station on a daily basis and expressed in mm/day. Under protected cultivation, open field pan evaporation is multiplied by a conversion factor ranging from 0.3–0.6 to know the actual evaporation inside protected structures.*

Poison: *substance capable of causing illness or death.*

Pro tray: *plastic trays used for soil-less production of nursery*

Shade net house: *protected structures are covered by a shade net often on all sides to protect the crop from intense solar radiation.*

Sterilisation: *disinfestation of any medium or container or soil to make it free from infection of bacteria, fungi or other microbes and/or disabling any living entity to reproduce. It is also called ascepticisation.*

Ventilation: *movement or exchange of air across the system or cross aeration*

Walk-in-tunnel: *protected structures covered by polythene, high enough for walking by workers and open on both the ends generally to allow pollination*

NOTES

Further Readings

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Answer Key

Unit 1: Care and Maintenance of Protected Structures

Session 1: Care and Maintenance of Protected Structure Components

A. Fill in the blanks

1. Smoking
2. moving parts
3. side curtains or doors
4. electrician
5. water

B. Multiple choice questions

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

D. Match the columns

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

Session 2: Care and Maintenance of Drip Irrigation and Fogging Systems

A. Fill in the blanks

1. clogging problem
2. 7
3. fogger
4. oil paint
5. temperature and humidity

B. Multiple choice questions

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

D. Match the column

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

Session 3: Sanitation Practices in Greenhouses

A. Fill in the blanks

1. CO_2
2. rubber

B. Multiple choice questions

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

C. Match the columns

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

Unit 2: Protected Cultivation of Rose, Gerbera, Carnation, Lilium and Orchids

Session 1: Protected Cultivation and Package of Practices for Roses

A. Fill in the blanks

1. sandy loam
2. October to November
3. 75
4. 15–28°C
5. budding

B. Multiple choice questions

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

D. Match the columns

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

Session 2: Protected Cultivation and Package of Practices for Gerbera

A. Fill in the blanks

1. 200 cut flowers
2. 60,000
3. 2–4
4. South Africa
5. 22–25°C to 12–16°C

B. Multiple choice questions

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

D. Match the columns

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

Session 3: Protected Cultivation and Package of Practices for Carnation

A. Fill in the blanks

1. sandy loam
2. 120, 160 days
3. terminal

B. Multiple choice questions

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

D. Match the columns

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

Session 4: Protected Cultivation and Package of Practices for Orchids

A. Fill in the blanks

1. 70
2. tissue culture
3. 75 per cent
4. 21°C to 29°C and 18°C to 21°C

B. Multiple choice questions

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

D. Match the columns

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

Session 5: Protected Cultivation and Package of Practices for Lilium

A. Fill in the blanks

1. three
2. 6 inches
3. Liliaceae
4. silver black

B. Multiple choice questions

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

D. Match the columns

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

Unit 3: Special Horticultural Practices in Protected Cultivation

Session 1: Special Horticultural Practices in Rose Cultivation

A. Fill in the blanks

1. pinching
2. disbudding
3. de-suckering

B. Multiple choice questions

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

D. Match the columns

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

Session 2: Special Horticultural Practices in Carnation Cultivation

A. Fill in the blanks

1. supporting net or metallic wire
2. 4–5 layers
3. 3–4

B. Multiple choice questions

1. (c) 2. (c)

D. Match the columns

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

Session 3: Plant Growth Regulators, Types and their Role

A. Fill in the blanks

1. IAA
2. GA

B. Multiple choice questions

1. (c) 2. (b)

D. Match the columns

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

Session 4: Method of Application of Growth Regulators

A. Fill in the blanks

1. dust/powder method
2. spraying

B. Multiple choice questions

1. (c) 2. (d)

D. Match the columns

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

Unit 4: Control of Insect Pests and Diseases in Flower Crops

Session 1: Monitoring and Management of Pests and Diseases

A. Fill in the blanks

1. monitoring/scouting
2. pests, diseases
3. visual

B. Multiple choice questions

1. (b) 2. (d)

D. Match the columns

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

Session 2: Management of Pests and Diseases

A. Fill in the blanks

1. mites
2. aphids

3. thrips
4. powdery mildew

B. Multiple choice questions

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

D. Match the columns

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

Session 3: Physiological Disorders of Flower Crops

A. Fill in the blanks

1. yellow
2. low temperature and anthocyanin
3. carnation

B. Multiple choice questions

1. (b) 2. (a)

D. Match the columns

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

Unit 5: Harvesting and Post-harvest Management

Session 1: Stage of Harvesting

A. Fill in the blanks

1. 20–40 per cent
2. pre and post-harvest

B. Multiple choice questions

1. (a) 2. (c)

D. Match the columns

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

Session 2: Pre-cooling

A. Fill in the blanks

1. field heat
2. forced air cooling
3. grading

B. Multiple choice questions

1. (a) 2. (b)

D. Match the columns

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

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

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 (a and b): Naved Sabir, Principal Scientist at Centre for Protected Cultivation Technology (CPCT), IARI, New Delhi

Fig. 2.1 (a): https://tinyurl.com/y2grckd7/

Fig. 2.1 (b): https://tinyurl.com/y3c8glpc

Fig. 2.1 (c): https://bit.ly/2UHuIP0

Fig. 2.1 (d): https://bit.ly/2WQLgX0

Fig. 2.1 (e): https://tinyurl.com/y6b7abmu

Fig. 2.1 (f): https://tinyurl.com/yxlra7xw

Fig. 2.2: https://tinyurl.com/yylcjmsq

Fig. 2.3 (a and b), 2.5, 2.6, 2.7 (a, b and c), 2.8 (a and b), 2.9, 2.10, 2.11, 2.12 2.13, 2.14, 2.15 (a, b and c), 2.16, 2.17, 2.18, 2.19, 2.20, 2.21, 2.22, 2.23, 2.24, 2.25, 2.26, 2.27, 2.28, 2.29, 2.30, 2.31, 2.32, 2.33, 2.34, 2.35, 2.36, 2.37, 3.1, 3.2, 4.1, 4.2, 5.1: Balaji Shreedhar Kulkarni, Professor and Head, UHS Campus, G.K.V.K., Bengaluru, Karnataka

Fig. 2.4 (a): https://tinyurl.com/y4q2d7b2

Fig. 2.4 (b): https://tinyurl.com/y4k7aefr

Fig. 2.4 (c): https://tinyurl.com/y6ry342m

Fig. 4.3: https://tinyurl.com/yxdt8ay4

Fig. 4.4: https://tinyurl.com/y2w3mtct

Fig. 4.5: https://tinyurl.com/yx9zldjh

Fig. 4.6: https://tinyurl.com/y6od67ho

Fig. 4.7: https://tinyurl.com/y5fez6u9

Fig. 4.8: https://tinyurl.com/y6qzqlq6

Fig. 4.9: https://tinyurl.com/yy3mta9n