

# Horticulture Sample Question Paper 2020

Max. Time: 3 Hours

Max. Marks: 60

## Part A

### Employability Skills

*Answer any 4 questions out of the given 6 questions of 1 mark each:*

**1. The process of creating a non-fiction text about current or recent news, items of general interest, or a specific topic is called**

- a) Writing skills
- b) Paragraph writing
- c) Article writing**
- d) None of these

**2. It contains icons for the most commonly used commands-**

- a) Menu bar
- b) Standard bar**
- c) Formatting bar
- d) Title bar

**3. This personality disorder is marked by an overreliance on other people to meet one's emotional and physical needs-**

- a) Dependent**
- b) Obsessive
- c) Avoidant
- d) Borderline

**4. Who oversees green activities in their organization?**

- a) Energy auditors
- b) Wind energy engineers
- c) Solar energy engineers
- d) Chief sustainability officers**

**5. Define 'Entrepreneurship'.**

**Ans:** Entrepreneurship is a process of developing a business plan, launching and running a business using innovation to meet customer needs and to make a profit.

**6. This is not the source of motivation and inspiration-**

- a) Books
- b) Gossip**
- c) Dreaming big
- d) Music

*Answer any 3 questions out of the given 5 questions of 2 marks each:*

**7. Give two points of difference between listening and hearing.**

**Ans:** Two points difference between listening and hearing-

Listening	Hearing
It is active.	It is passive.
It requires a conscious effort.	It does not require a conscious effort.

(Any other, any two points)

**8. Write four steps to insert a text box in a slide.**

**Ans:** Four steps to insert a text box in a slide are-

- 1. Click the text button on the drawing bar
- 2. The mouse pointer changes to + the sign
- 3. Place the mouse pointer on the slide where you want to add the text box
- 4. Click and drag on the side to draw a text box. (Any four points)

**9. Tell two traits of each extraversion and agreeableness personality.**

**Ans:** Two traits of extraversion personality-

- 1. Gregarious
- 2. Assertive (Any other, any two points)

Two traits of agreeableness personality-

- 1. Cooperative
- 2. Agreeable (Any other, any two points)

**10. List four green jobs in the building and construction field.**

**Ans:** Four green jobs in building and construction field are-

1. Construction worker
2. Concrete laborers
3. Highway laborers
4. Building planner and coordinators (Any other, any four points)

**11. Give one example each of trading & services, and also give its reason.**

**Ans:** A Chemist Shop or Pharmacy is an example of trading as the buying and selling of goods takes place. A doctor giving a medical consultation is an example of services, as here we pay for a doctor's expertise or services.

## **Part B**

### **Subject Skills**

**Answer any 10 questions out of the given 12 questions:**

**12. Write the two most common indoor plants.**

**Ans:** Pothos/Money Plant and Dieffenbachia

**13. Write the family of marigold.**

**Ans:** Asteraceae

**14. Name the topmost cut flower in the International flower market.**

**Ans:** Rose

**15. Name two varieties of gerbera suitable for protected cultivation.**

**Ans:** Dalma and Rosalin

**16. Write the names of two CAD software used in landscape designing.**

**Ans:** AutoCAD and ArchiCAD.

**17. Write the most commonly grown lawn grass in India.**

**Ans:** *Cynodon dactylon* or Doob grass

**18. Name two value-added products of roses.**

**Ans:** Gulkand, Rose water

**19. Write the names of two flowers that are used in the cosmetic industry.**

**Ans:** Rose and Calendula.

**20. Name two germicides commonly used in floral preservatives.**

**Ans:** 8HQC and 8HQS

**21. Write the names of different areas of the outdoor room.**

**Ans:** Public area, service area, and living area

**22. Ikebana is which type of flower arrangement.**

**Ans:** Japanese

**23. Write the names of two ornamental trees suitable for making bonsai.**

**Ans:** Banyan tree and Peepal tree

*Answer any 5 questions out of the given 7 questions of 2 marks each:*

**24. What do you understand by the term Topiary?**

**Ans:** Topiary: The art of clipping and shearing shrubs and small trees, and sometimes even herbaceous perennials, into ornamental or abstract shapes.

**25. What do you understand by the term value addition?**

**Ans:** Value Addition: Value addition is any step taken to increase the value of a raw product anytime between harvesting and the sale of the final product.

**26. What are Indoor Plants?**

**Ans:** Indoor plants: These are the plants that are best adapted to the indoor environment and grown indoors in places such as residences and offices.

**27. Define Mowing**

**Ans:** Mowing: It is the cutting of lawn grass for maintaining its attractiveness for maximum utility.

**28. What is pinching?**

**Ans:** Pinching: It refers to the removal of the growing point of a shoot along with a few leaves so as to encourage branching or to produce a bushy growth.

**29. What do you understand by the term Pulsing?**

**Ans:** Pulsing: It consists of placing the lower portion of cut flower stems in a solution containing a high percentage of sugar and germicide for a period of a few hours to two days. Specific formulations developed vary with the flower species, as sucrose 2-20% for 12-48 hours at 20 -27 ° C and relative humidity 80-100% under 2000-2500 lux cool light.

**30. Write the role of APEDA in the promotion of floriculture.**

**Ans:** Role of APEDA in the promotion of floriculture: APEDA is responsible for export promotion and development of Floriculture and floriculture products. The following assistance and promotional efforts have been made for Export Oriented Floriculture units:

- Scheme for the development of infrastructure and services.
- Scheme for Development of Post-harvest Infrastructure
- Scheme for Packaging Development.
- Scheme for Export Promotion and Market Development.
- Scheme for Survey, Feasibility, Consultancy and Database
- Scheme for Air Freight Subsidy

- Scheme for assistance to promote Quality Control and Quality Assurance.
- Research & Development
- Establishment of Cold Stores at major International Airports for Perishables
- Scheme for the establishment of Auction Houses for Flowers.

*Answer any 5 questions out of the given 7 questions of 3 marks each:*

**31. Advantages of Computer-Aided Design**

**Ans:** Advantages of Computer-Aided Design

- Accuracy in landscape designs
- Cost saving
- Increased Productivity
- Time saving
- Uniform Designs
- Editing
- Quick learning of software rather than hand drafting

**32. Employment avenues in the floriculture sector**

**Ans:**

- Traditional flower cultivation
- Cut flower cultivation
- Nursery industry
- Hybrid seed production
- Lawn industry
- Florist and floral decorations
- Value-added products
- Bonsai
- Fillers
- Specialty flowers

**33. Outdoor room concept**

**Ans:** Outdoor room concept: Just like the interior of our homes, these outdoor spaces reflect our lifestyle, tastes, and needs. Also, just like our homes, they have specific functions. There are three main functions to a given outdoor space: the living area, the public area, and the service area. These specific areas are often referred to as outdoor rooms. Thinking and planning in this way is known to landscape designers as the outdoor room concept. Composition is the same as the indoor room, comprised of – Outdoor Wall – Outdoor floor – Outdoor Ceiling.

**34. Methods of drying flowers**

**Ans:** Methods of drying flowers

- Air drying

- Embedded drying
- Press drying
- Water drying
- Glycerine drying

### **35. Lawn establishment methods**

**Ans:** Lawn establishment methods

- Seeding
- Dibbling
- Turf Plastering
- Turfing

### **36. Methods of propagation in chrysanthemum**

**Ans:** The most common methods of propagation in chrysanthemum are by suckers and cuttings

- A) Suckers: After the flowering is over the plants are beheaded to a height of about 15-20 cm from the ground level. During January –February, new suckers start appearing round the base of the stool and these are separated and planted in 10 cm pots. The suckers have their own root system. The pots should be kept in light shade to allow more rooting.
- B) Cuttings- After flowering is over, the plants are cut to ground level as stated above. New shoots arise from the base as well as from the axils of leaves. Young tip cuttings measuring 5-8 cm are taken just above a node. The lower leaves are removed, and the basal portion of the cuttings are treated with some root-promoting hormones like Seradix before planting.

### **37. Hedge and edge**

**Ans:**

**Hedge:** Shrubs or trees planted at regular intervals to form a continuous screen. The two main functions are for ornamental and protective purposes.

**Edge:** Evergreen, low-growing plants having the same characteristics as for planting a hedge are grown to form an edge. The main purpose is to direct traffic in the garden and to divide different areas or features in the garden.

**Answer any 3 questions out of the given 5 questions of 5 marks each:**

### **38. Write the protected cultivation of roses with respect to soil and climate, varieties, propagation method, planting distance, major insects, pests, and diseases.**

**Ans:** Protected Cultivation of Rose

- Soil: Well-drained, loamy soil having adequate organic matter, pH 6.0-6.5.
- Climate:
  - Temperature (Day 18-28 0C and night 15-18 0C)
  - Relative humidity (50-60%)

- Light (photoperiod over 12 hours and intensity 6000- 8000 foot candles)
- Carbon dioxide (1000-3000 ppm)
- Important varieties: First Red, Grand Gala, Konfetti, Noblesse, Tajmahal, Sangaria, Gladiator
- Propagation method: T- budding
- Planting distance: Single, double, or four row planting system in bed is being followed, and spacing of 30 x 25 cm is kept.
- Major Insects-pests: Red Scale, Aphids, Thrips, Jassids, Chafer beetles, Red Spider mite, Digger wasp.
- Major diseases: Die Back, Black Spot, Powdery mildew, Rust, Grey mould, Wilt Mosaic, Leaf blight

**39. Write in detail about various post-harvest factors affecting the vase life of cut flowers.**

**Ans:** Post-harvest factors affecting the vase life of cut flowers are

- Temperature
- Light
- Humidity
- Water Quality
- Ethylene sensitivity
- Preservatives
- Ventilation
- Packaging
- Diseases and pests

**40. Explain in detail the different features of gardens.**

**Ans:** Different features of gardens

- Garden drives
- Paths
- Garden steps
- Garden walls
- Fences
- Gates
- Arches
- Pergolas
- Bridges
- Lawns
- Flower beds
- Borders
- Carpet Bedding
- Shrubbery

- Hedge
- Edge
- Terrace
- Dry wall
- Greenhouse
- Conservatory
- Garden adornments (statues, Garden seats, ornamental vases, sun dials, bird baths, floral clock, fountains, statues, etc.)
- Specialised gardens (water garden, rock garden, paved garden, sunken garden, vertical garden, etc.)

**41. Define Ikebana. Write down different types of Ikebana flower arrangements.**

**Ans:** Ikebana: The Japanese method of flower arrangement is known as Ikebana.

Different types of Ikebana:

- Moribana
- Nageire
- Jiyubana
- Zeneika,
- Zeneibana
- Morimono

**42. Write the commercial cultivation of marigold with respect to soil and climate, varieties, propagation method, planting distance, major insects, pests, and diseases.**

**Ans:** Commercial cultivation of marigold

- Soil: Marigold can be cultivated in a wide variety of soils. A deep, fertile, friable soil having good water holding capacity and aeration is suitable for its cultivation. Sandy loam soil with a pH of 7.0-7.5, having good drainage, is most preferred.
- Climate: The environmental conditions markedly influence the growth and flowering of marigold. Mild temperatures during the growing period greatly improved flowering.
- Varieties: Pusa Narangi Gaiinda, Pusa Basanti Gaiinda, Pusa Arpita, Bidhan Marigold-1, Bidhan Marigold-2 etc.
- Propagation method: Mostly through seeds and in some varieties by cuttings.
- Planting distance: Generally distance between rows is kept 45-60 cm, and from plant to plant it is 30-45 cm.
- Insect pests: Red spider mite, hairy caterpillars, and leaf hoppers
- Diseases: Damping off, Leaf spots and blight, flower bud rot, and viral diseases.