

**UNIT – 1**

1. Which of the following cereal was among the first to be used by man?

- a) Barley
- b) Oat
- c) Rye
- d) Wheat

2. Lysine is an essential amino acid for man and, therefore, has to be an essential component of human diet. The highest content of this amino acid is found in:

- a) Wheat
- b) Rye
- c) Oat
- d) Barley

3. Consider the following crop plants cultivated in our country:

- 1. *Maize*
- 2. *Spinach*
- 3. *Tobacco*
- 4. *Barley*

Which of these are long – day plants?

- a) 1 and 4
- b) 2 and 4
- c) 3 and 4
- d) 2 and 3

4. Which of the following plants belong to the same plant family?

- 1. Apple
- 2. Apricot
- 3. Almond
- 3. Peach

Select the correct answer from the codes give below:

- a) 1 and 4
- b) 2 and 3
- c) 2, 3 and 4
- d) 1, 2, 3 and 4

5. A plant known only in cultivation, having arisen under domestication is referred to as:

- a) Cultigen
- b) Cultivar
- c) Clone
- d) Scion

6. The pores in leaves through which liquid water oozes out at times are called:

- a) Hydathodes
- b) Lenticels
- c) Phyllopores
- d) Stomata

7. The tissue that is involved in the transport of food material in plants is called:

- a) Parenchyma
- b) Phloem
- c) Sclerenchyma
- d) Xylem

8. Match the crop plants in List I with their botanical names in List II and select the correct answer by using the codes given below the list:

List I

(Crop Plants)

- a) Cotton
- b) Grapes
- c) Rice
- d) Mango

List II

(Botanical Name)

- 1. *Mangifera indica*
- 2. *Oryza Sativa*
- 3. *Gossypium hirsutum*
- 4. *Vitis vinifera*

- a) a-2; b-3; c-1; d-4
- c) a-3; b-1; c-2; d-4

- b) a-3; b-4; c-2; d-1
- d) a-4; b-1; c-2; d-3

9. The international Board for Plant Genetic Resources (IBPGR) was established in 1974 at:

- a) New Delhi
- b) Philippines
- c) Boston
- d) Rome

10. Dr. E.H. Wilson, one of the greatest among the plant hunters, is well – known for his collection an introduction of the ‘regal lily’ to the United States of America. The plant was collected from:

- a) China
- b) Japan
- c) India
- d) Scandinavia

11. Plants that are unable to synthesize their own food and are, therefore, dependent on other sources of food are called:

- a) Parasites
- b) Auxotrophs
- c) Chemotrophs
- d) Heterotrophs

12. Match List I with List II and select the correct answer from the codes given below the lists.

List I

- a) Fruit ripening
- b) Cell division
- c) Apical dominance
- d) Stem elongation

List II

- 1. Gibberellins
- 2. Auxins
- 3. Cytokinins
- 4. Ethylene

a) a-3; b-1; c-2; d-4

c) a-1; b-2; c-3; d-4

b) a-4; b-3; c-2; d-1

d) a-2; b-1; c-4; d-3

13. The ripening of fruits can be accelerated by:

- a) Decreasing oxygen concentration of the surroundings
- b) Increasing ethylene concentration of the surroundings
- c) Reducing water supply to the plants
- d) Spraying urea during maturation of fruits

14. Nearly 90% of the global food supply comes from

- a) Only five plant species
- b) One dozen plant species
- c) Nearly two dozen plant species
- d) More than three dozen plant species

15. The primary role of vegetables and fruits in our diet is to supply us necessary minerals and vitamins. Which of the following vegetables and fruit crop/s is/are a rich source of Vitamin A (or its precursor)

- a) Carrot
- b) Tomato
- c) Mango
- d) All the above

16. The genetic material in viruses is:

- a) Double – stranded DNA
- b) Single – stranded DNA
- c) RNA
- d) All the above

17. A gram of fertile agricultural soil may contain bacteria up to:

- a) Fifty thousand
- b) Five hundred thousand
- c) Five million
- d) One billion and above

18. A fungus, *Trichoderma viride*, one of the worst pests of World War II, is now being cultured by the United States Army because of its capacity to:

- a) Convert newspaper wastes and other municipal debris into glucose
- b) Convert newspaper wastes, straw, and peanut shells into useful sugars
- c) Synthesize cellulose
- d) Synthesize various compounds for chemical warfare

19. A disease that occurs periodically in a widespread area causing devastating damage to crop plants is referred to as:

- a) Endemic
- b) Epiphytotic
- c) Extensive
- d) Sporadic

20. Match the plant disease in List I with the causative agent in List II and select the correct answer using the codes given below the lists:

List I

**(Plant disease)**

- a) Karnal bunt
- b) Citrus dieback
- c) Sesamum
- d) Tunda disease

a) a-2; b-3; c-4; d-1

c) a-5; b-2; c-3; d-4

List II

**(Causative agent)**

- 1. Fungus
- 2. Bacterium
- 3. Virus
- 4. Mycoplasma
- 5. Nematode

b) a-1; b-5; c-4; d-2

d) a-4; b-5; c-3; d-1

21. Which of the following plant/animal disease are not caused by viruses?

- 1. Bunchy top
- 2. Kuru
- 3. Leaf Curl
- 4. Potato spindle – tuber

Select the correct answer from the alternatives given below:

- a) 1 and 2
- b) 1 and 4
- c) 2 and 3
- d) 2 and 4

22. Which of the following species of grapes is most commonly used for making wines?

- a) *Vitis labrusca*
- b) *Vitis rotundifolia*
- c) *Vitis vinifera*
- d) *Vitis vulpine*

23. A pair of chromosomes in fruit fly and humans determines sex. These are referred to as sex chromosomes. What is the name given to the other chromosome?

- a) Allosomes
- b) Autosomes
- c) Heterosomes
- d) Homosomes

24. Consider the following genetic disorders (diseases) in human beings:

- 1. Down syndrome
- 2. Hemophilia
- 3. Lesch–Nyhan syndrome
- 4. Thalassemia

Which of these disorders are sex-linked?

- a) 2 and 3
- b) 1 and 3
- c) 2 and 4
- d) 1, 2 and 3

25. Gene interaction between non-allelic genes that results in the suppression of expression of one gene by the other is called:

- a) Phenogenesis
- b) Dominance
- c) Epigenesis
- d) Epistasis

26. Some of the leading wheat – producing countries of the world are USA, India, China and the Russian Federation. Select the countries from the following in correct sequence according to their production:

- a) China → USA → India → Russian Fed.
- b) USA → Russian Fed. → India → China
- c) Russian Fed → USA → China → India
- d) India → China → Russian Fed → USA