

## Model Question Paper

### Subject-Biology

#### Class-XII

#### SECOND TERMINAL EXAMINATION, 2022

**Time : 3 Hrs.**

**M.M-50**

1. Virus infected cells secrete proteins called (1×1=20)
- (a) Serotonian (b) Histamine
- (c) Interferons (d) None of these
2. The antibodies produced in response to allergens are
- (a) IgA (b) IgD
- (c) IgE (d) IgM
3. Diacetylmorphine is a/an
- (a) opoid (b) Cannabinoid
- (c) Coca alkaloid (d) None of the above.
4. Nicotine stimulates
- (a) Pancreas (b) Thymus
- (c) Thyroid (d) Adrenal gland
5. Swiss cheese is produced due to the activity of
- (a) Virus (b) Bacteria
- (c) Fungi (d) Protozoa

6. Citric acid is produced by activity of
  - (a) *Acetobacter aceti*
  - (b) *Lactobacillus*
  - (c) *Penicillium notatum*
  - (d) *Aspergillus niger*.
7. Secondary sewage treatment is mainly
  - (a) Physical treatment
  - (b) Chemical treatment
  - (c) Mechanical treatment
  - (d) Biological treatment
8. Which of the following is a free living nitrogen fixing bacteria
  - (a) *Rhizobium*
  - (b) *Azotobacter*
  - (c) Lichens
  - (d) None of above
9. An enzyme which catalyse the removal of nucleotides from the end of DNA is
  - (a) Exo-nuclease
  - (b) End-nuclease
  - (c) Ligase
  - (d) Polymerase.
10. While isolating DNA from bacteria which enzyme is not used
  - (a) Lysozyme
  - (b) Ribonuclease
  - (c) Deoxyribonuclease
  - (d) Protease
11. Crystals of Bt-toxin produced by some bacteria donot kill the bacteria themselves because
  - (a) bacterias are resistant to the toxin
  - (b) Toxin is immature
  - (c) Toxin is inactive
  - (d) Bacteria encloses toxin in special sac.

12. GEAC stands for
- (a) Genetic engineering Action committee
  - (b) Genetic Engineering Approval committee
  - (c) Global Environment Action Committee
  - (d) None of the above
13. In commensalism, out of two interacting organisms
- (a) Both are benefitted      (b) Both are harmed
  - (c) One is benefitted and other is unaffected
  - (d) One is harmed other is benefitted.
14. Mycorrhiza is a symbiotic association between roots of higher plants and
- (a) Algae      (b) Fungi
  - (c) Lichens      (d) Protozoa
15. Mammals from colder areas have shorter ears and limbs. This is called
- (a) Mendel's rule      (b) Allen's rule
  - (c) None of these
16. Which forest is known as the lung's of the planet ?
- (a) Siberian forest      (b) Amazon rainforest
  - (c) Deciduous forest      (d) None of the above.

17. The active chemical drug reserpine is obtained from  
(a) Datura (b) Atropa  
(c) Papaver (d) Rauwolfia
18. Rivet popper hypothesis was given by  
(a) Stanely (b) Tansley  
(c) Paul Ehrlich (d) Jim Corbett
19. Cryperservation is preservation of living tissue  
(a) At a very high temperature  
(b) Preservation by dehydrating  
(c) Preservation at very low temperature in liquid nitrogen  
(d) None of the above.
20. Which is not a hot spot of bio diversity ?  
(a) Western ghats and Shri Lanka  
(b) Indo Burma  
(c) Himalaya's  
(d) None of the above
21. Draw a well labelled diagram of Antibody molecule. (2)
22. Explain a microbial biopesticide. (2)
23. Write the composition of bio-gas and the common bacteria which produces it (2)
24. How can we separate DNA fragments after cutting of DNA, explain in detail. (2)

25. Write four advantages of genetically modified plants. (2)

Or

What is ADA deficiency ? How can it be corrected ?

26. Why are mammals considered as regulators ? (2)

27. Give two reasons for greater biodiversity in tropical regions.

Or

Write the causative agents of following diseases (2)

(a) Typhoid

(b) Ascariasis

(c) Malaria

(d) Pneumonia

28. Where do we use bio-reactors ? Explain downstreaming process.

29. (a) Write four causes of loss of biodiversity ? (3)

(b) Write its effects on eco-system

Or

(a) What is the importance of biopatent ?

(b) Where do we use Taq polymerase enzyme ?

30. (a) Differentiate between Primary and Secondary lymphoid organs. (5)

(b) The number of helper T-lymphocytes has decreased in the body of an infected person. He is suggested to take anti Retroviral drugs.

1. Name the disease he is suffering from

2. Write its causative agent

3. Name the diagnostic test for this disease.

Or

(a) Expand the following

(a) MALT

(b) CMI

(c) NACO

(d) LAB

(b) Cirrohsis is the damage of ..... cells

(c) What is the causative agent of filiarisis, its symptoms and its transmission.

31. (a) Write Verhulst pearl Logistic growth equation.

(b) An orchid plant is growing on the branch of a mango tree, what type of interaction is this ?

(c) Write two methods by which plants protect themselves against herbivory ?