

Higher Secondary Examination 2022-2023

Subject Code-231

Biology

(Hindi & English Versions)

Time: 3 Hours

M.M.70

Instructions^v

- (i) All Questions are compulsory.
- (ii) There are 28 objective questions from question no. 1 to 4. Each Question carries 7 marks.
- (iii) Question no. 5 to 12 are very short answer type question. Word limit of 30 words approximately. Each question carries 2 marks.
- (iv) Question No. 13 to 16 are short answer type question. Word limit of 75 words approximately. Each question carries 3 marks.
- (v) Question No. 17 is long answer type question. This question carry 4 marks. Word limit 120 words approximately.
- (vi) Question no. 18 to 19 are very long answer type question. Word limit 150 words approximately. Each question carries 5 marks.
- (vii) Internal option are given from question no. 5 to 19.
- (viii) Draw well labelled diagram if necessary.

1.

Fill in the blanks :

- (i) The inner layer of anther of angiosperms is.....
- (ii) The milk that comes out for the first few days of lactation is called.....
- (iii) Morgan worked on.....
- (iv) In Turner syndromechromosomes are present.
- (v) Main Lymphoid organ is.....
- (vi) Cocaine is obtained from.....
- (vii) First antibiotic was.....

2. Choose and write the correct option:

- (i) False fruit is -
 - (a) Apple
 - (b) Mango
 - (c) Guava
 - (d) Papaya
- (ii) Saheli contraceptive pills discovered in-
 - (a) Nepal
 - (b) Kolkata
 - (c) Bangalore
 - (d) Lucknow
- (iii) The process by which polypeptides are formed by Polymerisation of amino acid is
 - (a) Transcription
 - (b) Transformation
 - (c) Transportation
 - (d) Polyembrygony.
- (vi) What is withdrawal syndrome?
 - (a) Abrupt cessation of regular consumption of alcohol.
 - (b) Regular consumption of drugs.
 - (c) Regular consumption of alcohol.
 - (d) Consumption of cannabinoids.
- (v) Symbiotic relationship between fungi & plants.
 - (a) Cynobacteria
 - (b) Mycorrhizae.
 - (c) Anabina
 - (d) Nostoc.
- (vi)is found in abundance in golden rice.
 - (a) Vitamin B
 - (b) Vitamin C
 - (c) Vitamin A
 - (d) Vitamin D
- (vii)is known as the father of ecology in India.
 - (a) Odum
 - (b) Ramdev mishra

(c) O.P. Ayangar

(d) P. Maheshwari

3. Write the answer in one word/sentence.

- (i) Name the structure that establishes vascular connection between the embryo and uterus.
- (ii) Write the name of cotyledon of maize.
- (iii) Who proposed the embryonic support for evolution.
- (iv) Write the full name of BOD.
- (v) In which technique taq polymerase enzyme is used?
- (vi) Write the name of the bacteria which converts milk into curd.
- (vii) In which city was the earth summit held in 1992.

4. Match the Columns:

Column A	Column B
1. Vasectomy	(i) Negatively charged
2. D.N.A.	(ii) Molecular scissors
3. Typhoid	(iii) Orchid
4. Restriction Enzyme	(iv) Widal test
5. D.N.A. Isolation	(v) Earthworm
6. Detritivorous	(vi) Male
7. Epiphyte	(vii) Gel electrophoresis

5. What is pollination? 2
Or
What is emasculation?
6. What is the parturition? 2
Or
What do you understand by invitro fertilization?
7. Write two functions of ovary?
(i) MTP
(ii) IUT
Or
Write the full form of the following-
(i) MTP
(ii) IUT
8. Write the characteristics of Down syndrome. 2
or
What is colour blindness?
9. Write the characteristics of sickle cell anemia? 2
or
Define adaptive radiation with example.
10. Write the name of two sedative drugs. 2
Or
What is immunity? Write the name of its types.
11. Biofertilizers are beneficial to humans as compared to chemical fertilizers write two reasons.
or
What is vaccination?
12. What is cry gene? Give the example.
or
What is gene therapy?
13. Write three differences between self pollination & cross pollination. 3
or
Draw a labelled diagram of typical flower.
14. Describe the inheritance of Hemophilia in human.
Condition: offspring produced by affected father & normal mother. 3
or

Write any three features of genetic code.

15. What is sewage? What is the role of microbes in sewage treatment?

Write three differences between innat & ^{or} aquired immunity.

16. What is decomposition? Briefly explain the process of decomposition. 3

Or

Briefly explain the component of ecosystem.

17. Describe the experiment of miller & urey with labelled diagram 4

or

Explain sex determination in human.

18. Describe gel electrophoresis with diagram. 5

or

What are genetically modified crops. Write two advantages and disadvantage of GM crops.

19. What is ecological pyramid. Explain the pyramid of energy with diagram.

Or

5

Describe in detail the significance of biodiversity.

