

UP Board 12 Biology (348-GM) Question Paper

Time Allowed :3 hours	Maximum Marks :70	Total questions :33
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General Instructions

Read the following instructions very carefully and strictly follow them:

- 1. All questions are compulsory.**
- 2. Illustrate your answers with labeled diagrams, wherever necessary.**
- 3. Marks allotted to each question are mentioned against it.**

Multiple Choice Type Questions

1. (a) The cells of endosperm are:

- (1) Haploid
 - (2) Diploid
 - (3) Triploid
 - (4) Tetraploid
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1. (b) The number of chromosomes in male drone of honeybee is:

- (1) 32
 - (2) 64
 - (3) 8
 - (4) 16
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1. (c) The genetic substance of virus is:

- (1) DNA or RNA
 - (2) only RNA
 - (3) only DNA
 - (4) None of these
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1. (d) Congenital metabolic disorder is:

- (1) Phenylketonuria
 - (2) Colourblindness
 - (3) Haemophilia
 - (4) Anaemia
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Very Short Answer Type Questions

2. (a) Write the zoological name of the causative agent of Filaria disease.

2. (b) Write any one difference between DNA and RNA.

2. (c) Name any two biodiversity hot spots.

2. (d) What is the function of Sertoli cells in human testis?

2. (e) Which enzyme breaks DNA molecule?

Short Answer Type Questions I

3. (a) Write the names of four nucleotide units of DNA.

3. (b) Describe the food chain with diagram.

3. (c) What do you mean by Central Dogma of Molecular Biology?

3. (d) Write the name of any one disease caused by mosquitoes and describe its control measures.

3. (e) What is Bioinformatics?

Short Answer Type Questions II

4. (a) Describe the role of animals in pollination.

4. (b) Draw a neat labelled diagram of a dicotyledonous embryo.

4. (c) What is incomplete dominance? Explain with examples.

4. (d) How do biofertilizers increase the fertility of the soil?

5. (a) Write a note on Hardy–Weinberg principle.

5. (b) Describe emasculation.

5. (c) Write a note on linkage.

5. (d) Draw a labelled diagram of sectional view of female ovary.

6. (a) Describe the role of microbes in biogas production.

6. (b) Explain the DNA fingerprinting and its uses.

6. (c) Write a note on Australopithecines.

6. (d) What is mutualism? Explain it with suitable example.

Long Answer Type Questions

7. Describe in detail how microbes can be used to decrease the use of chemical fertilizers and pesticides.

OR

7. Mention in brief the contribution of biotechnology in human welfare.

8. Explain the salient features of Human Genome.

OR

8. Describe different Assisted Reproductive Technologies (ART).

9. Describe Mendelian disorder in detail.

OR

9. Define ecosystem. Describe its biotic and abiotic components with diagrams.
