

UP Board 12 Biology (348(GL)) 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. Choose the correct option and write in your answer-book:

(a) Genetic engineering is useful in:

- (1) Agriculture
 - (2) Medical treatment
 - (3) Formation of vaccine
 - (4) All of these
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(b) Which one of the following is not a false fruit?

- (1) Apple
 - (2) Strawberry
 - (3) Cashew
 - (4) Mango
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(c) The vector of Dengue (Break bone) fever is:

- (1) Culex
 - (2) Aedes
 - (3) Anopheles
 - (4) None of these
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(d) The name of the plant pollinated by water is:

- (1) Hydrilla
 - (2) Pea
 - (3) Citrus
 - (4) None of these
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Very Short Answer Type Questions

2. Answer the following questions briefly:

(a) Write the full form of IUD.

(b) Who proposed the Chromosomal theory of Inheritance?

(c) How many pairs of contrasting traits were studied by Mendel in pea plants?

(d) What are parthenocarpic fruits?

(e) What do you understand by patent?

Short Answer Type Questions I

3. Answer the following questions briefly:

(a) Draw only the diagram of the structure of an Antibody molecule.

(b) Differentiate between homozygosity and heterozygosity.

(c) Write a short note on productivity.

(d) Explain Mendelian law of segregation.

(e) Describe natural selection in brief.

Short Answer Type Questions II

4. Answer the following questions briefly:

(a) Explain the back cross and test cross.

(b) Describe the structure of seminiferous tubule.

(c) Describe infectious diseases with examples.

(d) Describe the importance of seed and fruit development.

5. Answer the following questions briefly:

(a) Describe the contribution of biotechnology in agriculture.

(b) Write a short note on Mendelism.

(c) Write notes on the following:

(i) Ringworm

(ii) Amoebiasis

(d) Explain symbiosis with suitable examples.

6. Answer the following questions briefly:

(a) Explain competition and parasitism with examples.

(b) When a cross is made between a tall plant with yellow seed (TtYy) and a tall plant with green seed (Tt yy), in what proportion of the following phenotypes could be expected?

(c) Write a note on National Park.

(d) Describe the development of the male gametophyte of an angiospermic plant with a suitable diagram.

Long Answer Type Questions

7. How does fertilization take place in an angiospermic plant? Describe post-fertilization structures and events.

OR Write an essay on human evolution.

8. Answer the following question in detail:

(i) Characteristic features of the structure of double-stranded DNA.

(ii) Components of an ecosystem.

(iii) Human ovum.

OR

Describe the dihybrid cross with a diagram.

9. Answer the following questions briefly:

(i) Genetically Modified (GM) Crops

(ii) Components of a Nucleotide

(iii) In-situ Conservation

OR

What is addiction? Write a note on its ill effects on the young generation and its control measures.
