

MODEL QUESTION PAPER

BIOLOGY

XII – STANDARD (STATE BOARD)

Candidate should answer Part-I (Bio Botany) and Part II (Bio zoology) in separate answer books

PART-I (Bio-Botany)

Maximum Marks: 35

Section I

All Questions are compulsory.

8 x 1 = 8

1	The ratio of recessive epistasis is _____ a) 9:3:4 b) 9:3:3:1 c) 9:6:1 d) 12:3:1	1
2	Ethidium bromide is used in which technique a) Polymerised chain reaction b) southern blotting technique c) Agarose gel electrophoresis d) western blotting technique	1
3	Family of Nilavembu (a) Acanthaceae (b) Euphorbiaceae (c) Lamiaceae (d) Vitaceae	1
4	Parthenocarpic fruits lack (a) Mesocarp (b) Seed (c) Endocarp (d) Epicarp	1
5	The first scientist who used the term heterosis (a) Muller and stadler (b) Cotton Mather (c) G.H.Shull (d) William S Gaud	1
6	Virus free plants produced from (a) Meristem culture (b) Cell suspension culture (c) Organ culture (d) Protoplast culture	1
7	In agroforestry, the major species cultivated for commercial use is (a) Erythrina, Albizzia (b) Malaivembu, Kadambu (c) Sesbania, Acacia (b) (d) Acacia, Azadirachta indica	1
8	Ozone layer present in (a) Troposphere (b) Stratosphere (c) Thermosphere (d) Exosphere	1

Section-II

Answer any four questions.

4 x 2 = 8

9	Define Melitophily	2
10	What is the basic concept of Organic farming?	2
11	What are all the chemicals used in gene transfer?	2
12	Define Co-evolution	2
13	Distinguish primary and secondary introduction	2
14	What is Cybrid?	2

Section-III

Answer any three questions. Question No. 19 is compulsory

3 x 3 = 9

15	Write few points about the functions of tapetum	3
16	Differentiate between niche and habitat	3
17	Draw and label the structure of ovule	3
18	Mention the name of man-made cereal and how it is formed?	3
19	Write a brief note on Cryopreservation	3

Section-IV

Answer all the questions:

2 x 5 = 10

20	a.) Describe about parthenocarpy and write their significance Or b.) Brief about dominant epistasis with example	5
21	a) Explain different types of succession Or b) Define gene mapping and write its uses	5

8	Assertion (A): Snake is a stenotherm. Reason (R): Organism can tolerate narrow temperature fluctuations. (a) Both A and R are correct R explain A (c) A and R are correct, R doesn't explains A	(b) A is correct R is incorrect (d) Both A and R are incorrect.	1
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SECTION-II

Answer any **four questions**.

4 x 2 = 8

9	Mention the differences between spermiogenesis and spermatogenesis.	2
10	Draw and label a gemmule of sponge.	2
11	State Wiener's Hypothesis on Rh-factor.	2
12	Why t-RNA is called an adapter molecule?	2
13	Write notes on (a) Eutrophication (b) Algal Bloom.	2
14	Why Red list is prepared periodically?	2

SECTION-III

Answer any **three questions**

3 x 3 = 9

15	Explain Foetal-ejection reflex.	3
16	Role of Y- chromosome is crucial for maleness – Justify.	3
17	State immunological surveillance theory.	3
18	Write a short note on Pathaneer.	3
19	Elucidate the methodology of ELISA test.	3

SECTION -IV

Answer all the **questions** .

2 x 5 = 10

20	(a) What are IUD's? Explain its way of functioning. Also describe their types. (b) Explain how Urey – Miller's experiment supports the origin of life?	5
21	(a) Discuss any two Allosomal abnormalities in human beings. (b) Explain in detail about various types of extinctions.	5