

INDIAN MATRIC HR.SEC.SCHOOL,G.K.ROAD,HARUR.

I-FULL PORTION-2020-21

STD: XII

MARK : 70

SUB: BIOLOGY

TIME : 3.00HRS

PART-A

BIO-BOTANY (35 MARKS)

I. Choose the correct answer.

8x1=8

1. The scar left by funiculus in the seed is _____
a) tegmen b) radicle c) epicotyl d) hilum
2. Some of the major species cultivated in Agroforestry for commercial use.
a) Malaivembu, Teak b) Acacia, Albizza
c) Sesbania, Acacia d) Gliricidia, Erythrina
3. Match the following
1. Stenothermal - i) Salinity
2. Stenohaline - ii) Temperature
3. Stenohydric - iii) Food
4. Stenophagic - iv) Water
a) 1-ii, 2-I, 3-iv, 4-iii b) 1-iv, 2-ii,3-I, 4-iii
c) 1-iv, 2-I, 3-iii,4-iv d) 1-ii, 2-iv, 3-I, 4-iii
4. The dominant epistasis ratio is _____
a) 9 : 3 :3 :1 b) 12 : 3: 1 c) 9 : 3: 4 d) 9 : 6 : 1
5. Find the wrongly matched pair
a) Digoxin- Cardiac tonic b) Capsaicin-Rheumatic pain treatment
c) Vincristine-Anti-carcinogenic d) Quinine- strongest pain killer.
6. The active principle trans-tetra hydrocannabinol is present in _____
a) Opium b) Curcuma c) Marijuana d) Andrographis
7. Which one is in descending order of a food chain
a) Producer→secondary consumers→primary consumer→Tertiary consumer
b) Tertiary consumers→primary consumers→secondary consumers→ producers
c) Tertiary consumers→Secondary consumers→ Primary consumers→ producers
d) Tertiary consumers→ producers →primary consumers → secondary consumers
8. In which techniques Ethidium Bromide is used?
a) Southern Blotting techniques b) Western Blotting techniques
c) Polymerase chain reaction d) Agrose Gel Electrophoresis

II. Answer any four of the following questions.

4x2=8

9. Define 'SCP'
10. Differentiate bio-medicines and botanical medicines.
11. What is Heterosis?
12. Construct the food chain with following data .
Hawk, plants ,frog, snake, grasshopper
13. Name the enzymes involved in genetic engineering .
14. What are clones?

III. Answer any three of the following questions:

3x3=9

(Question No. 19 is compulsory)

15. What is gene mapping? write its uses.
16. What is P^{BR322} plasmid?
17. What is thermal stratification? Mention their types.
18. Write the three difference between Habitat and niche.
19. Draw and label the structure of ovule.

IV. Answer all the questions:

2x5=10

20. a) Give a detailed account on parthenocarpy . Add a note on its significance.

(or)

b) Mention the name of man-made cereal. How its is formed?

21. a) Give an account of active principle and medicinal values of any two plants you have studied.

(or)

b) Write the differences between primary succession and secondary succession.

PART-B
BIO-ZOOLOGY

I. Choose the correct answer.

8x1=8

1. The androgen Binding protein (ABP) is produced by _____
 - a) Leydig cell
 - b) Hypothalamus
 - c) Sertollicell
 - d) Pituitary gland
2. A marriage between a colourblind man and a normal woman produces
 - a) all carrier daughters and normal sons
 - b) 50% Carrier daughter, 50% normal daughter
 - c) 50% Colour blind sons, 50% normal sons.
 - d) All carrier offsprings.
3. Which is the ideal example for DNA point mutation.
 - a) Klinefeter's syndrome
 - b) Turner's syndrome
 - c) Sickle cell anaemia
 - d) None of these
4. Which period is considered age of invertebrates
 - a) Cambrian
 - b) Silurian
 - c) carboniferous
 - d) Permian
5. Allergy involves
 - a) IgE
 - b) IgG
 - c) IgA
 - d) IgM
6. The most common substrate used in distilleries for the production of ethanol is _____
 - a) Soyameal
 - b) Groundgram
 - c) Molasses
 - d) Bollworms
7. ELISA- is mainly used for _____
 - a) Detection of mutation
 - b) Detection of pathogens
 - c) Selecting animal having desired traits.
 - d) Selecting plants having desired traits.
8. Who introduced the term biodiversity
 - a) Edward wilson
 - b) Walter Rose
 - c) Norman Myers
 - d) Alice Roman

II. Answer any four of the following questions.

4x2=8

9. Define the 'Hotspots'
10. Differentiate Phototropism and photokinesis.
11. What are DNA vaccines.
12. Placenta is an Endocrine tissue. Justify.

III. Answer all the questions.

3x3=9

13. How to control and management of Nuclear (or) radio active waste.
14. Explain how ADA deficiency can be corrected
15. What are the applications of karyotyping

III. Answer all the questions:

2x5=10

16. Write the properties of genetic material (DNA Versur RNA)

(or)

Explain the lac operon model.

17. Describe the major STDs and their symptoms.

(or)

Briefly explain the Birth control method.