

Std: 12th
Time: 1.30

Mark: 35

PART - A

I Answer all the questions: -

8x1=8

- Coleorhiza is found in -----.
a) Paddy b) beans c) pea d) Tridax.
- Nilavembu belongs to the family.
a) Acanthaceae b) Euphorbiaceos c) Vitaceae d) Lamiaceae
- In which techniques Ethidium Bromide is used?
a) Polymerised chain reaction
b) Southern Blotting Techniques
c) Agarose Gel Electrophoresis d) Western Blotting Techniques
- The Dominate Epitasis ratio is.
a) 9:3:4 b) 9:3:1 C) 9:6:1 d) 12:3:1
- Alternative forms of a gene are / is called:
a) Genome b) Alleles c) Genotype d) Genetic code.
- Assertion (A) : Increase in temperature increases the rate of mutation.
Reson (R) : Rise in temperature breaks the hydrogen bonds between the nucleotides
a) (A) is not correct (R) is correct.
b) (A) is correct (R) is not correct.
c) (A) is correct (R) is correct explanation of (A)
d) (A) and (R) are wrong.
- The term Green Revolution was coined by
a) William S.Gaud b) Dr.B.P.Pal c) N.E.Barlang d) M.S.Swaminathan
- The ozone layer of troposphere is called.
a) Middle ozone b) ozone shield c) Bad ozone d) Good ozone

PART - B

II Answer any four of the following question

4x2=8

- Give the types of synapsis.
- Draw and label the parts of Hemi anatropous ovule.
- Name the chemicals used in gene transfer.
- Pyramid of energy is always upright. Give reasons.
- Write any four uses of seed ball.
- Name the humors that are responsible for the health and human beings.

PART - C

III Answer any three of following Questions.

Questions No:19 is Compulsory.

3x3=9

- List out the functions of tapetum .
- Draw and explain the thermal stratification of a pond.
- Mention the name of man-made cereal. How it is formed?
- What are the objectives of clean development mechanism?
- What are the enzymes can use to cut terminal end and internal phosphodiester bond of nucleotide sequence?

PART - D

IV Answer all the question:-

2x5=10

- (a) Explain the different mode of entry of pollen tube into the ovule.
Or
(b) Explain the incomplete dominance with example.
- (a) Write the applications of plant tissue culture .
Or
(b) Ramu and Somu are farmers. Ramu cultivated crops by self. Fertilization method. Somu cultivated the crops from mixed Population.
(i) Who will get new variety?
(ii) Write the advantage and disadvantages of the selection.

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PART – A

I Answer all the question: -

8x1=8

1. ELISA is mainly used for.
a) Selecting animals having desired traits
b) Detection of mutations.
c) Selecting plants having desired traits.
d) Detection of pathogens
2. mRNA molecule is produced by.
a) Duplication b) Replication C) Translation d) Transcription
3. Which of the following was the contribution of Hugo de vries?
a) Theory of inheritance of acquired characters.
b) Theory of mutation.
c) Germplasm theory.
d) Theory of natural Selection
4. Organisms which can survive a wide range of temperature are called.
a) Endotherms b) Ectotherms c) Stenotherms d) Eurytherms
5. The primary treatment of waste water treatment is:
a) Removal of microbes by the application of chlorine
b) Physical removal of solid particles
c) Anaerobic digestion of sludge
d) Large aeration of the water
6. IN a lake. The water is cold and clear, supporting little life. This stage is called as.
a) Mesotrophic b) Eutrophic c) Accelerated eutrophic d) Oligotrophic
7. The mature sperms are stored in the.
a) Epididymis b) Seminiferous tubules c) Prostate gland d) Vas deferens.
8. The Permanent birth control method in males is :
a) Appendectomy b) Vasectomy c) Oral contraceptives d) Tubectomy

PART – B

II Answer any four of the following questions.

4x2=8

9. Define gametogenesis.
10. What is amniocentesis?
11. Write the central dogma of protein synthesis.
12. What is co-extinction?
13. Differentiate Nataly from Mortality.
14. In many parts of Chennai, number of dove increases rather than crow, what type of habitat loss it is ? Define.

PART – C

III Answer any three of the following questions.

Question No.19 is Compulsory

3x3=9

15. Draw a neat labelled diagram of Human sperm.
16. What is pedogenesis? Mention any two of its functions.
17. State the theory of spontaneous generation.
18. List out any five causes of biodiversity loss.
19. If a marriage occurs between normal man ($X^H Y^-$), and heterozygous hemophiliae woman ($X^H X^h$), what would be the result of F_1 and F_2 ? Draw flow chart.

PART – D

IV Answer all the questions: -

2x5=10

20. (a) Explain the Structure of Human Ovum with a neat labelled diagram.
Or
(b) Write the Salient features of Human Genome project.
21. (a) Explain the Structure of immunoglobulin with suitable diagram.
Or
(b) We are polluting water resources. What will be the consequences of Water pollution on organisms?