

FIRST REVISION TEST - 2019

STANDARD - XII

BIOLOGY

BIO BOTANY

PART - I

TOTAL MARKS:70

MARKS:35

TIME : 3.00 HRS

Instructions : 1) Check the question paper for fairness of printing . if there is lack of fairness , inform the Hall supervisor immediately.

2) Use blue or black ink to write and underline and pencil to draw diagram.

I. Choose the correct Answer :-

8 x 1 = 8

- 1) Identify the correctly matched pair
 - a) Tuber - Allum eepa
 - b) Sucker - Pistia
 - c) Rhizome - Musa
 - d) Stolen - Zingiber
- 2) Test cross involves
 - a) Crossing between two genotypes with recessive trait.
 - b) Crossing between two F1 hybrids
 - c) Crossing the F1 hybrid with a double recessive genotype.
 - d) Crossing between two genotypes with dominant trait.
- 3) Plasmids are
 - a) Circular protein molcules
 - b) required by bacteria
 - c) Tiny bacteria
 - d) Confer resistance to antibiotics
- 4) Totipoteny refers to
 - a) Capacity to generate a whole plant from any plant cell
 - b) Capacity to generate genetically identical plants
 - c) Capacity to generate hybrid protoplasts
 - d) Recovery of healthy plants from diseased plants.
- 5) Which of the given plant produces cardiac glycosides ?
 - a) Calotropis
 - b) Acacia
 - c) Nepenthes
 - d) utricularia
- 6) Profundal Zone is predominated by heterotrophs in a pond ecosystem. because of .
 - a) with effective light penetration
 - b) no effective light penetration
 - c) Complete absenece of light
 - d) 'a' and 'b'

- 7) Pick out the pair
- | | | |
|-----------------------|---|---------------------------|
| a) Mass selection | - | Morphological character |
| b) Pureline Selection | - | Repeated self pollination |
| c) Clonal Selection | - | Sexually propagated |
| d) Natural selection | - | Involves nature. |
- 8) Statement A : coffee contains caffeine
Statement B : Drinking coffee enhances cancer
- | | |
|----------------------------------|-----------------------------------|
| a) 'A' is correct ; 'B' is wrong | b) 'A' and 'B' - Both are correct |
| c) 'A' is wrong , 'B' is correct | d) 'A' and 'B' - Both are wrong |

PART - II**ANSWER ANY FOUR OF THE FOLLOWING QUESTIONS :****4 x 2 = 8**

- 9) Which is called as the ' King of Bitters ' ? Mention their medicinal importance.
- 10) Write a note on heterosis .
- 11) Soil formation can be initiated by biological organisms explain how ?
- 12) Write the benefits and risk of Genetically modified Foods.
- 13) What is carbon capture and storage ?
- 14) What is gene mapping ? write its uses.

PART - III**ANSWER ANY THREE QUESTIONS IN WHICH QUESTION NUMBER 19 IS COMPULSORY :****3 x 3 = 9**

- 15) What are restriction enzymes. Mention their types.
- 16) What is phytoremediation ?
- 17) List out the new breeding techniques involved in developing new traits in plant breeding.
- 18) How will you prepare an organic pesticide for your home garden with the vegetables available from your kitchen.
- 19) What are the effects of ozone depletion ?

PART - IV**ANSWER ALL THE QUESTIONS :****2 x 5 = 10**

- 20) Give a concise account on steps involved in fertilization of an angiosperm plant.

(or)

Describe dominant epistasis with an example.

- 21) Write the various steps involved in cell suspension culture.

(or)

Generally human activities are against to the ecosystem, where as you a student how will you help to protect ecosystem ?

BIO ZOOLOGY PART - I

MARKS:35

- Note : 1) Answer all Questions.
2) Choose the correct option. write answer with option.

8 x 1 = 8

I. Choose the correct Answer :-

- 1) The parthenogenetic Egg may develop into individuals of any sex is called _____
 - a) Arrhenotoky
 - b) Amphitoky
 - c) Thelotoky
 - d) Paedogenesis
- 2) Heavy and prolonged menstrual period that disrupts a woman's normal activities is referred to as _____
 - a) Dysmenorrhoea
 - b) Menorrhagia
 - c) Polymenorrhoes
 - d) Chlamydiasis
- 3) the term POCSO means _____
 - a) Prevention of child from Educational offences
 - b) Prevention of Children from Sexual offences
 - c) Prevention , prohibition and redressal.
 - d) Prevention of prenatal diagnostic technique
- 4) Lygaeus type of Sex determination is seen in _____
 - a) Human beings
 - b) Grass hoppers
 - c) Drosophila
 - d) Both 'a' and 'b'
- 5) Which is incorrectly matched :-

a) Phenylketoneuria	-	Chromosome - 12
b) Patau's Syndrome	-	Trisomy - 21
c) One gene one enzyme hypothesis	-	Beadle and Tatum
d) RNA as genetic material in TMV virus	-	Singer
- 6) The wings of Birds and butter flies is an example of _____
 - a) Adaptive radiation
 - b) Divergent Evolution
 - c) Convergent Evolution
 - d) Variation
- 7) Which of the following Ecological pyramids is generally inverted ?
 - a) Pyramid of Biomass in a Sea
 - b) Pyramid of numbers in grassland
 - c) Pyramid of energy
 - d) Pyramid of Biomass in a forest

- 8) The LSD is comes under drugs group _____
- a) Stimulants
b) Hallucinogen
c) Depressants
d) Cannabis

PART - II

ANSWER ANY FOUR OF THE FOLLOWING QUESTIONS :

4 x 2 = 8

- 9) What is meant by crytoxin ?
- 10) Differentiate somatic cell gene therapy from Germ line gene therapy ?
- 11) Name the copper releasing IUDS ?
- 12) Why scrotum act as a theromoregulator ?
- 13) What is meant by colony collapse syndrome ?
- 14) What are DNA vaccines ?

PART - III

ANSWER ANY THREE QUESTIONS IN WHICH QUESTION NUMBER 19 IS
COMPULSORY :

3 x 3 = 9

- 15) Explain morphallaxis and Epimorphosis .
- 16) What is meant by Braxter - Hick's contractions.
- 17) What are the applications of karyotyping ?
- 18) PCR is a Useful tool for early diagnosis of an Infectious disease. Elaborate.
- 19) Role of Cylosporin 'A' and statins.

PART - IV

ANSWER ALL THE QUESTIONS :

2 x 5 = 10

20) Explain :

- a) Lactational amenorrhoea
b) Note on MTP

(OR)

Modern synthetic theory of Evolution.

21) Explain :

- a) Bio magnification
b) Causes and effects of ozonelayer depletion.

(or)

Tabulate any five bacterial disease ?

[Causative agent , Site of infection , Transmission , Symptoms]

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