

First Revision Test 2024

12 Biology

Bio Botany

Time : 1.30

Mark : 70

Part - A

I. Answer all the questions.

8X1= 8

- Identify the incorrect pair
 - sporopollenin - exine of pollen grain
 - tapetum – nutritive tissue for developing microspores
 - Nucellus – nutritive tissue for developing embryo
 - obturator – directs the pollen tube into micropyle
- Which of the following sentences are correct?
 - The offspring exhibit only parental combinations due to incomplete linkage
 - The linked genes exhibit some crossing over in complete linkage
 - The separation of two linked genes are possible in incomplete linkage
 - Crossing over is absent in complete linkage
 - 1 and 2
 - 2 and 3
 - 3 and 4
 - 1 and 4
- Match the following :

	Column A		Column B
1	Exonuclease	a	add or remove phosphate
2	Endonuclease	b	binding the DNA fragments
3	Alkaline Phosphatase	c	cut the DNA at terminus
4	Ligase	d	cut the DNA at middle

	1	2	3	4
a	a	b	c	d
b	c	d	b	a
c	a	c	b	d
d	c	d	a	b
- Cryopreservation means it is a process to preserve plant cells, tissues or organs
 - at very low temperature by using ether.
 - at very high temperature by using liquid nitrogen
 - at very low temperature of -196 by using liquid nitrogen
 - at very low temperature by using liquid nitrogen
- Example For Eurythermal organism.
 - Terrestrial Angiosperms
 - Terrestrial Gymnosperms
 - Marine Angiosperms
 - Marine Gymnosperms
- Which one is in descending order of a food chain
 - Producers → Secondary consumers → Primary consumers → Tertiary consumers
 - Tertiary consumers → Primary consumers → Secondary consumers → Producers
 - Tertiary consumers → Secondary consumers → Primary consumers → Producers
 - Tertiary consumers → Producers → Primary consumers → Secondary consumers
- One of the chief reasons among the following for the depletion in the number of species making endangered is
 - over hunting and poaching
 - green house effect
 - competition and predation
 - habitat destruction
- Bedsore and infected wounds are cured by
 - Acalypha
 - Cissus
 - Ocimum
 - Phyllanthus

Part - B

II. Answer any Four questions.

4X2= 8

- A detached leaf of Bryophyllum produces new plants. How?
- What are multiple alleles ?
- How will you identify a vectors?
- Name of the food chain which is generally present in all type of ecosystem. Explain and write their significance.
- What is entomo pathogenic fungus to be control damping off disease of which plant?
- What is pseudo cereal? Give an example.

Part - C

III. Answer any Three questions. Question Number 19 is compulsory.

3X3= 9

- What are the reasons for Mendel's successes in his breeding experiment?
- Is there any possibilities to transfer a suitable desirable gene to host plant without vector ? Justify your answer.
- What is mutualism? Mention any two examples where the organisms involved are commercially exploited in modern agriculture.
- Discuss the gross primary productivity is more efficient than net primary productivity.
- How are microbial inoculants used to increase the soil fertility?

Part - D

IV. Answer all the questions.

2X5= 10

- Write short note on Heterostyly [or]
 - Mention the name of man-made cereal. How it is formed?
- How will you avoid the growing of microbes in nutrient medium during culture process? What are the techniques used to remove the microbes?
[or]
 - If a person drinks a cup of coffee daily it will help him for his health. Is this correct? If it is correct, list out the benefits.

Bio - Zoology
Part - A

I Choose the best answer.

8 X 1 = 8

1. The male homologue of the female clitoris is
a) scrotum b) penis c) urethra d) testis
2. Multiload 375 is a
a) copper releasing IUD b) intrauterine device
c) hormone releasing IUD d) non - medicated device
3. Which of the following phenotypes in the progeny are possible for the parental combination A X B?
a) A and B only b) A, B and AB only c) AB only d) A, B, AB and O
4. Which of the following is the correct sequence of event with reference to the central dogma?
a) Transcription, Translation, Replication b) Transcription, Replication, Translation
c) Duplication, Translation, Transcription d) Replication, Transcription, Translation
5. The wings of birds and butterflies is an example of
a) adaptive radiation b) Convergent evolution
c) divergent evolution d) variation
6. The pupose of biological treatment of waste water is to
a) reduce BOD b) increase BOD c) reduce sedimentation d) increase sedimentation
7. refers to a stem cell that has the potential to differentiate into any of the three germ layers.
a) Totipotency b) pluripotency c) multipotency d) oligopotency
8. Predation and parasitism are which type of interactions?
a) (+, +) b) (+, 0) c) (-, -) d) (+, -)

Part - B

II Answer any four questions.

4 X 2 = 8

9. What is lactational amenorrhoea?
10. State Fisher and Race hypothesis.
11. Differentiate nucleotide and nucleoside.
12. Define antibiotics.
13. What do you mean by carrying capacity?
14. What are called Hotspots?

Part - C

III Answer any three questions. Q.No. 19 is compulsory.

3 X 3 = 9

15. State the difference between identical and Fraternal twins.
16. Write down the applications of DNA finger printing technique.
17. Mention any three advantages and disadvantages of animal cloning.
18. Anatomical barriers serve as innate immunity. Justify.
19. Briefly describe about microbial fuel cell.

Part - D

IV Answer the following question.

2 X 5 = 10

20. a) What is syngamy? Explain the kinds of syngamy with example. **(OR)**
b) Trace the evolution of man.
21. a) Explain the ways of that help to prevent drug and alcohol abuse. **(OR)**
b) What are the effects of air pollution? Write about the control measures of air pollution.

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