

VNR12Bio

Virudhunagar District
Second Revision Examination - 2024**Standard 12****BIOLOGY****Part - I (Bio-Botany)****Section-1**

Time: 3.00 Hours

Marks: 70

Marks: 35

Answer all questions.**8x1=8**

- 1) Size of pollen grain in myosotis
a) 10 micrometer b) 20 micrometer c) 200 micrometer d) 2000 micrometer
- 2) In the single gene affects multiple traits and alters the phenotype of the organism
a) Lethal genes b) Pleiotropy c) Epistatic d) Hypostatic
- 3) Which of the following sentences are correct
1. The offspring exhibit only parental combinations due to incomplete linkage
2. The linked genes exhibit some crossing over in complete linkage
3. The separation of two linked genes are possible in incomplete linkage
4. Crossing over is absent in complete linkage
a) 1 and 2 b) 2 and 3 c) 3 and 4 d) 1 and 4
- 4) Match the following
1) Ti plasmid - i) Antibiotics
2) Biolistic method - ii) Agrobacterium tumefaciens
3) Lac - z - iii) Tungston particles
4) Kanamycin - iv) B-galactosidase
1 2 3 4
a) i ii iv iii
b) iv iii i ii
c) ii iii iv i
d) iv iii ii i
- 5) Pedogenesis refers to
a) Water b) fossils c) population d) soil
- 6) Significance of food web is/are
a) it does not maintain stability in nature b) it shows patterns of energy transfer
c) it explains species interaction d) b and c
- 7) Jaya and Ratna are the semi dwarf varieties of
a) Wheat b) Rice c) Cow pea d) Mustard
- 8) Which of the following matches is correct
a) Palmyra - Nature of Brazil
b) Saccharum - Abundant in Kanya Kumari
c) Stevia - Natural Sweetener
d) Palmyra sap - Fermented to give ethanol

Section-2**Answer any four of the following :****4x2=8**

- 9) Differentiate primary introduction from secondary introduction
- 10) What are the objectives of clean development mechanism
- 11) Give any one example for ecological equivalents
- 12) What do you mean Embryoids?
- 13) Write short notes on Sonara 64
- 14) What is endothelium?

Section-3**Answer any three of the following. Q.No. 19 is compulsory.****3x3=9**

- 15) Write short note on pollen kit.
- 16) $P \quad 2n = 4x = 28 \times 2n = 2x = 14$

$$G \quad \boxed{A} \quad n = x = 7$$

A) Write the state of gamete

$$2n = 3x = 21$$

B

B) Write the name of plant

- 17) Write any three disadvantages of Bt cotton
- 18) What is referred to as biological indicators? Give an example.
- 19) Which one of the chemical substance is responsible for the yellow colour of turmeric? Mention the uses of that chemical substance.

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Section-4**Answer all the questions.****2x5=10**

- 20) a) What are millets? What are its Types? Give an example for each type add a note on its one uses (OR)
 b) List out the types of Ecosystem with examples.
- 21) a) Differentiate continuous variation with discontinuous variation. (OR)
 b) Draw and label the T.S. of mature anther.

Part - I (Bio-Zoology)

Marks: 35

Section-1**Answer all questions.****8x1=8**

- 1) The mode of sexual reproduction in bacteria is by
 a) formation gametes b) Endospore formation
 c) conjugation d) Zoospore formation
- 2) Right to clean water is a fundamental right, under the Indian constitution
 a) Article 12 b) Article 21 c) Article 31 d) Article 41
- 3) Match the following and choose the correct combination from the options given below.

Column 1**Column 2**

- | | |
|-----------------|--|
| A) Mutualism | 1. Lion and deer |
| B) Commensalism | 2. Roundworm and Men |
| C) Parasitism | 3. Birds compete with squirrels for nuts |
| D) Predation | 4. Barancles attached to whales |
- a) A-4, B-5, C-2, D-3, E-1 b) A-3, B-1, C-4, D-2, E-5
 c) A-2, B-3, C-1, D-5, E-4 d) A-5, B-4, C-2, D-3, E-1
- 4) The purpose of biological treatment of waste water is to
 a) Reduce BoD b) Increase BoD
 c) Reduce sedimentation d) Increase sedimentation
- 5) 30 year old women has bleedy diarrhoea for the past 14 hours, which one of the following organism is likely to cause this illness?
 a) streptococcus pyogene b) clostridium difficile
 c) shigella dysenteriae d) salmonella entertidis
- 6) The first life on earth orginated
 a) in air b) on land c) in water d) on mountain
- 7) ABO Bloodgroup in man in controlled by
 a) Multiple alleles b) Lethalgenes
 c) sex linked genes d) y-linked genes
- 8) Which one of the following groups includes sexually transmitted disease caused by bacteria only?
 a) syphillis, gonorrhoea and candidiasis b) syphillis, Chlamydisias and gonorrhoea
 c) syphillis, gonorrhoea, and trichomniasis d) syphillis, trichomoniasis and Pediculosis.

Section-2**Answer any four of the following questions.****4x2=8**

- 9) What is the composition of semen?
 10) Classify the adaptive traits found in organisms
 11) What is Parthenogenesis? Give an example?
 12) XXY - male write the short notes about this syndrome.
 13) When does antibiotic resistance develop?
 14) Define endemism

Section-3**Answer any three of the following. Q.No. 19 is compulsory.****3x3=9**

- 15) How does neoanderthal man differ from the modern men in appearance?
 16) Name and explain the type of barriers which involve macrophages?
 17) What are transgenic animals? Give an example?
 18) What effect can fertilizer to runoff have on an aquatic ecosystem?
 19) Which method do you suggest the couple to have a body, if the male partner fails to inseminate the female or due to very low sperm count inthe ejauclets? Explain.

Section-4**Answer all the Questions.****2x5=10**

- 20) What are the strategies to be implemented in India to attain total reproductive health? (OR)
 It is established that RNA is the first genetic material. Justify giving reasons.
- 21) Explain the major source of solid waste? (OR)
 List the common withdrawl symptoms of drugs and alcohol abuse.