

HALF YEARLY EXAMINATION - 2024**CLASS: XI****BIOLOGY**Reg.No

Time : 3.00 Hours

BIO-BOTANY**MAX MARKS : 70****MARKS : 35****SECTION-I****Answer all the Questions.****8x1=8****Note : Choose the most correct answer from the given four alternatives and write the option code**

- Seed dormancy allows the plants to _____
a) Overcome unfavourable climatic conditions b) Develop healthy seeds
c) Reduce viability d) Prevent deterioration
- Vexillary aestivation is characteristic of the family.
a) Fabaceae b) Asleraceae c) Solanaceae d) Brassicaceae
- Identify the correct statement.
(i) Sulphur is essential for amino acids Cystine and Methionine
(ii) Low level of N.K.S and Mo affect the cell division.
(iii) Non - leguminous plant *Alnus* which contain bacterium *Frankia*
(iv) Denitrification carried out by nitrosomonas and nitrobacter
(a) i, ii are correct (b) i, ii, iii are correct (c) i only correct (d) All are correct
- Assertion (A) : Polytene chromosomes observed in the Salivary gland of *Drosophila* by E.G. Balbiani.
Reason (R) : A Single chromosomes which is present in multiple copies form a structure called Polytene chromosome.
(a) A is true but R is false b) R is true but A is false c) Both A and R is false d) Both A and R is true
- Match.

Algae	Shape of chloroplast	a) i - d	ii - c	iii - a	iv - b
i) Spirogyra	- a. Stellate	b) i - c	ii - d	iii - b	iv - a
ii) Zygnema	- b. Reticulate	c) i - b	ii - c	iii - a	iv - d
iii) Chlamydomonas	- c. Spiral	d) i - c	ii - a	iii - d	iv - b
iv) Oedogonium	- d. Cup				
- Grafting is successful in dicots but not in monocots because the dicots have
a) Vascular bundles arranged in a ring b) Cambium for secondary growth
c) Vessels with elements arranged end to end d) Cork cambium
- What type of transpiration is possible in the Xerophytes *Opuntia*?
a) Stomatal b) Lenticular c) Cuticular d) All the above
- For every CO_2 molecule entering the C_3 cycle, the number of ATP & NADPH required
a) 2ATP + 2NADPH b) 2ATP + 3NADPH c) 3ATP + 2NADPH d) 3ATP + 3NADPH

SECTION-II**Answer any FOUR of the following.****4X2=8**

- Give a brief account on Programmed Cell Death.
- What are Magnetosomes?
- What is Amber? Which group of plants producer Amber?
- Respiratory quotient is zero in succulent plants. Why?
- If the concentration of salt in the soil is too high and the plants may will even if the fields is thoroughly irrigated. Why?
- Give two examples for insectivorous mode of nutrition in angiosperms.

SECTION-III**Answer any THREE of the following. Question number 19 is compulsory.****3X3=9**

- The nitrogen is present in the atmosphere in huge amount but higher plants fail to utilize it Why?
- Give short notes - Cladode.
- Proskauer classified Bryophytes in to 3 classes What are they?
- Identify the following diagram and write this name.
- What is Plasmodesmata? Write its function.

**SECTION - IV****Answer all the question in detail****2x5=10**

- (a) Write any five economic importance of family Fabaceae. [OR]
(b) Write the properties of enzyme.
- (a) Draw the flow chart of EMP pathway. [OR]
(b) Write merits and demerits of five kingdom classification.

M Poovarasam M.Sc B.Ed
PG Asst in chemistry
Dharmapuri district
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BIO-ZOOLOGY**MARKS : 35****SECTION - I****8x1=8****I Choose the correct answer:**

1. Molecular taxonomic tool consists of .
 - a) DNA and RNA
 - b) Mitochondria and Endoplasmic reticulum
 - c) Cell wall and Membrane proteins
 - d) All the above
2. Prevention of substances from leaking across the tissue is provided by
 - a) Tight junction
 - b) Adhering junction
 - c) Gap junction
 - d) Elastic junction
3. Which of the following statement is correct
 - a) The inner wall of small intestine has many folds called gastric rugae
 - b) The wall of the duodenum has Brunner's glands which secrete mucus and enzymes.
 - c) The jejunum is the longest part of the small intestine.
 - d) The wall of the large intestine bears crypts between the base villi called crypts of Leiberkuhn
4. Dub sound of heart is caused by
 - a) Closure of atrio-ventricular valves
 - b) Opening of semi-lunar valves
 - c) Closure of semi-lunar valves
 - d) Opening of atrio-ventricular valves
5. Choose the wrong pair from the following
 - a) Acoelomates - Flatworms
 - b) Pseudocoelomates - Round worms
 - c) Schizocoelomates - Hemichordates
 - d) Enterocoelomate - Chordates
6. Appendicular skeleton is
 - a) girdles and their limbs
 - b) vertebrae
 - c) skull and vertebral column
 - d) ribs and sternum
7. Which of the following statement is incorrect
 - a) Growth hormone is also known as somatotropic hormone or Somatotropin.
 - b) Follicle stimulating hormone regulates the functions of the gonads (ovary and testis).
 - c) Luteotropic hormone stimulates milk secretion after the child birth in females.
 - d) Oxytocin is called as anti-diuretic hormone.
8. Silk is obtained from
 - a) Laccifer lacca
 - b) Nosema bombycis
 - c) Attacus ricini
 - d) Attacus mylitta

SECTION - II**II Answer any 4 questions.****4X2=8**

9. Differentiate between probiotics and pathogenic bacteria.
10. Why Areolar connective tissue is called as tissue fluid?
11. Why are villi present in the intestine and not in the stomach?
12. What is cardiac output?
13. Cornea transplant in humans is almost never rejected. State the reason.
14. Define : cross breeding.

SECTION - III**III Answer any 3 questions. Question No.19 is compulsory.****3x3=9**

15. Compare closed and opened circulatory system.
16. How does the male frog attract the female for mating?
17. Name the respiratory organs of flatworm, earthworm, fish, prawn, cockroach and cat.
18. Specify the symptoms of acromegaly.
19. Classify the animals depending on the ability to tolerate changes in the external environment.

SECTION - IV**IV Answer all the questions.****2X5=10**

20. Write the rules of Nomenclature. (OR)
Explain the female reproductive system of frog.
21. Explain the sliding - filament theory of muscle contraction. (OR)
Explain the life cycle of bombyx mori.