

Class : 11Register
Number

00208

COMMON HALF YEARLY EXAMINATION - 2024 - 25

Time Allowed : 3.00 Hours]

BIOLOGY

[Max. Marks : 70

Part - I (Bio-Botany) (Marks : 35)

SECTION - INote. (i) Answer All the questions. **YouTube/ Akwa Academy**

8×1=8

(ii) Choose the most appropriate answer from the given four alternatives and write the option code and corresponding answer.

- Identify the Archaeobacterium
a) Acetobacter b) Erwinia c) Treponema d) Methanobacterium.
- In gymnosperms endosperm is formed
a) At the time of fertilization b) Before fertilization
c) After fertilization d) Along with the development of Embryo
- Vexillary aestivation is characteristic of the family.
a) Fabaceae b) Asteraceae c) Solanaceae d) Brassicaceae.
- The sub units of prokaryotic ribosomes is
a) 40S + 60S b) 70S + 30S c) 60S + 30S d) 30S + 50S
- The correct sequence in cell cycle is
a) S-M-G1-G2 b) S-G1-G2-M c) G1-S-G2-M d) M-G-G2-S.
- The common bottle cork is a product of
a) Xylem b) Phellem c) Vascular bundle d) Phellogen.
- For every CO₂ molecule entering the C₃ cycle, the number of ATP & NADPH required.
a) 2 ATP + 2 NADPH b) 2 ATP + 3 NADPH c) 3 ATP + 2 NADPH d) 3 ATP + 3 NADPH
- In uni sexual plants, sex can be changed by the application of
a) Ethanol b) Cytokinins c) ABA d) Auxin

SECTION - II

II. Answer any four questions.

4×2= 8

- What is prion?
- What do you infer from the term pycnoxylic?
- Draw the plant cell and label it.
- Define Enzyme. *Enzyme is a biological catalyst and*
- What is Plasmolysis?
- What is Bolding?

SECTION - III

III. Answer any three questions.(Q.N. 19.is compulsory)

3×3= 9

- Write the importance of Mycorrhizae.
- What is author citation.?
- Differentiate between Sap wood and Heart wood.
- Write a note on Hydroponics.
- What are the physiological effects of Gibberellins.

SECTION - IV

IV. Answer all the questions.

2×5=10

- Explain the different types of Placentation with example.

(OR)

Write the floral description of Clitoria ternatea.

- Make a chart of Glycolysis pathway (EMP pathway).

(OR)

What are differentiate between cyclic and Non cyclic photophosphorylation.

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PART – II (BIO-ZOOLOGY) (Max. Marks: 35)

SECTION - I

Note: 1. Answer all the questions

2. Choose the most suitable answer from the given four alternatives and write the option code and the corresponding answer

8x1=8

1. Molecular taxonomic tool consists of
 - a) DNA and RNA
 - b) Mitochondria and Endocoplamic reticulum
 - c) Cell wall and Membrane proteins
 - d) All the above
2. Enterokinase takes part in the conversion of
 - a) Pepsinogen into pepsin
 - b) Trypsinogen into trypsin
 - c) Protein into polypeptide
 - d) Caseinogen into casein
3. Vital capacity is
 - a) TV + IRV
 - b) TV + ERV
 - c) RV + ERV
 - d) TV + IRV + ERV
4. Angiotensinogen is synthesized by
 - a) Glomerulus
 - b) Atrial cell of heart
 - c) Liver
 - d) adrenal cortex
5. ATPase enzyme needed for muscle contraction is located in
 - a) actinin
 - b) troponin
 - c. myosin
 - d. actin
6. Sleep and wake cycle is regulated by
 - a) Pituitary gland
 - b) Thalamus
 - c) Pineal body
 - d) Hypothalamus
7. The structure which connects the hypothalamus with anterior lobe of pituitary gland is the
 - a) Dendrites of neuro hypophysis
 - b) Axons of neurohypophysis
 - c) Bands of white fibers from cerebellar region
 - d) Hypophyseal portal system
8. Isinglass is used in
 - a) Preparation
 - b) Clearing of wines
 - c) Distillation of wines
 - d) Preservation of wines

SECTION - II

II. Answer any four of the following questions.

4x2=8

9. What is Tautonymy?
10. Some epithelia are pseudostratified. What does this mean?
11. Define - BMI
12. What are heart sounds? Where and how are these sounds produced?
13. What is Blind spot?
14. Write the functions of (CCK) Cholecystokinin.

SECTION - III

III. Answer any three of the following questions. Question No. 19 is Compulsory.

3x3=9

15. Differentiate Protostomia and Deuterostomia.
16. Why do you call cockroach a pest?
17. How the body makes long – term adjustments when living in high altitude?
18. Differentiate cortical nephrons from medullary nephrons.
19. What are the advantages of artificial insemination?

SECTION - IV

IV. Answer the following questions.

2x5=10

20. Differentiate the Chordate animals from non-chordate animals.

OR

Enumerate the schematic presentation of muscle contraction.

21. Explain the sensory receptors present in the skin

OR

Discuss the various techniques adopted in cattle breeding?

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