

CODE: S8BY101

Roll No.

KENDRIYA VIDYALAYA SANGATHAN, PATNA REGION
SESSION ENDING EXAMINATION, 2018-19

CLASS - XI 296
Sl. No.
BIOLOGY

[MAX. MARKS - 70

TIME - 3 HOURS]

General Instructions :

- (i) All questions are compulsory.
- (ii) The question paper consists of four sections A, B, C and D.
Section A contains 5 questions of 1 mark each
Section B contains 7 questions of 2 marks each
Section C contains 12 questions of 3 marks each
Section D contains three questions of 5 marks each
- (iii) There are no overall choice. However an internal choice has been provided in one question of two marks, two questions of 3 marks and all the three questions of 5 marks.
- (iv) Whenever necessary draw a neat and properly labelled diagram.

SECTION - A

1. Which organism causes red tides ?
2. What is metagenesis ? Mention one example which exhibits this phenomenon ?
3. How polysomes are formed ? Write its function.
4. Name the Pores through which guttation occurs.

OR

- which is the first product of C_4 cycle.
5. Which Pigments forms the reaction centre in photosynthesis ? [Turn Over

SECTION - B

6. What do you mean by following terms :
- (a) Apocarpous and syncarpous ovary
 - (b) Racemose and cymose inflorescence
7. Why is abscisic acid also known as stress hormone ?
8. Terrestrial animals are generally either ureotelic or uricotelic not ammonotelic, why ?
9. Why SA node is known as pacemaker of human heart ? Where is it located ?

OR

What do you mean by ECG ? P wave and T wave indicates what in ECG ?

10. Who proposed cell theory ? Enumerate cell theory.
11. Write the function of following :
- (a) GLUT 4
 - (b) Gamma globulin
12. Name the stage of cell cycle at which each of the following events occur :
- (a) Chromosomes are arranged on equator
 - (b) Centromere splits and chromatids separate
 - (c) Pairing between human organs chromosomes take place
 - (d) Crossing over takes place between human organs chromosomes

SECTION - C

13. How is cyclic phosphorylation different from non cyclic phosphorylation ?
14. Answer the following :
- (a) Name the factors responsible for "ascent of sap" in plants.
 - (b) Differentiate between passive and active transport.
 - (c) What do you mean by apoplast and symplast pathways ?

OR

A section of root nodules of chickpea plant appears pink

- (i) What is this colour due to ?
- (ii) What type of condition does this pigment create in the nodule ?
- (iii) Name the enzyme that helps in the process of biological nitrogen fixation in the root nodules.

15. Briefly explain the Calvin cycle/ C₃ Cycle.

16. Name three major kinds of cells found in the gastric gland. Write function of each cell.

17. Define the following with reference to breathing :

- (a) Tidal volume (b) Residual volume (c) Vital capacity

18. A patient was complaining of frequent urination, excessive thirst, hunger and tiredness. His fasting blood glucose level was found higher than 140 milligram per decilitre on two occasions :

- (a) Name the disease.
- (b) Give the root cause of this disease.
- (c) Explain why the blood glucose level is higher than 140 milligram per decilitre ?

19. Match the following :

- | | |
|----------------|---|
| (a) Cristae | (i) Flat membranous sacs in stroma |
| (b) Cisternae | (ii) Infoldings in mitochondria |
| (c) Thylakoids | (iii) Disc shaped sacs in golgi apparatus |

20. Briefly explain modifications of leaves.

21. Differentiate between :

- (a) Heartwood and sapwood
- (b) Open vascular bundle and closed vascular bundle
- (c) Exarch and endarch

22. Draw a labelled diagram of alimentary Canal of a cockroach (4 Labelling)
23. Mention any six distinguish features of Class Pisces.
24. Name the type of fertilization that is unique to angiosperms. Describe it.

OR

Describe the different life cycle patterns shown by plants.

SECTION - D

25. Explain briefly the prophase I of meiosis with suitable diagram.

OR

What do you mean by following

- (a) Micro molecules and macromolecules
- (b) Nucleoside and nucleotides
- (c) Saturated and unsaturated fatty acid
- (d) Acidic amino acid and basic amino acid
- (e) DNA and RNA

26. What is glycolysis ? Where in the cells does it occurs ? Give flowchart to show the end product of glycolysis.

OR

Explain the major steps of Krebs cycle with suitable diagram. Where does this process occur in a Cell ?

27. What is synapse ? How is the nerve impulse transmitted across a synapse ?

OR

Draw a diagram of the vertical section of human eye and label it. Name the photoreceptors of the retina. How are they functionally different ?

