

HALF YEARLY EXAMINATION 2019 -20

CLASS XI

FIRST SHIFT

BIOLOGY (044)

Time - 3 hrs.

M. M. 70

GENERAL INSTRUCTIONS -

1. All questions are compulsory. In all there are 27 questions.
2. This question paper consists of four sections A, B, C, and D. Section A contains 5 questions of one marks each, section B is of 7 questions of two marks each, section C is of 12 questions of three marks each, and section D consists of 3 questions of 5 marks each.
3. There is no overall choice. However an internal choice has been provided in a few questions. A student has to attempt only one of the alternatives in such questions.
4. Where ever necessary, the diagrams drawn should be neat and properly labelled.

SECTION - A (1 X 5 = 5)

1. Give the scientific term for the system in which an organism is given two names.
2. Which type of bacteria are involved in the formation of biogas and sewage treatment?

OR

Why Euglenoids are called mixotrophs?

3. Mention only one morphological feature that can help us differentiate monocot root from dicot root by looking externally.
4. Name the stage of cell cycle at which chromosomes move to the equator.

OR

Name two cell organelles which contain their own DNA.

5. Which group of vascular plants doesn't bear seeds?

SECTION -B (2 X 7 = 14)

6. Who for the first time introduced the word taxon? Give its definition and one example.

7. Name four major groups of Protozoa.

OR

Name four major groups of fungi.

8. Give examples where the four daughter cells from meiosis are equal in size and where they are unequal in size.

9. Name the type of cell division associated with the following -

- (a) growth and repairs, (b) gamete formation,
(c) mixing of maternal and paternal DNA, and (d) cancer.

10. How important is the presence of air bladder in Pisces?

OR

What is the benefit of pneumatic bones to birds?

11. Name the following -

- (a) the monomer subunits which form Nucleic acid/s.
(b) the important energy carrier in the cell.

12. Mention two differences between syngamy and triple fusion.

SECTION - C (3 X 12 = 36)

13. Identify and write the correct sequence/s of taxonomical categories in your answer book. Also justify your answer by giving correct reason/s.

- (a) Species Order Phylum Kingdom
- (b) Genus Species Order Kingdom
- (c) Species Genus Order Phylum

14. Find the odd one in each series, write in your answer scrip and justify your answer by giving suitable reason -

- (a) Areolar tissue; blood; neuron; tendon
- (b) RBC; WBC; platelets; cartilage
- (c) Exocrine; endocrine; salivary gland; ligament

15. Match the items given in column I with given in column II and then write correct option opposite to each item of column I.

Column I

Column II

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

16. What are taxonomic aids? Name any four of the taxonomic aids you know.

OR

What is herbarium? Write its two significance?

17. What are the three reasons that made the arthropods largest group of the animal kingdom?

18. Is mitosis possible without DNA replication in S phase? Justify your answer.

OR

Is DNA replication possible without cell division? If yes explain how with one example?

19. Distinguish between intracellular and extracellular digestion in five points with one example each.
20. There are three demerits of five kingdom system of classification. List them.
21. Draw well labelled, nice, neat and clean diagram of internal structure of chloroplast. (1 for correct diagram + 2 marks for complete and correct labelling)

OR

Draw well labelled, nice, neat and clean diagram of internal structure of mitochondria. (1 for correct diagram + 2 marks for complete and correct labelling)

22. Name the stage of cell cycle at which one of the following events occur -

- (i) Centromere splits and chromatids separate
- (ii) Pairing between homologous chromosomes takes place
- (iii) Crossing over between homologous chromosomes takes place

23. What are the following and where do you find them in animal body?

- (a) Chondriocytes,
- (b) Axons, and
- (c) Ciliated epithelium.

24. Explain briefly the following terms with suitable examples -

- (i) protonema
- (ii) antheridium
- (iii) archegonium

OR

- (i) diplontic
- (ii) sporophyll
- (iii) isogamy

SECTION - D (5 X 3 = 15)

25. Describe various types of Simple epithelial tissues with the help of labelled diagrams. You may clarify your answer with the help of diagrams.

OR

Explain different types of muscular tissue with suitable diagram of each type of muscular tissue.

26. What is a centromere? How does the position of centromere form the basis of classification of chromosomes. Support your answer with a diagram showing the position of centromere on different types of chromosomes.

OR

Describe the various stages of mitosis with suitable diagrams.

27. Define secondary growth. Explain the process of secondary growth in the stem of woody angiosperms with the help of suitable diagrams.

OR

(a) Which type of mouth parts are found in cockroach. (b) Write the function of (i) gizzard, (ii) hepatic caeca, (iii) malpighian tubule. (c) Draw a nice, well labelled, neat and clean diagram of alimentary canal of cockroach.

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