

LIONS SCHOOL MIRZAPUR
HALF YEARLY EXAMINATIONS 2021-22
TERM -1

Class--XI

MM.70

Subject- BIOLOGY

GENERAL INSTRUCTIONS:

- (i) All questions are compulsory.
- (ii) The question paper has four sections: Section A, Section B, Section C and Section D. There are 33 questions in the question paper.
- (iii) Section-A has 18 questions of 1 mark each and 02 case-based questions. Section-B has 9 questions of 2 marks each. Section-C has 5 questions of 3 marks each and Section-D has 3 questions of 5 marks each.
- (iv) There is no overall choice. However, internal choices have been provided in some questions. A student has to attempt only one of the alternatives in such questions. Wherever necessary, neat and properly labeled diagrams should be draw.

SECTION A

- Q.1 Name the site of synthesis of glycoprotein and glycolipids in a cell. 1
- Q.2 Name the cells produced by Mega Karyocytes in our body. What function do the cells perform? 1
- Q.3 Name two pteridophyte where the sporophylls are organize into cone? 1
- Q.4 What are phycocolloids .name two of them? 1
- Q.5 Why do cartilaginous fish have to swim constantly? 1
- Q.6 Name one plant of Liliaceae as a source of 1
i)colchicine ii) Medicine
- Q7. What type of placentation is seen in the ovary of 1
i)Argemone and ii) Citrus
- Q.8What is the function of middle lamella 1
- Q.9. Give one-word scientific term for each of the following: 1
(i) Blood filled body cavity in arthropod
(ii) Free floating phase of cnidaria
- Q.10 What are predaceous fungi? give an example 1

Assertion type question

These questions consist of two statements each printed as Assertion and Reason. While answering these questions you are required to choose any one of the following four responses. 1x4=4

- A. If both assertion and reason are true and Reason is correct explanation of Assertion.
- B. If both Assertion and Reason are true but Reasons are not correct explanation of Assertion.
- C. If assertion is true but Reason is false.
- D. If both Assertion and Reason are false.

11Q.Assertion- Cyanobacteria are blue-green alga with prokaryotic structure 1

Reason -They are green due to presence of chloroplast

Q12.Assevation- There is no chance of transmission of malaria to man on the bite of a female anopheles' mosquito 1

Reason- It carries a non-virulent strain of plasmodium

13Q.Assevation- Protozoa are not included in kingdom animalia 1

Reason- They are unicellular eukaryotic.

14Q.Assertion- In many gastropod a the anus and mantle cavity placed anteriorly above the head 1

Reason- During embryonic development in many gastropods one side of the visceral mass grows faster than the other side

15Q Read the following and answer any four questions: (1x4)=4

The detailed structure of the membrane was studied only after the advent of the electron microscope in the 1950s. Meanwhile, chemical studies on the cell membrane, especially in Hwan red blood cells (RBCs), enabled the scientists to deduce the possible structure of the plasma membrane. These studies showed that the cell membrane is composed of lipids, proteins and carbohydrates.

i) Which component of the plasma membrane is arranged as a bilayer?

- a) Nucleic acid
- b) Lipid
- c)Protein
- d) Carbohydrate

ii) The cell recognition and adhesion in a cell is due to component of plasma membrane these components are

- a) Protein molecules alone
- b) Lipid's molecule alone
- c) Both protein and lipids molecule
- d) Glycoprotein

iii) The ratio of lipids and proteins in biological membrane is

- a) 0.5: 2
- b) 1: 0.5
- c) 1: 1.2
- d) 2: 1

iv) The thickness of lipid zone of cell membrane is

- a) 20 Angstrom
- b) 30-35 Angstrom
- c) 70-80 Angstrom
- d) 80-90 Angstrom

v) **Assertion:** The plasma membrane is selectively permeable to some molecules present on either side of it.

Reason: Neutral solutes may move across the membrane by the process of simple diffusion.

- a) Both assertion and reason are true, and reason is the correct explanation of the assertion.
- b) Both assertion and reason are true, and reason is not the correct explanation of the assertion.
- c) Assertion is true but reason is false.
- d) Both assertion and reason are false.

16Q Read the following and answer any four questions:

1×4=4

Connective tissue binds different tissue and organs together and support them. The major component in a connective tissue are i) cells fibers iii) and matrix. The cells loosely arranged or widely separated from each other by extracellular material called matrix. The collagen and elastin fiber provide tensile strength and flexibility to the tissue.

i) Mast cell secrete

- a) heparin
- b) histamine
- c)serotonin
- d)all of these

ii) The major constituent of connective tissue is

- a) lipid
- b) collagen
- c)cholesterol
- d)carbohydrate

iii)The hump of Camel consist of

- a) areolar tissue
- b) skeletal tissue
- c)adipose tissue
- d)muscular tissue

iv)What will happen if ligament are cut or broken?

- a) No movement at joint
- b) bones will become fixed
- c) bones will become un fixed
- d) bones will move freely at joints
- v) Assertion Hyaline cartilage is the strongest cartilage in the body

Reason the strengths of a cartilage depend upon the number of lacuna and chondrocytes

- a) Both assertion and reason are true, and reason is the correct explanation of the assertion.
- b) Both assertion and reason are true, and reason is not the correct explanation of the assertion.
- c) Assertion is true but reason is false.
- d) Both assertion and reason are false.

SECTION B

17Q Give the scientific name of the following 2

- a) Structure formed by the germination fern spore
- b) Megasporangium of seed plants

18Q Name the genetic material of 2

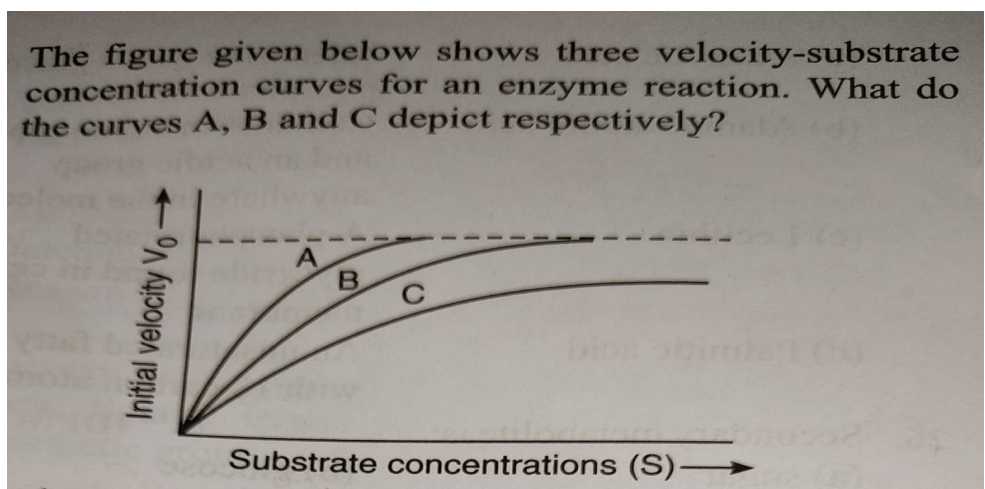
- A) Tobacco mosaic virus
- b) Bacteriophage

19Q In ascomycetes how fruiting bodies cleistothecium differ from apothecium 2

20 Q Describe briefly the various means of recording description of species. 2

21Q Give the structural formula of glycine and serine 2

22Q 2



23Q How is the gametophyte of the Bryophyta different from the gymnosperms 2

24Q How are Euglenoids more advanced than blue green algae from evolutionary point of view 2

ii) Give two important uses of red algae

25 Write different between 2

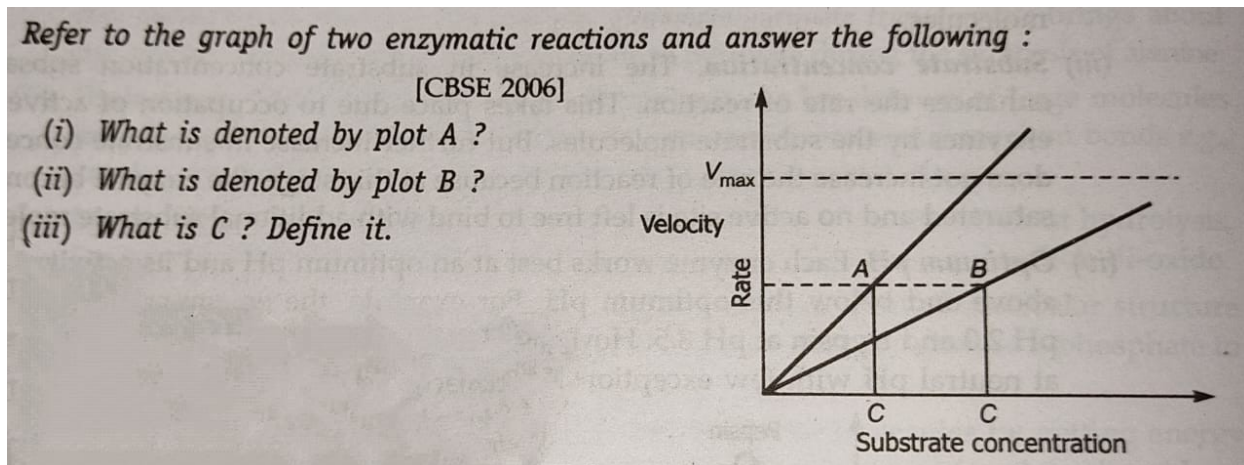
- a) Polyp and medusa (b) Pseudocoelomate and Acoelomate
OR

Explain the pattern of life cycle in ectocarpus and volvox?

SECTION C

26Q

3



27Q Explain the statement protein iceberg is a sea lipids of cell membrane. 3

OR

Why are membranous organelles considered as endomembrane system mention its components?

28Q.Explain the various type of cell junction found in animal cell 3

29Q i) Draw a floral diagram and floral formula of family lily 3

ii Why is kingdom Protista considered an artificial assemblage of organisms?

30Q With which animal would you associated the following? Write their function 3

a) carapace b) gizzard c) flame cells

ii)Write a short note on class cyclostomata

SECTION D

31Q what are phospholipids? How are they amphipathic in nature?

ii) Define secondary structure of protein 5

iii) What do you mean by apoenzyme

OR

- i) Describe the classification and nomenclature of enzyme
 - ii) Define primary structure of protein
 - iii) Give character of conifers leaves that make them well adapted for dry condition
- 32Q What are viroid's

- ii) Name the four classes of pteridophyte 5
- iii) Why are most ferns confined to fairly wet areas)
- iv) Name the tissue that lines the urinary bladder. State any one advantage of this

OR

- i) What is gland? Differentiate between simple and compound gland
- ii) Classify the bacteria based on their flagella
- iii) Draw the diagram of T.S of cilium/flagellum

33Q i). What is cell envelop? Describe its chemical nature 5

- ii) Name the four processes that are basic to taxonomy.
- iii) What are sex pili in bacteria

OR

- i) All vertebrates are chordates but all chordates are not vertebrates. Justify the statement.
- ii) Which of the following covers the greater number of organisms?
 - a) Phylum or genus
 - b) Family or order
- iii) What are important characteristic of brown algae