Directorate of Education, GNCT of Delhi

Mid Term Examination **Practice Paper**

Session :2025-26

Class – XI

Biology (Code: 044)

Time: 3 hours **Maximum Marks: 70**

General Instructions :

Read the following instructions very carefully and strictly follow them: -

- All questions are compulsory.
- The question paper has five sections and 33 questions.
- Section–A has 16 questions of 1 mark each.

Section–B has 5 questions of 2 marks each.
Section–C has 7 questions of 3 marks each.
Section–D has 2 case-based questions of 4 marks each and
Section–E has 3 questions of 5 marks each.
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 labelled diagrams should be drawn.

Section – A

Q. No. 1 to 12 are multiple choice questions. Only one of the choices is correct. Select and write the correct choice as well as the answer to these questions.

Q. No	Question	Marks
1	Which on of the following belongs to family Anarcardiacea? a) Apple b) Mango c) Grapes d) Banana	1
2	The number of species that are known and described range between _____, it refers to biodiversity. a) 1.7-1.8 b) 1.7-1.9 c) 1.7-1.11 d) 1.7-1.10	1
3	Marshy bacteria are known as a) Halophiles b) Thermoacidophiles c) Methanogens d) Photosynthetic	1
4	Green plants had a _____ cell wall. a) Cellulosic b) Chitin c) Pectin d) Pellicle	1
5	Complete the following table:	1

Classes	Common Name	Major Pigments	Stored Food
Chlorophyceae	**A**	**B**	Starch
C	Brown algae	Chlorophyll a,c, fucoxanthin	**D**
Rhodophyceae	Red algae	**E**	**F**

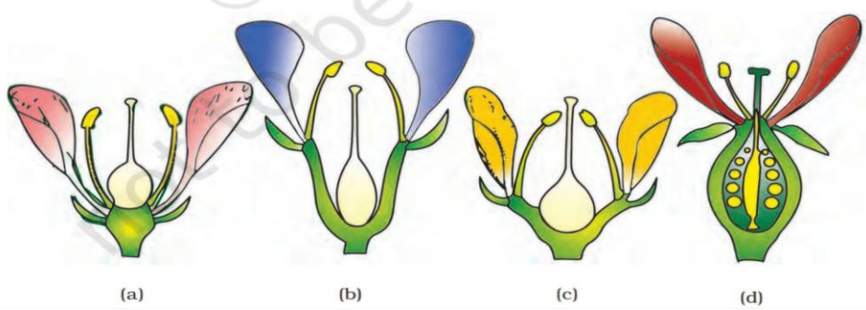
	A	B	C	D	E	F
a)	Blue algae	Carotenoids	Chlorophyceae	Glycogen	Laminarin	Xanthophyll
b)	Green algae	Chlorophyll a,b	Phaeophyceae	Mannitol, laminarin	Chlorophyll a,d, phycoerythrin	Floridean starch
c)	Red algae	Chlorophyceae	Rhodophyceae	Glucose	Xanthophyll	Starch
d)	Brown algae	Rhodophyceae	Algae	Floridean	Mannitol	Laminarin

Q. No	Question	Marks
6	In moss, the capsule helps in : a) Gamete formation b) Spore dispersal c) Fertilization d) Photosynthesis	1
7	Which animal shows metameric segmentation ? a) Earthworm b) Roundworm c) Snail d) Hydra	1
8	The arrangement of sepals and petals in floral bud is called : a) Placentation b) Vernation c) Aestivation d) Phyllotaxy	1
9	Bulliform cells are typically found in a) Dicot stem b) Monocot root c) Monocot leaf d) Dicot leaf	1
10	Tympanum in frog helps in a) Respiration b) Hearing c) Excretion d) Digestion	1
11	Which of this is not a distinguishing feature of a male frog ? a) Narrow abdomen b) Copulatory pad c) Vocal sacs d) Moist ,slippery skin	1
12	Which component of the endomembrane system is responsible for the synthesis of steroidal hormones ? a) Golgi apparatus b) Rough Endoplasmic Reticulum c) Smooth Endoplasmic Reticulum d) Lysosomes	1
	For Question numbers 13 to 16, two statements are given- one labelled as Assertion (A) and the other labelled as Reason (R). Answer these questions by selecting the appropriate option given below: a) Both (A) and (R) are true and (R) is the correct explanation of (A). b) Both (A) and (R) are true, but (R) is not the correct explanation of (A). c) (A) is true, but (R) is False. d) (B) is false, but (R) is true.	
13	**Assertion (A):** Taxonomic hierarchy includes kingdom, phylum, class, order, family, genus and species. **Reason (R):** Each higher category represents a group of organisms with fewer similarities than those in the lower category.	1
14	**Assertion(A):** Aves are the only animals with feathers and bipedal locomotion. **Reason (R):** Presence of pneumatic bones and air sacs help in efficient respiration during flight.	1
15	**Assertion (A):** Trichomes present on the stem may help in reducing water loss. **Reason (R) :** They reflect sunlight and trap a layer of still air.	1
16	**Assertion (A):** The endoplasmic reticulum (ER) helps in both protein and lipid synthesis. **Reason (R):** Rough ER is associated with ribosomes for protein synthesis, while Smooth ER synthesizes lipids.	1

Section – B

Q. No	Question	Marks
17	Define nomenclature. Who proposed binomial nomenclature? **OR** In taxonomic categories the category family how it is characterized?	2
18	Draw a labelled diagram of a moss plant (Funaria) showing gametophyte and sporophyte. **OR** Show with a diagram the structure of Marchantia thallus with gemma cups.	2
19	Explain why Chondrichthyes have to swim constantly whereas Osteichthyes not.	2
20	What is called stomatal apparatus?	2
21	How does cutaneous and pulmonary respiration takes place in frog?	2

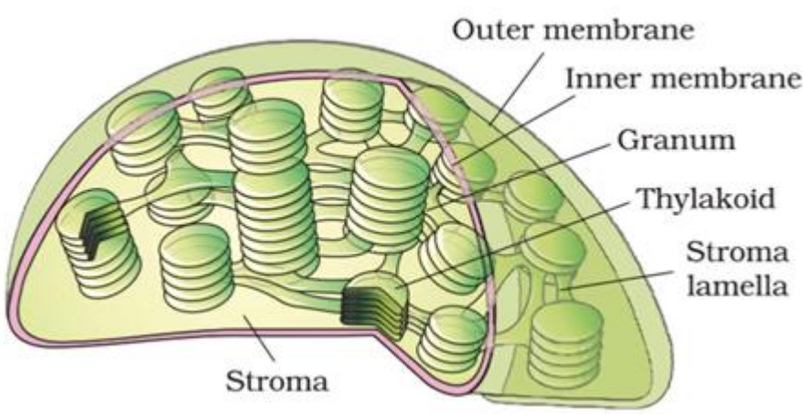
Section – C

Q. No	Question	Marks
22	Describe three modes of nutrition found in Eubacteria with examples.	3
23	Explain the symbiotic associations in Lichens and also name the algal component and fungal component in lichens.	3
24	i) Differentiate between urochordates and cephalochordates (any two points) ii) State two economic importance of Arthropoda.	3
25	i) Identify (a), (b), (c) and (d) the position of floral parts on thalamus. ii) State when ovary is said to be superior and inferior.  (a) (b) (c) (d)	3
26	Draw a T.S. of monocot leaf and label bulliform cells. **OR** Draw a T.S. of dicot leaf and label upper epidermis, palisade mesophyll, spongy mesophyll, and vascular bundle.	3

Q. No	Question	Marks
27	Write three salient features of the frog's circulatory system.	3
28	Match the Column A with Column B: COLUMN A / COLUMN B 1. Mitochondria — a) Protein synthesis 2. Ribosomes — b) Photosynthesis 3. Chloroplast — c) ATP generation 4. Lysosome — d) Intracellular digestion 5. Robert Hooke — e) Cell theory 6. Schleiden and Schwann — f) Discovered cell cork	3

Section – D

Questions Nos 29 and 30 are case-based questions. Each question has sub questions with internal choice in one sub-question.

Q. No	Question	Marks
29	Read the following passage and answer the questions that follows: - "The heart of frog is the three chambered, consisting of two auricles and one ventricle. The heart is covered by a membrane called pericardium. A triangular structure called sinus venous joins the right atrium. Blood from the body enters the right atrium and blood from lungs enters the left atrium. Both the atria pour blood into the single ventricle where mixing of oxygenated and deoxygenated blood takes place. The ventricle pumps blood into the conus arteriosus, which carries it to different body parts." A) How does sinus venosus receives blood? B) Write down the function of veins. OR Write down the function of arteries. C) What is called hepatic portal system and renal portal system?	4
30	Study the sectional view of chloroplast given below and answer the question based on the sectional view:  A) In the diagram of chloroplast, why are thylakoids stacked into grana? B) How does the structure of chloroplast support its function in photosynthesis? C) Compare the functions of grana and stroma based on their locations in the diagram. D) Name the fat soluble pigments in the chloroplasts. OR Which part contains circular DNA and 70S ribosomes?	4

Section – E

Q. No	Question	Marks
31	I. Describe the features of the male gametophyte in Pinus. II. Mention two adaptive features of gymnosperms to survive in cold conditions. **OR** I. Differentiate between microphylls and megaphylls with examples. II. Explain the two stages in moss. III. Name the alga that is used as food supplement by the space travellers.	5
32	i) Name the excretory organ of the following phylum: a) Platyhelminthes b) Annelida c) Arthropoda ii) Write the important role played by radula. iii) Write down the unique mammalian characteristic. **OR** Compare Annelida, Arthropoda, and Mollusca with respect to body organization.	5
33	Describe secondary growth in dicot stems with the help of a diagram. **OR** Explain the Vascular Tissue System supported by diagrams.	5