

Roll No. : _____

Objective
Paper Code

Intermediate Part First (New Scheme)

BIOLOGY (Objective)**6461**

Time: 20 Minutes

Marks: 17

Q.No.1

You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill the relevant circle in front of that question number on computerized answer sheet. Use marker or pen to fill the circles. Cutting or filling two or more circles will result in zero marks in that question. Attempt as many questions as given in objective type question paper and leave other circles blank.

S.#	Questions	A	B	C	D
1	The percentage of calcium in human body is:	1%	2%	3%	4%
2	The melting point of palmitic acid is:	- 8°C	8°C	63.1°C	56.3°C
3	Optimum pH for proper functioning of pepsin is:	4.00	4.50	5.50	2.00
4	Tay-Sach's disease is because of the absence of enzyme involved in catabolism of:	Protein	Glycogen	Lipids	Nucleic acid
5	Icosahedral virus have nearly:	10 faces	20 faces	30 faces	40 faces
6	A cube of 8 cocci is called:	Sarcina	Tetrad	Staphylococcus	Diplococcus
7	Tests of foraminifera are made of:	Calcium	Silica	Sulphur	Phosphorus
8	Histoplasmosis caused by spores of fungus is a serious infection of:	Kidney	Skin	Lungs	Heart
9	Double fertilization is a special process found in:	Gymnosperm	Angiosperm	Bryophyte	Algae
10	Parotid salivary glands are situated in the front of:	Jaws	Ears	Tongue	Eyes
11	How much air can lungs hold when they are fully inflated?	5 liters	4 liters	3.5 liters	4.5 liters
12	Haemocyanin is found in the phylum:	Echinodermata	Mollusca	Hemichordata	Chordata
13	Flame cells are found in the phylum:	Nematoda	Annelida	Mollusca	Platy-helminthes
14	From one pyruvate passing through Kreb's cycle FADH ₂ molecules are formed:	1	2	3	4
15	Photosystem II has the form of chlorophyll a which absorbs best light of:	670nm	680nm	690nm	700nm
16	Normal pH of human blood is:	4.4	5.4	6.4	7.4
17	According to one hypothesis, stomata opens due to the active transport of:	Sodium	Potassium	Sulphur	Nitrogen

SECTION – I

2. **Write short answers to any EIGHT parts.** 16
- (i) What is embryology?
 - (ii) Define integrated disease management.
 - (iii) What is an apoenzyme?
 - (iv) Give the functions of binding site and catalytic site of the active site of an enzyme.
 - (v) What is the induce fit model of enzyme action? Who proposed it?
 - (vi) What is a virion?
 - (vii) What are smuts?
 - (viii) What is parasexuality?
 - (ix) What are diploblastic animals?
 - (x) What are cnidocytes?
 - (xi) What is a radula?
 - (xii) What are metatherian animals?
3. **Write short answers to any EIGHT parts.** 16
- (i) Differentiate between gram positive and gram negative bacteria.
 - (ii) How protists are different from other eukaryotes?
 - (iii) What is evolutionary significance of choanoflagellates?
 - (iv) Give two characteristics of apicomplexans.
 - (v) What is infamous role of phytophthora infestans?
 - (vi) Define flower. What are essential and non-essential parts of flower?
 - (vii) What are homosporous and heterosporous plants? Give examples.
 - (viii) How it was proved that oxygen released during photosynthesis comes from water and not from CO₂?
 - (ix) Define photosynthesis. Also write its chemical reaction.
 - (x) Differentiate between peristalsis and antiperistalsis.
 - (xi) What is heat burn or pyrosis? Give its causes.
 - (xii) What is bile? Give its functions.
4. **Write short answers to any SIX parts.** 12
- (i) Differentiate between chromoplast and leucoplast.
 - (ii) Differentiate between microtubules and microfilaments.
 - (iii) Draw the chemical formulae of ribofuranose (D-Ribose) and glucopyranose (D-Glucose).
 - (iv) Differentiate between single and double circuit heart with examples.
 - (v) Differentiate between B and T lymphocytes.
 - (vi) Differentiate between breathing and cellular respiration.
 - (vii) What is biological oxidation?
 - (viii) What is serine and who it is formed?
 - (ix) Differentiate between inspiration and expiration.
- SECTION – II** Attempt any THREE questions. Each question carries 08 marks.
5. (a) Give the role of Biology in the field of preventive measures of disease control and vaccination. 02,02
 (b) Explain the structure of heart of man. 03,01
6. (a) Give an account of acylglycerols. 04
 (b) Write a note on economic gains due to Fungi. 04
7. (a) Write a note on Golgi Apparatus. 04
 (b) Explain the process of digestion in cockroach. 04
8. (a) Describe lysogenic cycle in bacteriophage. 04
 (b) Describe non-cyclic phosphorylation during Z-scheme of photosynthesis. 04
9. (a) Write a note on growth and reproduction in bacteria. 04
 (b) Define angiosperms. Explain double fertilization in angiosperms. How angiosperms differ from gymnosperms. 04