

BIOLOGY PAPER-I (NEW SCHEME) GROUP-I

TIME ALLOWED: 20 Minutes

OBJECTIVE

MAXIMUM MARKS: 17

Note: You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill that bubble in front of that question number. Use marker or pen to fill the bubbles. Cutting or filling two or more bubbles will result in zero mark in that question. Attempt as many questions as given in objective type question paper and leave others blank. No credit will be awarded in case BUBBLES are not filled. Do not solve questions on this sheet of OBJECTIVE PAPER.

Q.No.1

- (1) The reasoning from general to specific is:

(A) Inductive	(B) Deductive	(C) Scientific	(D) Theoretical
---------------	---------------	----------------	-----------------
- (2) Our blood normally contains Glucose:

(A) 0.6 %	(B) 0.8 %	(C) 0.06 %	(D) 0.08 %
-----------	-----------	------------	------------
- (3) Lock and key model was proposed by:

(A) Koshland	(B) Emil Fischer	(C) Flemming	(D) Wilkins
--------------	------------------	--------------	-------------
- (4) The fluid which surrounds thylakoids is:

(A) Matrix	(B) Stroma	(C) Cytosol	(D) Nucleoplasm
------------	------------	-------------	-----------------
- (5) The capsomeres present in the capsid of Adeno-virus are:

(A) 152	(B) 162	(C) 252	(D) 352
---------	---------	---------	---------
- (6) Rapid phase of growth of Bacteria is:

(A) Lag phase	(B) Log phase	(C) Stationary phase	(D) Death/decline phase
---------------	---------------	----------------------	-------------------------
- (7) Most green algae possess cell walls with:

(A) Cellulose	(B) Chitin	(C) Silica	(D) Pectin
---------------	------------	------------	------------
- (8) Ustilago species are most common:

(A) Rust fungi	(B) Smut fungi	(C) Mold	(D) Yeast
----------------	----------------	----------	-----------
- (9) The simplest of all the Bryophytes are:

(A) Mosses	(B) Liverworts	(C) Hornworts	(D) Club Mosses
------------	----------------	---------------	-----------------
- (10) Dolphin is:

(A) Fish	(B) Bird	(C) Mammal	(D) Amphibian
----------	----------	------------	---------------
- (11) Coral reefs are mostly formed of:

(A) Calcium carbonate	(B) Silica	(C) Chitin	(D) Lignin
-----------------------	------------	------------	------------
- (12) Chlorophyll a is:

(A) Yellow green	(B) Blue green	(C) Orange green	(D) Yellow green dark
------------------	----------------	------------------	-----------------------
- (13) The number of chloroplasts in each Mesophyll cell is about:

(A) 10-50	(B) 20-100	(C) 30-80	(D) 100-200
-----------	------------	-----------	-------------
- (14) Fresh saliva has pH:

(A) 4	(B) 6	(C) 8	(D) 7.3
-------	-------	-------	---------
- (15) The heart of Fish is:

(A) Single circuit	(B) Double circuit	(C) Triple circuit	(D) Multi circuit
--------------------	--------------------	--------------------	-------------------
- (16) About _____ of total transpiration takes place through cuticular transpiration.

(A) 1-2 %	(B) 5-7 %	(C) 90 %	(D) 2-5 %
-----------	-----------	----------	-----------
- (17) One complete heart beat lasts for:

(A) 0.8 seconds	(B) 0.4 seconds	(C) 0.15 seconds	(D) 0.2 seconds
-----------------	-----------------	------------------	-----------------

BIOLOGY PAPER-I (NEW SCHEME) GROUP-I

TIME ALLOWED: 2.40 Hours

SUBJECTIVE

MAXIMUM MARKS: 68

NOTE: - Write same question number and its part number on answer book,
as given in the question paper.

SECTION-I

8 × 2 = 16

Attempt any eight parts.

- (i) Draw general formula for an Amino acid.
- (ii) How enzyme concentration affects the rate of enzyme action?
- (iii) What is active site of enzyme? How it works?
- (iv) At high level of substrate concentration, enzyme reaction is not increased. Why?
- (v) What role fungi and algae play in lichen?
- (vi) Define dikaryotic phase with example.
- (vii) Give two common characters of Arachnids and Arthropods.
- (viii) What are harmful effects of insects?
- (ix) Give two uses of sharks.
- (x) What is swim bladder? Give its function.
- (xi) Define accessory pigments. What is their role?
- (xii) What is compensation point? When it occurs?

8 × 2 = 16

Attempt any eight parts.

- (i) Define Phyletic Lineage.
- (ii) How deductive reasoning is different from inductive reasoning?
- (iii) Differentiate between chromoplast and leucoplast.
- (iv) What are microtubules? Write their function.
- (v) Write something about giant amoeba.
- (vi) How algae are different from plants?
- (vii) What are Dinoflagellates? Give their significance.
- (viii) Write importance of Algae.
- (ix) What are antheridiophores and archegoniophores?
- (x) Define Homospory and Heterospory.
- (xi) Write role of lymphatic system in defense of body.
- (xii) What is passive immunity?

6 × 2 = 12

Attempt any six parts.

- (i) What are capsid and capsomere?
- (ii) Differentiate between Lophotrichous and Amphitrichous bacteria.
- (iii) Write down function of Villi.
- (iv) Give composition of saliva.
- (v) What is heart burn?
- (vi) Define breathing.
- (vii) Give symptoms and causes of tuberculosis.
- (viii) How pH affects the capacity of haemoglobin to combine with Oxygen?
- (ix) What is the role of diaphragm in breathing?

SECTION-II

3 × 8 = 24

NOTE: - Attempt any three questions.

- 5.(a) Discuss Biological method.
- (b) What is Cohesion tension theory?
- 6.(a) Write a note on Acylglycerol.
- (b) Give an account of animal diseases caused by Fungi.
- 7.(a) Write various methods to control bacteria.
- (b) Give land adaptations of bryophytes.
- 8.(a) Discuss the lytic cycle of the Bacteriophage.
- (b) What is anaerobic respiration? Discuss its types.
- 9.(a) Describe structure and functions of cell membrane.
- (b) Explain causes and remedy of food poisoning and obesity.

4
4
4
4
4
4
4
4
4
4