

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. 4
- (b) What is Cohesion tension theory? 4
- 6.(a) Write a note on Acylglycerol. 4
- (b) Give an account of animal diseases caused by Fungi. 4
- 7.(a) Write various methods to control bacteria. 4
- (b) Give land adaptations of bryophytes. 4
- 8.(a) Discuss the lytic cycle of the Bacteriophage. 4
- (b) What is anaerobic respiration? Discuss its types. 4
- 9.(a) Describe structure and functions of cell membrane. 4
- (b) Explain causes and remedy of food poisoning and obesity. 4

BIOLOGY PAPER-I (NEW SCHEME) GROUP-II

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) In deductive reasoning we move from:
 (A) General to specific (B) Specific to general (C) General to general (D) Specific to specific
- (2) Total weight of water in bacterial cell is:
 (A) 10% (B) 30% (C) 50% (D) 70%
- (3) Irreversible inhibitors form which bonds with active site?
 (A) Hydrogen bonds (B) Covalent bonds (C) Ionic bonds (D) Hydrophobic bonds
- (4) Cell membrane is chemically composed of proteins:
 (A) 10 - 20 % (B) 20 - 30 % (C) 40 - 50 % (D) 60 - 80 %
- (5) Influenza viruses are:
 (A) RNA enveloped (B) RNA non-enveloped (C) DNA enveloped (D) DNA non-enveloped
- (6) Pili are primarily involved in:
 (A) Movement (B) Conjugation (C) Nutrition (D) Excretion
- (7) Phycoerythrin is found in:
 (A) Green algae (B) Red algae (C) Brown algae (D) Blue green algae
- (8) Rhizopus belongs to class:
 (A) Deuteromycetes (B) Ascomycetes (C) Basidiomycetes (D) Zygomycetes
- (9) Which of the following were the first plants that formed true leaves and roots?
 (A) Psilopsids (B) Lycopods (C) Megaphylls (D) Ferns
- (10) Pseudocoel is found in:
 (A) Ascaris (B) Neries (C) Lumbricus (D) Pheretima
- (11) Example of tunicate is:
 (A) Amphioxus (B) Molgula (C) Amphibia (D) Reptilia
- (12) Chlorophyll 'a' of photosystem I absorbs maximum light of:
 (A) 670 nm (B) 680 nm (C) 690 nm (D) 700 nm
- (13) Which is stimulus for cyclic phosphorylation?
 (A) Low CO_2 (B) Low O_2 (C) Low ATP (D) Low NADPH
- (14) Which of the following has tube type digestive system?
 (A) Cockroach (B) Amoeba (C) Hydra (D) Planaria
- (15) Respiratory distress syndrome is common in:
 (A) All new borns (B) Premature infants (C) Adults (D) Old age people
- (16) Closely associated with root pressure is a phenomenon:
 (A) Transpiration (B) Exudation (C) Evaporation (D) Humidity
- (17) Antiserum is a serum containing:
 (A) Antibodies (B) Antibiotics (C) Antigen (D) Anticancer chemicals

INTERMEDIATE PART-I (11th CLASS)**BIOLOGY PAPER-I (NEW SCHEME) GROUP-II**

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

2. **Attempt any eight parts.**
- What is the function of mRNA?
 - Define Coenzyme.
 - Differentiate between Holoenzyme and Apoenzyme.
 - What is Activator?
 - What do you know about nuclear mitosis?
 - Differentiate between endomycorrhizae and ectomycorrhizae.
 - What is Mantle?
 - What are spicules?
 - Describe disinfestation of Taenia.
 - What are tunicates?
 - What is source of Oxygen during photosynthesis?
 - What is the use of Spectrophotometer?

8 × 2 = 16

3. **Attempt any eight parts.**
- What is Bioremediation?
 - What is Biological control?
 - What are Peroxisomes?
 - Define Storage diseases.
 - What are actinopods?
 - How slime molds are different from fungi?
 - Describe evolutionary significance of euglenoids.
 - What are red tides?
 - How male cone of pinus differs from female cone?
 - Define Ovule.
 - Briefly describe pulmonary circulation.
 - What is honey dew?

6 × 2 = 12

4. **Attempt any six parts.**
- What are the symptoms of AIDS?
 - What is plasmid? Give its importance.
 - What are detritivores animals?
 - Define the term peristalsis.
 - What is gastrin? Give its function.
 - How much Carbon dioxide is present in venous and arterial blood?
 - What is pulmonary tuberculosis? Write down its cause.
 - What is Myoglobin? How does it differ from haemoglobin?
 - What is the effect of Carbon dioxide on the transport of Oxygen in blood?

SECTION-II

3 × 8 = 24

NOTE: - Attempt any three questions.

- 5.(a) Define the following branches of Biology. 4
- (i) Molecular Biology (ii) Microbiology (iii) Parasitology (iv) Biotechnology
- (b) Describe the mechanism of opening and closing of stomata. 4
- 6.(a) Describe the primary and secondary structure of protein. 4
- (b) Describe characteristics of Basidiomycota. 4
- 7.(a) Give economic importance of Cyanobacteria. 4
- (b) Describe life cycle of Adiantum. 4
- 8.(a) Write a detailed note on "AIDS". Draw life cycle of HIV. 4
- (b) Explain Krebs's cycle in detail. Draw flow sheet diagram of its reactions. 4
- 9.(a) What is Cytoskeleton? Give its functions. 4
- (b) Describe events that occur during the process of swallowing. 4