FBD-11-1-23

Roll No. : _____

Objective
Paper Code
**6461**

**Intermediate Part First**

# BIOLOGY ( Objective ) GROUP - I

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 control of pests by some living organism is called: | Pest control | Living control | Biological control | Organismic control |
| 2 | The human bone cells contain the amount of water is: | 5 % | 10 % | 15 % | 20 % |
| 3 | Which of the enzyme has pH = 9? | Pancreatic lipase | Pancreatic amylase | Chymotrypsim | Arginase |
| 4 | The haploid number of chromosomes in drosophila melanogaster is: | 2 | 4 | 8 | 16 |
| 5 | The botanical name of tomato is: | Solanum-nigrum | Solanum-tuberosum | Solanum-esculentum | Solanum-melongena |
| 6 | Antonie Van Leeuwen Hock was the first to report the microbes: | Bacteria and protozoa | Bacteria and virus | Bacteria and algae | Bacteria and fungi |
| 7 | The animal live in the gut of termites is: | Ciliate | Trypanosome | Choanoflageuates | Trichonymphas |
| 8 | The multinucleated fungus group is: | Zygomycota | Ascomycota | Basidiomycota | Deuteromycota |
| 9 | Prosopis-glandulosa belongs to family: | Rosaceae | Mimosaceae | Fabaceae | Poaceae |
| 10 | The red blood cells of mammals are: | Nucleated | Many nucleated | Non-nucleated | Nucleated first then non-nucleated |
| 11 | The organ madreporite is found in: | Coelenterates | Annelids | Molluscus | Echinoderms |
| 12 | In cyclic phosphorylation electrons from primary acceptor of photosystem-I flows back to: | Pq | Pc | Cytochrome complex | $NADP^+$ |
| 13 | In prokaryotes the chlorophyll is present in: | Photosynthetic membranes | Stroma of chloroplast | Thylakoid membranes | Granum of chloroplast |
| 14 | The examples of parasitic plant is: | Lichen | Dodder | Drosera | Neotia |
| 15 | How much air, lungs can held when they are fully inflated: | 3.5 litre | 1.5 litre | 5 litre | 4 litre |
| 16 | The hydrostatic pressure in xylem is increased when root pressure: | Increased | Decreased | Remain static | Increased first then decreased |
| 17 | Antiserum is a serum containing: | Antigens | Antibodies | Platelets | Lymphocytes |



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Intermediate Part First Roll No. _____

FBD-11-1-23

# BIOLOGY ( Subjective ) GROUP - I

Time: 02:40 Hours Marks: 68

## SECTION – I

2. **Write short answers to any EIGHT parts.** 16
   (i) Lipids has double amount of energy as compared to same amount of carbohydrates. Why?
   (ii) At pH2 pepsin works while arginase does not work. Why?
   (iii) What are reversible inhibitors?
   (iv) Differentiate between prosthetic group and coenzyme.
   (v) What is candidosis?
   (vi) How genetic recombination occurs in imperfect fungi?
   (vii) Differentiate between ostia and osculum.
   (viii) Define polymorphism.
   (ix) What are beneficial insects?
   (x) What is syrinx and where it is situated?
   (xi) How entry of $CO_2$ into leaves is controlled?
   (xii) Calvin cycle is called $C_3$ pathway. Justify it.

3. **Write short answers to any EIGHT parts.** 16
   (i) What do you know about biome?
   (ii) Give the two advantages of tissue culture techniques.
   (iii) Differentiate between primary cell wall and secondary cell wall.
   (iv) Suggest any two functions of Golgi complex.
   (v) What do you know about kelps?
   (vi) How does locomotion take place in apicomplexans?
   (vii) What do you know about choanoflagellates?
   (viii) Give the special features of giant amoeba.
   (ix) Differentiate between protonema and paraphyses?
   (x) Explain the term double fertilization.
   (xi) Differentiate between symplast pathway and apoplast pathway.
   (xii) Suggest the location and function of coronary artery.

4. **Write short answers to any SIX parts.** 12
   (i) What are pocks?
   (ii) Define plasmids. How these are important?
   (iii) What is saliva? Give its ingredients.
   (iv) Compare saprophytic and parasitic mode of nutrition.
   (v) What are omnivores? Give example.
   (vi) Differentiate between epiglottis and glottis.
   (vii) What are spiracles? Give their function.
   (viii) Write two factors which affect transport of oxygen in blood.
   (ix) How does respiration occur in earthworm?

## SECTION – II Attempt any THREE questions. Each question carries 08 marks.

5. (a) How can you solve biological problem with help of biological method? 04
   (b) Write a note on blood plasma. 04

6. (a) Write a note on importance of water. 04
   (b) Discuss economic losses due to fungi. 04

7. (a) Illustrate various methods to control bacteria in home, industry as well as in medical fields. 04
   (b) Write significance of alternation of generation in plants. 04

8. (a) What are small pox and herpes simplex diseases? 04
   (b) Draw the sketch of electron transport chain and chemiosmosis, coupling ETC and formation of ATP by chemiosmosis. 04

9. (a) What are plastids? Describe their different types. 04
   (b) Describe digestion of food in planaria. 04

Roll No. : FBD-11-2-23

Objective

*Paper Code*

**6466**

**Intermediate Part First**

# BIOLOGY ( Objective ) GROUP - II

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 oyster mushroom is considered as: | Parasitic fungi | Saprotrophic fungi | Carnivorous fungi | Omnivorous fungi |
| 2 | The type of algae takes part in coral reef formation is: | Brown | Green | Golden | Red |
| 3 | Which type of respiration is found in bacterium E.Coli?: | Aerobic | Anaerobic | Micro aerophilic | Facultative anaerobic |
| 4 | The mysterious brain infection is caused by: | Virion | Prion | Bacteria | Fungi |
| 5 | The protein present in microtubules is: | Actin | Myosin | Tubulin | Tropomysin |
| 6 | The vitamins are essential raw material for the synthesis of: | Activator | Co-factor | Co-enzyme | Prosthetic group |
| 7 | Monosaccharides which rare in nature and occur in some bacteria are: | Troises | Tetroses | Pentoses | Hexoses |
| 8 | The stomach can digest the: | Proteins | Fats | Starch | Cellulose |
| 9 | Which is agranulocyte? | Basophilis | Eosinophilis | Monocyte | Neutrophilis |
| 10 | The volume of blood in a body weight of 72 kg is: | 5 litres | 6 litres | 7 litres | 8 litres |
| 11 | About 70% of $CO_2$ is carried as: | Carbonates | Bicarbonate | Carbonic acid | Acetic acid |
| 12 | Pepsinogen is secreted by: | Mucous cells | Parietal cells | Zymogen cells | Oxyntic cells |
| 13 | The first action spectrum was obtained by: | Van Neil | Engelmann | Melvin Calvin | Van Mohl |
| 14 | Chlorophyll-b is found along with chlorophyll-a in: | Bacteria | Cyanobacteria | Bryophytes | Embryophytes |
| 15 | The length of giant squid in meters is equal to: | 5 | 10 | 15 | 20 |
| 16 | The exclusively marine phylum is: | Protozoa | Porifera | Coelenterata | Echino dermata |
| 17 | The scientific name of egg plant is: | Capsicum annum | Solanum tuberosum | Solanum melangena | Solanum nigreem |

Intermediate Part First Roll No. _____

# BIOLOGY (Subjective) GROUP - II

FBD-11-2-23 *Time: 02:40 Hours* *Marks: 68*

## SECTION – I

2. **Write short answers to any EIGHT parts.** 16
   (i) Differentiate between amylose and amylopectin.
   (ii) Do you think that koshland change the idea of enzyme action?
   (iii) Write any two properties of enzymes.
   (iv) How heat influence the rate of enzyme action?
   (v) What are two main ecological importances of Lichen's?
   (vi) Differentiate parasitic fungi from saprophytic fungi.
   (vii) Differentiate protostomes from deuterostomes.
   (viii) Why arthropods have reached the peak of invertebrate evolution?
   (ix) How swim bladder help the fish to survive in aquatic environment?
   (x) Write any four characters of birds.
   (xi) Define compensation point.
   (xii) How is daily rhythmic activity of stomata governed?
3. **Write short answers to any EIGHT parts.** 16
   (i) Name and define the method used to protect walnut tree from pest.
   (ii) The environmental pollution is a national problem in Pakistan. Why?
   (iii) Cell membrane offers a barrier between cell content and environment. Justify it.
   (iv) Golgi complex is concerned with cell secretions. Why?
   (v) Why fungus like protists are not fungi?
   (vi) Water mold played infamous role in human history. Justify it.
   (vii) Write two uses of chlorella.
   (viii) What are red tides?
   (ix) Define protonema.
   (x) What is the role of meristematic tissue in hornworts?
   (xi) Differentiate between source and sink.
   (xii) The heart of fish is single circuit. Why?
4. **Write short answers to any SIX parts.** 12
   (i) What are the symptoms of AIDS?
   (ii) Differentiate between prions and virions.
   (iii) What is hunger pang? Also write its causes.
   (iv) How gastric juice production is regulated?
   (v) Differentiate between oxyntic cells and zymogen cells.
   (vi) What is diving reflex and how it is activated?
   (vii) Suggest the various characteristics of respiratory surface.
   (viii) What is respiratory distress syndrome?
   (ix) How does respiration take place in Earthworm?

## SECTION – II Attempt any THREE questions. Each question carries 08 marks.

5. (a) Discuss biological method. 04
   (b) Give comparison between closed and open circulatory system. 04
6. (a) What are polysaccharides? Discuss in detail. 04
   (b) Give economic losses due to fungi. 04
7. (a) Discuss the structure of bacterial cell wall. Also give comparison between Gram positive and negative bacteria. 04
   (b) Discuss the life cycle of Moss. 04
8. (a) Explain five kingdom system of classification in detail. Discuss its modification as well. 04
   (b) Discuss various photosynthetic pigments in detail. 04
9. (a) What role plays cytoskeleton in the cell? 04
   (b) Discuss parasitic nutrition and its various types. 04