

Roll No. of Candidate : _____

G.U.J-1-24

BIOLOGY

Intermediate Part-I, Class 11th (1stA 324- IV) Paper : I Group - I

Time: 20 Minutes

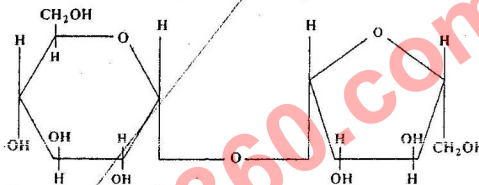
OBJECTIVE

Code : 6467

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 circle in front of that question number. Use marker or pen to fill the circles. Cutting or filling two or more circles will result in zero mark in that question.

1. 1 - Retroviruses have special enzyme which can convert a single stranded RNA to double stranded DNA, named as
(A) catalase (B) reverse transcriptase (C) sucrase (D) arginase
- 2 - The substance which inhibits blood clotting is
(A) heparin (B) histamine (C) fibrin (D) albumin
- 3 - What happens to Oxygen in respiratory electron transport chain?
(A) forms CO₂ (B) released as gas (C) forms NAD (D) reduced to H₂O
- 4 - The causal organism of amoebic dysentery in human, is
(A) Paramecium (B) Amoeba (C) Tse-Tse fly (D) Entamoeba
- 5 - This diagram shows a Carbohydrate,



What is the name of bond which links the two subunits?

- (A) A Glycosidic bond (B) A Hydrogen bond (C) A Peptide bond (D) Ester linkage
- 6 - Diameter of bronchiole is about
(A) 1 mm (B) 2 mm (C) 3 mm (D) 4 mm
- 7 - Double fertilization is the characteristic of
(A) Angiosperms (B) Gymnosperms (C) Bryophytes (D) Ferns
- 8 - During fermentation, the amount of energy present within the chemical bonds of glucose which is converted to ATP, is
(A) 1% (B) 98% (C) 2% (D) 99%
- 9 - In normal human body, the percentage of plasma in blood is
(A) 90% (B) 45% (C) 10% (D) 55%
- 10 - New ribosomes are assembled in
(A) Nucleolus (B) Mitochondrion (C) Lysosomes (D) Golgi apparatus
- 11 - A group of similar cells that performs a specific function is called
(A) system (B) organelle (C) organ (D) tissue
- 12 - The phase of rapid growth in bacteria is called
(A) stationary phase (B) log phase (C) lag phase (D) death phase
- 13 - Which one of the following is the length of the giant squid?
(A) 10 meter (B) 50 meter (C) 200 meter (D) 15 meter
- 14 - The first part of small intestine is called
(A) jejunum (B) duodenum (C) ileum (D) colon
- 15 - In most of the sponges, outer layer of body wall is made up of
(A) Choanocytes (B) pinacocytes (C) erythrocytes (D) leucocytes
- 16 - Lovastatin is used for lowering
(A) blood salts (B) blood glucose (C) blood pressure (D) blood cholesterol
- 17 - The inorganic and detachable cofactor is called
(A) coenzyme (B) prosthetic group (C) activator (D) inhibitor

Note: Section-I is compulsory. Attempt any three (3) questions from Section-II.

SECTION – I

2. Write short answers to any EIGHT questions. (2 x 8 = 16)

- i - Write down the comparison between saturated and unsaturated fatty acids with example.
- ii - What is effect of enzyme concentration on the rate of reaction?
- iii - Why some enzymes are produced in inactive form? Give one example.
- iv - Define Induce Fit Model of enzyme and who proposed it?
- v - Compare obligate parasite with facultative parasite with example.
- vi - What are Mycorrhizae? Give their importance.
- vii - Give two comparisons of protostomia and deuterostomia with example.
- viii - Define Placenta, give its function.
- ix - How are Echinoderms related to chordates?
- x - What are prototherian mammals? Give an example.
- xi - Differentiate absorption and action spectrum.
- xii - Define Calvin Cycle. Where does it occur?

3. Write short answers to any EIGHT questions. (2 x 8 = 16)

- i - Define biological method. What is biological problem?
- ii - How would you distinguish between biological control and bioremediation?
- iii - Who stated "Omnis cellula e cellula"? What does it mean?
- iv - Define congenital diseases? Give examples and their causes.
- v - Write down name of a parasitic amoeba. What disease does it cause?
- vi - What are red tides?
- vii - Why slime moulds are included in Kingdom protocista?
- viii - How Phytophthora infestans caused Irish potato famine?
- ix - What is the role of mitochondria in photorespiration?
- x - How scuba diver breaths pressurized air?
- xi - What is the difference between pulmonary and systemic circulation?
- xii - How blood helps in maintaining internal environment of body?

4. Write short answers to any SIX questions. (2 x 6 = 12)

- i - Give any four symptoms of hepatitis.
- ii - Write down four postulates of "Germ Theory of Disease".
- iii - How does peristalsis differ from antiperistalsis?
- iv - Clarify the terms villi and microvilli.
- v - What are the symptoms of Nitrogen deficiency in plants?
- vi - Define double fertilization. Give its importance.
- vii - What are fronds? In which class of tracheophyte fronds are present?
- viii - Why Bambusa is economically important?
- ix - How are Bryophytes considered as amphibians of the plants?

SECTION – II

5. (a) What is Biological organization? Discuss population and community level organization. (4)
- (b) Describe mechanism of breathing in Man. (4)
6. (a) Describe the acylglycerols in detail. (4)
- (b) Draw a labelled graphic representation of life cycle of rhizopus (no description is needed). (4)
7. (a) List organelles which are single membrane bound, double membrane bound and lacking any membrane? Draw a labelled diagram of a section through Mitochondria. (4)
- (b) Discuss following disorders: (4)
 - (i) Food poisoning
 - (ii) Piles
8. (a) Define species. Discuss binomial nomenclature with biological classification of corn. (4)
- (b) Define blood. How red blood cells and white blood cells are developed from stem cells in bone marrow? (4)
9. (a) Discuss habitat, occurrence, structure and reproduction of Nostoc. (4)
- (b) Explain respiratory electron transport chain. (4)

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BIOLOGY

Intermediate Part-I, Class 11th (1stA 324- IV) Paper : I Group – II

Time: 20 Minutes

OBJECTIVE Code : 6468 G.U.J-2-24

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 circle in front of that question number. Use marker or pen to fill the circles. Cutting or filling two or more circles will result in zero mark in that question.

1. 1 - The cyclosis and amoeboid movements are due to
(A) microtubules (B) microfilaments (C) intermediate filaments (D) membrane
- 2 - The stunted growth and chlorosis occurs in plants due to deficiency of
(A) Iron (B) Magnesium (C) Nitrogen (D) Zinc
- 3 - One complete heart beat lasts for
(A) 1.0 sec (B) 0.8 sec (C) 0.5 sec (D) 0.2 sec
- 4 - Bacteria divide at exponential rate during
(A) decline phase (B) lag phase (C) log phase (D) stationary phase
- 5 - The animal which has single circuit heart is
(A) Monkey (B) Sparrow (C) Lizard (D) Trout
- 6 - The porphyrin ring of haemoglobin contains
(A) Calcium (B) Iron (C) Potassium (D) Phosphorus
- 7 - The poisonous mushrooms are called
(A) Agaricus (B) Morels (C) Truffles (D) Toad stools
- 8 - Round worms belong to phylum
(A) annelida (B) arthropoda (C) mollusca (D) nematoda
- 9 - The maximum amount of air held by inflated lungs is
(A) 5 liter (B) 4 liter (C) 4.5 liter (D) 3.5 liter
- 10 - The optimum pH for enterokinase is
(A) 1.50 (B) 3.50 (C) 5.50 (D) 7.50
- 11 - A large regional community primarily determined by climate.
(A) biome (B) biosphere (C) ecosystem (D) community
- 12 - Measles and Mumps are caused by a virus belonging to a group called
(A) adenoviruses (B) paramyxovirus (C) poxvirus (D) poliovirus
- 13 - Loligo, Sepia and Octopus are examples of class
(A) Bivalvia (B) Gastropoda (C) Cephalopoda (D) Oligochaeta
- 14 - Plastocyanin contains
(A) Copper (B) Iron (C) Magnesium (D) Potassium
- 15 - The gametophyte of a Moss is
(A) diploid (B) haploid (C) polyploid (D) tetraploid
- 16 - The sexual reproduction in most of ciliates takes place by
(A) conjugation (B) binary fission (C) Oogamy (D) fertilization
- 17 - The normal amount of glucose in human body is
(A) 0.6% (B) 0.8% (C) 0.06% (D) 0.08%

Note: Section-I is compulsory. Attempt any THREE (3) questions from Section-II.

SECTION – I**2. Write short answers to any EIGHT questions.**

(2 x 8 = 16)

- i - What are polysaccharides? Write down the names of four examples.
- ii - What is optimum temperature?
- iii - State the theory of "Induce Fit Model".
- iv - Differentiate the irreversible and reversible inhibitors.
- v - Basidiomycetes are called club fungi. Why?
- vi - Give the biological names of Rusts and Smut.
- vii - Differentiate grade radiata and bilateria.
- viii - What is pseudocoelom? How it is different from coelom?
- ix - How host is disinfested from a parasite?
- x - Differentiate Urochordata and Cephalochordata.
- xi - What is the mechanism for ATP synthesis in cyclic and noncyclic photophosphorylation?
- xii - Why Calvin cycle is also called C₃ Pathway?

3. Write short answers to any EIGHT questions.

(2 x 8 = 16)

- i - Write down the organ level in plants.
- ii - Why it is important to control environmental pollution in Pakistan?
- iii - What will happen if a chromosome loses its centromere?
- iv - What are leucoplasts? Give their function.
- v - Write down any two characteristics of diatoms.
- vi - Give two main characters of Oomycotes?
- vii - How would you compare green algae with plants?
- viii - What are the symptoms of Malaria?
- ix - Why is Larynx also known as voice box?
- x - What is tuberculosis? Give its causative agents.
- xi - What is the contribution of Dixon in Ascent of sap?
- xii - Transpiration is considered as a necessary evil. How?

4. Write short answers to any SIX questions.

(2 x 6 = 12)

- i - Define binomial nomenclature, give its rules.
- ii - Give comparison between amphitrichous and peritrichous bacteria.
- iii - Define ovule and embryo sac.
- iv - Differentiate between the bryophytes and tracheophytes.
- v - Give two vegetative characters of family Solanaceae with example.
- vi - Compare Dicot with Monocot plants.
- vii - What is macrophagous feeding? Give an example.
- viii - Define digestion. Write down its types.
- ix - Write down the role of Gastrin.

SECTION – II

5. (a) Write down a note on biological organization at population and community level. (4)
- (b) In what ways is respiration in birds the most efficient and elaborate? (4)
6. (a) Why Carbon is considered to occupy the central position in skeleton of life? (4)
- (b) Write down the disease cycle of loose smut of wheat. (4)
7. (a) Write down in detail structure and functions of plasma membrane. (4)
- (b) Describe process of digestion in cockroach with the help of labelled diagram. (4)
8. (a) Write down the biological classification of Corn (zea mays). (4)
- (b) Explain pressure flow theory. (4)
9. (a) What are pleomorphic bacteria? Discuss different shapes of bacteria. (4)
- (b) What is glycolysis? Describe substrate level of phosphorylation in oxidative phase of glycolysis. (4)