

Roll No. of Candidate : _____

GUG-1-24

BIOLOGY

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

Time: 20 Minutes

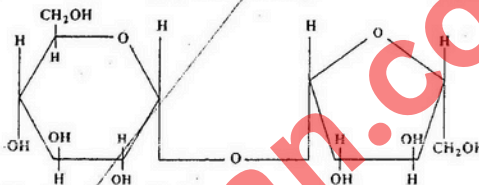
OBJECTIVE

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

G.U.J-1-24

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)