

BIOLOGY
GROUP : SECOND

TIME: 20 MINUTES
MARKS: 17

OBJECTIVE**Obj-C, 2-22**

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.

QUESTION NO. 1

- 1 Percentage of O₂ in biomass of man
(A) 18 % (B) 10% (C) 65 % (D) 50 %
- 2 80 % of the total RNA in the cell is
(A) m RNA (B) r RNA (C) t RNA (D) mi RNA
- 3 For enzymes of human body, optimum temperature is
(A) 30 °C (B) 25 °C (C) 45 °C (D) 37 °C
- 4 Major component of primary wall is
(A) Cellulose (B) Lignin (C) Pectin (D) Silica
- 5 Number of capsomeres in the capsid of adeno virus is
(A) 152 (B) 252 (C) 162 (D) 262
- 6 E. Coli is an example of
(A) Bacilli (B) Cocci (C) Spirochete (D) Spiral
- 7 Cause of African sleeping sickness is
(A) Trichonympha (B) Trypanosoma (C) Amoeba (D) Paramecium
- 8 Yeasts belong to group
(A) Zygomycota (B) Basidiomycota (C) Ascomycota (D) Deuteromycota
- 9 Which of the following are considered as amphibians of the plants ?
(A) Ferns (B) Gymnosperms (C) Angiosperms (D) Bryophytes
- 10 Blood of *Anodonta* bears
(A) Myoglobin (B) Haemoglobin (C) Bilirubin (D) Haemocyanin
- 11 Kangaroo has abdominal pouch the marsupium where they rear their young ones, belong to subclass
(A) Prototheria (B) Metatheria (C) Eutheria (D) Myriapoda
- 12 In anaerobic respiration, pyruvic acid is not oxidized and turns into
(A) Ethane (B) Methane (C) Methyl alcohol (D) Ethyl alcohol
- 13 Which of the following is not an accessory pigment ?
(A) Chlorophyll a (B) Chlorophyll b (C) Carotene (D) Xanthophyll
- 14 Utilization of the products of digestion for production of energy or synthesis of cellular material is known as
(A) Ingestion (B) Digestion (C) Assimilation (D) Absorption
- 15 Respiratory pigment present in muscles is
(A) Haemoglobin (B) Myoglobin (C) Myofibril (D) Bilirubin
- 16 Which of the following is mismatched about RBC ?
(A) Haemoglobin (B) Bone marrow (C) Transport of O₂ (D) Fibrinogen
- 17 Which of the following is irrelevant for heart of amphibian ?
(A) Right atrium (B) Right ventricle (C) Truncus arteriosus (D) Sinus venosus

QUESTION NO. 2 Write short answers of any Eight (8) parts of the following

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(i)	How the structure of Lecithin molecule is suitable for it to become part of cell membrane ?
(ii)	The powerful enzyme , pepsin is produced in inactive form pepsinogen , why ?
(iii)	For enzyme activity why optimum pH is necessary ?
(iv)	What happens if non competitive inhibitor combines with enzyme ?
(v)	What are toadstools ? Give example
(vi)	Write down two similarities between fungi and plants
(vii)	What do you know about nematocysts ?
(viii)	What is swim bladder ?
(ix)	How insects are beneficial to humans ?
(x)	Define marsupium
(xi)	Define chemiosmosis
(xii)	What is alcoholic fermentation ?

QUESTION NO. 3 Write short answers of any Eight (8) parts of the following

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(i)	What is hydroponic culture technique ? Give its applications
(ii)	What is parasitology ?
(iii)	By which disease the liver and muscles are filled with glycogen ? Write causes of that disease
(iv)	Why peroxisome is named peroxisome ? Write its functions in cell
(v)	Which mold had played infamous role in Irish famine ? Write structure of that water mold
(vi)	How lime stone deposits are formed in the bottom of ocean ?
(vii)	How does slime mold reproduce ?
(viii)	How green algae differ from plants ?
(ix)	Write scientific names of four plants belonging to family solanaceae
(x)	Why sphenopsida are called arthropytes ?
(xi)	Why body cavity of Cockroach is known as haemocoel ?
(xii)	Compare plasmolysis with deplasmolysis

QUESTION NO. 4 Write short answers of any Six (6) parts of the following

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(i)	What are prions ?
(ii)	Differentiate between micro aerophilic and facultative bacteria
(iii)	How leguminous plants fix nitrogen ?
(iv)	Why tubular digestive system is better than sac like digestive system ?
(v)	Write down composition of gastric juice and how its secretion is regulated ?
(vi)	Why respiratory distress syndrome is common in infant with gestation period less than 7 months ?
(vii)	Differentiate between pleura and diaphragm
(viii)	What changes occur in chest cavity of man during inspiration ?
(ix)	Why smoking in young adults is the most potential threat of lungs cancer ?

SECTION-II

Note: Attempt any Three questions from this section

8 x 3 = 24

- Q.5 (A) Why organelles and cell level of organization is important for life along with molecular level ?
(B) How cardiac cycle works in Man ? Give its various stages and its regulation
- Q.6 (A) Describe the importance of water for life
(B) What are the various economic losses due to fungi ?
- Q.7 (A) Write down the characteristics and economic importance of cyanobacteria
(B) Discuss different evolutionary steps in evolution of megaphyll
- Q.8 (A) Write a note on the history of two to five kingdom system
(B) Explain the phenomenon of non-cyclic phosphorylation
- Q.9 (A) Compare prokaryotic cell with that of eukaryotic cell
(B) Discuss digestion in stomach of man