IOLOGY		TIME: 20 MINUTES
GROUP : SECOND	OBJECTIVE	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 marks in that question.

DAK-2-24

QUESTION NO. 1

1 When CO_2 enters in Calvin cycle, the immediate acceptor of CO_2 is :
(A) 3-phosphoglycerate (B) 1-3 bisphosphoglycerate
(C) Ribulose bisphosphate (D) Glyceraldehyde phosphate

2 Zymogen cells of gastric glands secrete :
(A) Hydrochloric acid (B) Mucous (C) Maltose (D) Pepsinogen

3 During photorespiration, glycolate diffuses into the membrane bounded organelle is :
(A) Golgi body (B) Peroxisome (C) Ribosome (D) Lysosome

4 Cerebral infraction is also known as :
(A) Stroke (B) Haemorrhage (C) Heart attack (D) Hypertension

5 The uncontrolled production of white blood cells result in :
(A) Thalassaemia (B) Oedema (C) Leucaemia (D) Asthma

6 Triassic, Jurassic and cretaceous are periods of era :
(A) Cenozoic (B) Mesozoic (C) Paleozoic (D) Proterozoic

7 Which of the following is not conjugated molecule ?
(A) Polysaccharide (B) Glycoprotein (C) Glycolipid (D) Lipoprotein

8 The detachable cofactor of an enzyme is called :
(A) Apoenzyme (B) Co-enzyme (C) Activator (D) Prosthetic group

9 Prokaryotic cell wall has :
(A) Cellulose (B) Cutin (C) Lignin (D) Peptidoglycan

10 Which one is an insect ?
(A) Cray fish (B) Jelly fish (C) Silver fish (D) Star fish

11 The thick walled reproductive cell of cyanobacteria is called :
(A) Heterocyst (B) Akinete (C) Hormogonia (D) Trichome

12 Late blight of potato is caused by :
(A) Slime mold (B) Ascomycota (C) Oomycota (D) Zygomycota

13 The ecologically important bio-indicator of air pollution :
(A) Mycorrhizae (B) Lichen (C) Yeast (D) Bacteria

14 The earliest group of vascular plant is :
(A) Psilopsida (B) Pteropsida (C) Lycopsida (D) Sphenopsida

15 The pores from which water leaves the body of sponges are called :
(A) Mouth (B) Anus (C) Ostuim (D) Osculum

16 The body cavity of nematoda is :
(A) Coelom (B) Pseudocoelom (C) Blastocoel (D) Haemocoel

17 Yellow to orange colour pigments present in chloroplast are :
(A) Chlorophyll 'a' (B) Carotenoids (C) Carotenes (D) Xanthophylls

D

ROUP : SECOND

SUBJECTIVE PART

SECTION – I

MARKS: 68

DGK-2-24

QUESTION NO. 2 Write short answers to any Eight (8) of the following 16

i	Define metabolism, name its two processes.
ii	How would you differentiate apoenzyme from holoenzyme ?
iii	What is Lock and Key model ? Who proposed it ?
iv	Enlist two conditions that destroy enzyme catalysis by disrupting bonds between atoms in an enzyme.
v	How do fungi resemble animals ?
vi	What are saprobic fungi ? Write their effect on environment.
vii	How does sac like digestive system contrast with tube like digestive system ?
viii	Define metamorphosis. Write its types.
ix	Write economic importance of Sharks.
x	What is syrinx ? Give its function.
xi	How ATP is formed during light dependent reaction ?
xii	What is net production of ATP in glycolysis ?

QUESTION NO. 3 Write short answers to any Eight (8) of the following 16

i	Differentiate chemotherapy and radiotherapy.
ii	Define biodiversity. Give percentage of different groups of organisms on the earth.
iii	What are plastids ? Give names of different types of plastids.
iv	Give any two important functions of Golgi Apparatus.
v	Write down evolutionary significance of Euglenoids.
vi	Give different types of habitats of algae.
vii	What are choanoflagellates ? Give their similarities with sponges.
viii	Give role of micronucleus and macronucleus of ciliates.
ix	Where carbonic anhydrase is present ? Give its role.
x	How does CO_2 affect oxygen carrying capacity of haemoglobin ?
xi	Differentiate symplast and apoplast pathways taken by water to reach xylem tissues.
xii	How can we avoid heart attack ?

QUESTION NO. 4 Write short answers to any Six (6) of the following 12

i	What is Poliomyelitis ? Give its causes.
ii	Write the types of spiral shaped bacteria.
iii	Why Bryophytes are called amphibians of plants ?
iv	What are sori and false indusium?
v	Define Double Fertilization ? Give its importance.
vi	What is protonema ? In which group of plants it is found ?
vii	Define symbiotic nutrition. Give one example.
viii	Compare antiperistalsis and peristalsis.
ix	Write functions of Lacteals.

SECTION-II

Note: Attempt any Three questions from this section 8 x 3 = 24

Q.5.(A)	Compare deductive reasoning with inductive reasoning.	2+2
(B)	How man is responsible for respiratory disorders ? Comment.	4
Q.6.(A)	Discuss the Watson and Crick Model of DNA and draw a labeled diagram.	3+1
(B)	Write different methods of Asexual reproduction in Fungi.	1+1+1+1
Q.7.(A)	What are plastids ? Describe types of plastids and functions.	1+1+2
(B)	Define a parasite. Write a note on parasitic nutrition.	1+3
Q.8.(A)	Write an account on AIDS	1+2+1
(B)	What is Transpiration ? Describe its different types.	4
Q.9.(A)	What are physical methods to control bacteria ?	1x4
(B)	Explain that chloroplasts are the sites of photosynthesis in plants ?	4