

Roll No _____ (To be filled in by the candidate) (Academic Sessions 2015 – 2017 to 2017 – 2019)

BIOLOGY

218-(INTER PART – I)

Time Allowed : 20 Minutes

Q.PAPER – I (Objective Type)

GROUP – I

Maximum Marks : 17

PAPER CODE = 6461

Note : Four possible answers A, B, C and D to each question are given. The choice which you think is correct, fill that circle in front of that question with Marker or Pen ink in the answer-book. Cutting or filling two or more circles will result in zero mark in that question.

1-1	A group of similar cells that perform similar function is called :
	(A) Organ (B) Tissue (C) System (D) Organelle
2	Covalent bond between two monosaccharides is called :
	(A) Glycosidic bond (B) Peptide bond (C) Hydrogen bond (D) Ester bond
3	Optimum pH for action of pancreatic lipase is :
	(A) 3.00 (B) 5.00 (C) 7.00 (D) 9.00
4	De Duve discovered cell organelle :
	(A) Mitochondria (B) Lysosome (C) Plastids (D) Golgi complex
5	Which one is not a viral disease :
	(A) Cow pox (B) Mumps (C) Tetanus (D) Measles
6	Mesosomes are internal extensions of :
	(A) Cell wall (B) Cell membrane (C) Golgi complex (D) Endoplasmic reticulum
7	Amoeba moves and obtains food by means of :
	(A) Flagella (B) Pseudopodia (C) Flexing (D) Cilia
8	Parasitic fungi directly absorb nutrients from living host by :
	(A) Haustoria (B) Roots (C) Rhizoids (D) Gametangia
9	In psilopsida sporangia are produced at :
	(A) Tips of branches (B) In the axils of branches (C) Margins of leaves (D) Axils of leaves
10	In mollusca, a blue respiratory pigment is present called :
	(A) Haemoglobin (B) Haemoerythrin (C) Prothombin (D) Haemocyanin
11	Cartilaginous fishes contain scales :
	(A) Placoid (B) Cycloid (C) Ganoid (D) Ctenoid
12	Calvin cycle is also known as :
	(A) C ₃ pathway (B) C ₂ pathway (C) C ₄ pathway (D) C ₅ pathway
13	Oxygen released during photosynthesis comes from :
	(A) Water (B) CO ₂ (C) Glucose (D) Chlorophyll
14	Organisms that live upon or within another organism are called :
	(A) Predators (B) Pests (C) Parasites (D) Hosts
15	During photorespiration glycine is converted into serine in :
	(A) Mitochondria (B) Golgi complex (C) Chloroplast (D) Ribosome
16	The total transpiration through cuticle is :
	(A) 5 – 7% (B) 1 – 7% (C) 2 – 4% (D) 2 – 5%
17	Passive immunity is developed by injecting :
	(A) Vaccine (B) Serum (C) Antiserum (D) Antibiotics

SECTION – I

LHR-G1-11-18

2. Write short answers to any EIGHT (8) questions :

16

- (i) Differentiate between anatomy and morphology.
- (ii) Define ecosystem with an example.
- (iii) Differentiate between procariotique and eucariotique.
- (iv) Differentiate between substrate and active site of enzymes.
- (v) Define feed back inhibition of enzymes with diagram.
- (vi) What is induce fit model of enzyme action, who proposed it?
- (vii) Differentiate between oligochaeta and polychaeta.
- (viii) What is meant by arachnida, give its two features?
- (ix) Differentiate between gastropods and cephalopods.
- (x) What is regeneration, give its importance?
- (xi) What is meant by parasexuality, give its importance?
- (xii) Differentiate between conidiphores and coenocytic hypha.

3. Write short answers to any EIGHT (8) questions :

16

- (i) Write down four postulates of germ theory of diseases by Robert Koch.
- (ii) Write four important features of algae.
- (iii) What are diatoms? Write their importance.
- (iv) What are the red tides? How they are formed?
- (v) What are the apicomplexans?
- (vi) What are the fronds?
- (vii) Write botanical name of two plants belong to family solanaceae.
- (viii) Write photolysis of water in photosynthesis.
- (ix) What is Z-scheme of phosphorylation?
- (x) Write the role of human pancreas in digestion.
- (xi) What are the piles?
- (xii) Differentiate between obligate parasite and facultative parasite.

4. Write short answers to any SIX (6) questions :

12

- (i) Give functions of smooth endoplasmic reticulum.
- (ii) What is nucleolus? Give its function.
- (iii) Define heat of vaporization. Give heat of vaporization of water.
- (iv) What is imbibition?
- (v) What is honey dew? Give its composition.
- (vi) Give percentage of CO₂ in arterial and venous blood.
- (vii) What are the important factors which affect the capacity of hemoglobin to combine with oxygen?
- (viii) Write different ways of respiration in frog.
- (ix) What is larynx or voice box?

SECTION – II

Note : Attempt any THREE questions.

5. (a) Write a note on population and community level of biological organization. 4
- (b) Discuss two main types of immunity. 4
6. (a) Give an account of acylglycerols. 4
- (b) Write down economic losses due to fungi. 4
7. (a) Define cell membrane. Explain its functions. 4
- (b) Write a note on digestion in amoeba. 4
8. (a) Write a note on small-pox and polio. 4
- (b) Sketch Krebs Cycle. (No description) 4
9. (a) Describe structure and reproduction in Nostoc. 4
- (b) Discuss evolution of leaf. 4

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BIOLOGY

218-(INTER PART – I)

Time Allowed : 20 Minutes

Q.PAPER – I (Objective Type)

GROUP – II

Maximum Marks : 17

PAPER CODE = 6468

Note : Four possible answers A, B, C and D to each question are given. The choice which you think is correct, fill that circle in front of that question with Marker or Pen ink in the answer-book. Cutting or filling two or more circles will result in zero mark in that question.

1-1	Thalassaemia is also called : (A) Cooley's anaemia (B) Thomas anaemia (C) Peter's anaemia (D) Mendl's anaemia
2	All fungal nuclei are haploid except for transient diploid : (A) Spores (B) Zygote (C) Conidia (D) Zygosporos
3	The single stranded RNA-tumor viruses are : (A) Spherical (B) Elongated (C) Spiral (D) Cubical
4	The asexual reproduction in sponges is by : (A) Binary fission (B) Transverse fission (C) Budding (D) Parthenogenesis
5	An ovule is an integumented in dehiscent : (A) Microsporangium (B) Megasporangium (C) Sporangium (D) Seed
6	Hydrogen bonds between adenine and thymine are : (A) Three (B) Four (C) Five (D) Two
7	The heart of fishes is : (A) Single circuit (B) Double circuit (C) Triple circuit (D) Multi circuit
8	When cocci occur in pairs, their arrangement is : (A) Tetrad (B) Diplococcus (C) Sarcina (D) Streptococci
9	Chloroplasts has a double membranous envelope that encloses dense fluid filled region known as : (A) Matrix (B) Stroma (C) Thylakoid (D) Granum
10	The bioelements which account for 99% of the total mass in the human's body are : (A) Four (B) Six (C) Eight (D) Three
11	Ascaris lumbricoides is an intestinal parasite of : (A) Horse (B) Man (C) Donkey (D) Monkey
12	An enzyme reacts only with its specific : (A) Surface (B) Product (C) Substrate (D) Inhibitor
13	Enlargement of spleen is seen in : (A) Blood cancer (B) Thalassaemia (C) Odema (D) Hepatitis
14	Thylakoid membranes are involved in ATP synthesis by a process known as : (A) Photolysis (B) Glycolysis (C) Chemiosmosis (D) Redox process
15	The enzyme that digest carbohydrates are : (A) Lipase (B) Amylase (C) Pepsin (D) Erypsin
16	The classification of algae into phyla is largely based on the composition of : (A) Cell wall (B) Cell membrane (C) Cytoplasm (D) Pigments
17	Robert Hooke reported his work in his famous publication known as : (A) Micrographia (B) Biologia (C) Zoologia (D) Britanica

SECTION – I

LHR-G2-11-18

2. Write short answers to any EIGHT (8) questions :

16

- (i) Differentiate between micromolecules and macromolecules.
- (ii) Differentiate between gene therapy and chemotherapy.
- (iii) What is effect of changed pH on the working of enzymes?
- (iv) Differentiate between competitive and non-competitive inhibitors.
- (v) What is meant by optimum temperature? Give an example.
- (vi) Write down biological classification of corn.
- (vii) Differentiate between ascus and basidium.
- (viii) What are toad stools? Give example.
- (ix) What is diaphragm? In which group of animals it is found?
- (x) Differentiate between coelomates and acoelomates.
- (xi) Differentiate between diploblastic and triploblastic animals.
- (xii) Write down affinities of echinoderms with hemichordates.

3. Write short answers to any EIGHT (8) questions :

16

- (i) Differentiate between amphitrichous and peritrichous bacteria.
- (ii) Write down the importance of algae.
- (iii) Write down evolutionary significance of euglenoids.
- (iv) How flagellates obtain food?
- (v) Write down the ecological role of dinoflagellates.
- (vi) Differentiate between microgametophyte and megagametophyte.
- (vii) Define circinate vernation. Give an example.
- (viii) Differentiate between photophosphorylation and oxidative phosphorylation.
- (ix) Define alcoholic fermentation. Write its equation.
- (x) How Sundew (Drosera) shows ^{its} insectivorous activity?
- (xi) Differentiate between intracellular and extracellular digestion.
- (xii) Enlist the enzymes of digestive juice of pancreas with their function.

4. Write short answers to any SIX (6) questions :

12

- (i) Define autophagosome.
- (ii) What is resolution of human eye and electron microscope?
- (iii) Write structural formula of ribofuranose and glucopyranose.
- (iv) What do you know about bleeding in plants?
- (v) What is cell-mediated and humoral immune response?
- (vi) What is the rate of breathing at rest and during exercise?
- (vii) Differentiate between bronchi and bronchioles.
- (viii) What is diving reflex?
- (ix) What are the fronds?

SECTION – II

Note : Attempt any THREE questions.

5. (a) How biology has helped mankind in construction of environment? 4
- (b) How CO₂ concentration and humidity affect the rate of transpiration? 4
6. (a) Explain the structure of DNA. 4
- (b) Write a note on ascomycota. 4
7. (a) What are lysosomes and explain its phagocytic role with the help of diagram? 4
- (b) Discuss digestion and absorption in small intestine. 4
8. (a) Explain lytic cycle of virus in bacteria. 4
- (b) Sketch Calvin Cycle (no description). 4
9. (a) Discuss nutrition in bacteria. 4
- (b) Describe prothallus of adiantum. 4