Name of the Chapter : LIFE PROCESSES

I. There is a range of strategies by which the food is taken in and used by the organisms in heterotrophic nutrition. Some organisms breakdown the food material outside the body and then absorb it. Others take in whole material and break it down inside their bodies. What can be taken in and broken down depends on the body design and functioning. Some others derive nutrition from plants and animals without killing them.

- 1. Organisms which derive nutrition from plants and animals without killing them.
- A. Parasites
- B. Saprophytes
- C. Heterotrophs
- D. Autotrophs
- 2. In which part of amoeba complex food particles are broken down into simpler ones.
- A. Cytoplasm
- B. Pseudopodia
- C. Nucleus
- D. Food vacuole
- 3. Which of the following is an example of saprotroph.
- A. Cuscuta
- B. Sugarcane
- C. Bread mould
- D. Amoeba
- 4. Taking in whole material and breaking it down inside the body is
- A. Parasitic nutrition
- B. Holozoic nutrition
- C. Saprophytic nutrition
- D. Symbiosis
- 5. Heterotrophic nutrition involves
- A. Production of simple sugar from inorganic compounds
- B. Utilisation of chemical energy to prepare food
- C. Utilisation of energy obtained by plants



- 1. Which of these correctly represent the labels $\,B \:C \:D$ and E
- A. Pancreas, Oesophagus, Stomach, Liver
- B. Oesophagus , Liver , Stomach , Pancreas
- C. Stomach , Liver , Oesophagus , Pancreas
- D. Oesophagus, Pancreas, Liver, Stomach
- 2. Villi are present in
- A. D
- B.E
- C. F
- D. A
- 3. The enzyme that is released by label A
- A. Tripsin
- B. Amino acids
- C. Amylase
- D. Intestinal juices

- 4. The movements that occur along part B to push the food forward.
- A. Rotation
- B. Peristalsis
- C. Flexion
- D. Protrusion
- 5. In case of diarrhoea, which major process does not takes place normally in region G?
- A. Absorption of food
- B. Absorption of water
- C. Secretion of hormones
- D. Removal of waste material
- III.



1. The pathway of respiration common in all living organisms is X; it occurs in the Y and the products formed are two molecules of Z. Identify X Y Z and select the correct answer.

Х	Y	Z
A. Glycolysis	Mitochondria	Pyruvic acid
B. Glycolysis	Cytoplasm	Pyruvic acid
C. Citric acid cycle	Cytoplasm	Phosphate
D. Kreb's cycle	Mitochondria	Acetyl CoA

2. During vigorous physical exercise, lactic acid is formed from glucose inside the muscle cells because

- A. there is lack of oxygen
- B. there is lack of water
- C. there is excess of carbon dioxide
- D. none of the above
- 3. Type of respiration seen during fermentation
- A. Aerobic
- B. Anaerobic
- C. Reduction
- D. Oxidation
- 4. End product of Aerobic respiration
- A. NADH
- B, Oxygen
- C. ATP
- D. CO2 +ATP+H2O
- 5. Amount of energy released is more during
- A. Anaerobic respiration
- B. Fermentation
- C. Aerobic respiration
- D. Reduction

IV. Blood transport food, Oxygen and waste materials in our bodies. It consists of plasma as a fluid medium. A pumping organ [heart]is required to push the blood around the body. The blood flow through the chambers of heart in a specific manner and direction .While flowing throughout the body, blood exert a pressure against the wall or a vessel.

1.Oxygenated blood from lungs enters left atrium through

A. vena cava B. pulmonary artery C. pulmonary vein D. Aorta

2. The rate of blood flow in the capillaries is very low because capillaries are

A. very narrow and have high resistance

B. Much wide and have low resistance

C. Very narrow and have low resistance

D. Much wide and have high resistance

3. Which of the following statements are true about human heart?

A.It is a hollow muscular organ

B. It is four chambered having three auricles and one ventricle.

C. It has different chambers to prevent Oxygen rich blood from mixing with the blood containing Carbondioxide

D. BOTH A & C

4. Study the table below and select the row that has correct information .

BODY FLUID	CONTENTS
A. Blood	plasma + RBC+
	WBC+platelets
B. Plasma	Blood RBC
C. Lymph	Plasma +RBC
D. Serum	Plasma + RBC +WBC

V. Our body needs to remove the wastes that build up from cell activities and from digestion . If these wastes are not removed , then our cells can stop working and we can get very sick. The organs of excretory system consists of a pair of kidneys, a pair of ureters , a urinary bladder and a urethra. Each kidney is made up of nearly one million complex tubular structures called nephrons. The formation of urine involves various processes that takes place in the different parts of the nephrons. Each nephron consists of a cup- shaped upper end called Bowman's capsule containing a bunch of capillaries called glomerulus. Bowman's capsule leads to tubular structure, proximal convoluted tubule, loop of Henle and distal convoluted tubule which ultimately joins the collecting tubule.

1. The following substances are the excretory products in animals. Choose the least toxic form.

A. Urea

B.Uric acid

C. Ammonia

D. Carbondioxide

2. Glomerular filtrate is first collected by

A. Distal convoluted tubule

B. proximal convoluted tubule

C. Bowman's capsule

D. loop of Henle

3. The out line of principal events of urination is given below in random order.

I) stretch receptors on the wall of urinary bladder send signals to the CNS.

II) The bladder fills with urine and become distended.

III) Micturition

IV)CNS passes on motor messages to initiate the contraction of smooth muscles of bladder and simultaneous relaxation of urethral sphincter. The correct sequence of the events is

A. I \rightarrow II \rightarrow III \rightarrow IV

B. IV \rightarrow III \rightarrow II \rightarrow I

C. II \rightarrow I \rightarrow IV \rightarrow III

D. III \rightarrow II \rightarrow IV

4. Urine formation occurs through

A. Ultrafiltration, reabsorption, secretion and osmosis.

B. secretion, osmosis, ultrafiltration and reabsorption.

C. only filtration and absorption .

D. only osmosis and secretion.

ANSWER KEY :

I 1.A	2.D	3.A	4.B	5. C
II. 1.B	2.C	3.C	4.B	5.B
III. 1.B	2.A	3.B	4.D	5. C
IV 1.C	2.A	3.D	4. A	
V 1.B	2.C	3. C	4. A	

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Following questions consists of two statements – Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given below:

- A. Both assertion and reason are true, and reason is the correct explanation of assertion.
- B. Both assertion and reason are true, but reason is not the correct explanation of assertion.
- C. Assertion is true but reason is false.
- D. Assertion is false and reason is true.

1)	Assertion : kidneys perform a dual function in our body.	1
	Reason : selective reabsorption occurs in the glomerulus.	
2)	Assertion : mammals and birds have four chambered heart .	
	Reason : mammals and birds are warm blooded.	1
3)	Assertion : a mammal has double circulation .	1
	Reason : higher energy need due to endothermy.	
4)	Assertion: veins have valves.	1
	Reason : the pressure for the flow is far lesser compared to arteries.	
5)	Assertion : kidneys purify blood.	1
	Reason : renal vein has more Oxygen than renal artery.	
6)	Assertion : arteries always carry oxygenated blood.	1
	Reason: arteries transport blood from the heart to different parts of the body.	
7)	Assertion : the left atrium and left ventricle are completely separated from the	1
	right atrium and the right ventricle.	
	Reason : oxygenated and deoxygenated blood never mix with each other inside	
	the heart	
8)	Assertion: In plants gaseous exchange takes place by the opening and closing of	1
	guard cells.	
	Reason : The exchange of gases occurs across the surface of stem , roots and	
	leaves.	
9)	Assertion: The Alveoli provide a surface where exchange of gases takes place.	1
	Reason :The Alveolar blood vessels transport oxygenated blood to all the cells of	
	the body.	

10)) Assertion: Tracheal cartilage is present in the throat.		
	Reason: The larynx plays an important role in human speech.		
11)	Assertion: Bread tastes sweet on mastication.	1	
	Reason : Salivary amylase converts starch into sugar.		
12)	Assertion: At high altitudes the pressure of oxygen falls, inside lungs.	1	
	Reason : Oxygen is absorbed very quickly from alveoli to increase breathing		
13)	Assertion : Anaerobic respiration requires more energy as compared to aerobic		
	respiration.		
	Reason : Mitochondria is the power house of the cell	1	
14)	Assertion : Chyme is the food which enters into the intestine from stomach.		
	Reason : Chyme is acidic in nature.	1	
15)	Assertion : During transpiration the evaporating water carries away heat energy.		
	Reason : Due to water loss the osmotic pressure inside leaves increases.	1	
16)	Assertion: Herbivores have longer intestine to allow the cellulose to get digested.		
	Reason : Carnivores have shorter intestine to allow meat to get digested.	1	
17)	Assertion: Lypase helps in the digestion of proteins.		
	Reason : Digestion of proteins in small intestine needs basic medium		
		1	
	ANSWERS: LIFE PROCESSES		
	1. C 2. A 3. A. 4.A 5.C 6. A 7. A 8.B 9.A 10.B 11.A 12.A 13.D 14.A 15.C 16.B 17. D		