

Life Processes Practice Paper 4 Answer Key

1. b) Mushroom
2. d) Producers
3. a) 10%
4. c) formation of lactic acid due to lack of oxygen
5. (a) A and R are true and R is the correct explanation of A.

6. Answer:

The leaf is treated with alcohol to remove the green-colored pigment chlorophyll and the blue-black color is easily visible (in the presence of starch) after treatment with iodine.

7. Answer:

To filter out nitrogenous waste products like urea and uric acid from the blood.
The urinary bladder stores urine.
Urine is excreted through the urethra.

8. Answer:

The blood emerges from the heart under high pressure and flows through arteries. They have thick and elastic walls to withstand this pressure.
Veins have valves to ensure that the blood flows in one direction only.

9. Answer:

- a) 10000J because only 10 % of energy is available for the next trophic level.
- b) No, since the loss of energy at each step is so great that very little usable energy will remain after 4 trophic levels.

10. Answer:

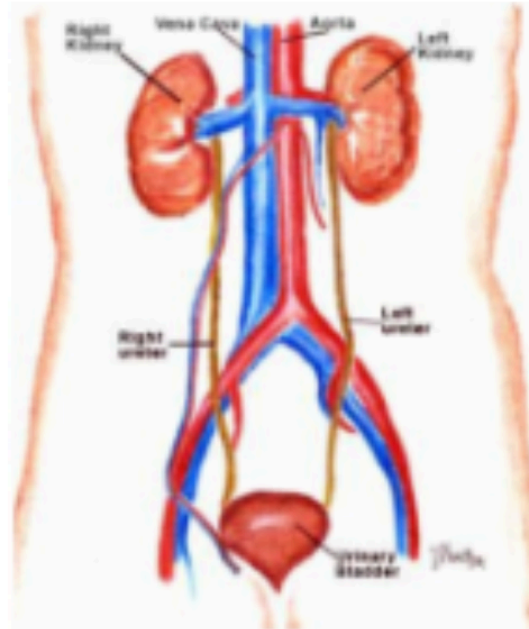
- i. The brain and the spinal cord constitute the central nervous system (CNS).
- ii. The spinal cord is concerned with spinal reflex actions and the conduction of nerve impulses to and from the brain.
- iii. The spinal cord is enclosed in a bony cage called the vertebral column and is surrounded by membranes called meninges which protect it.

11. Answer:

- 11a) Sameer is suffering from diabetes.
Insulin is the hormone responsible for the disease.
The organ that produces insulin is the pancreas.
- 11b) Cytokinins are present in the areas of rapid cell division in plants and abscisic acid inhibits plant growth.

12. Answer:

- a. Excretion is the process that removes harmful metabolic waste such as urea, uric acid, and salts from our bodies.
- b. Nephron is the basic filtration unit present in the kidney.
- c. Diagram of the Human Excretory System is shown below.



- i. Kidney produces urine
- ii. The ureter is a long tube that collects urine from the kidney.
- iii. The urinary bladder stores urine until it is passed out.

13. Answer:

- (i) (a) absence of enzyme cellulase
- (ii) (a) released in small intestine
- (iii) (c) Herbivores have larger small intestine as they eat grasses.
- (iv) (b) muscularis

14. Answer:

- (i) (c) mitochondria
- (ii) (b) glycolysis, cytoplasm, pyruvic acid
- (iii) (b) 2
- (iv) (d) $\text{CO}_2 + \text{ATP} + \text{H}_2\text{O}$

