

Class VII
Science (Bio)

Chapter – 11, Transportation in Plants and Animals

1) In desert plants, photosynthesis is a function of

- (a) stem.
- (b) leaves.
- (c) roots.
- (d) fruits.

Answer: (a) stem.

Explanation. In desert plants, the leaves are modified into spines to reduce the number of stomata and therefore loss of water by transpiration. The green fleshy structure is the stem which performs the function of photosynthesis.

2) The main organ of excretory system in human body is

- (a) lungs.
- (b) heart.
- (c) liver.
- (d) kidney.

Answer: (d) kidney.

Explanation. Our body possesses a pair of kidneys, which are the main organ of excretion. Blood which contains both useful and harmful substances reaches kidneys. Useful substances are absorbed back into blood and harmful substances are filtered through kidneys as urine. The liquid waste is passed out of the body through an opening called urethra.

3) Loss of water in the plants occurs through

- (a) stem.

- (b) leaves.
- (c) roots.
- (d) flowers.

Answer: (b) leaves.

Explanation. The water evaporates through the stomata present on the surface of leaves by the process called transpiration.

4) The largest size of cell present in the blood is

- (a) RBC.
- (b) WBC.
- (c) platelets.
- (d) plasma.

Answer: (b) WBC.

Explanation. There are 3 types of cells present in the blood, WBC, RBC and platelets. The largest amongst them are white blood cells.

5) Pulse rate can be measured by feeling a person's

- (a) nerve.
- (b) artery.
- (c) capillary.
- (d) vein.

Answer: (b) artery.

Explanation. Arteries carry oxygenated blood from heart to organs. They remain deep seated in the body. Veins carrying deoxygenated blood are superficial in position. Some of the arteries are superficial in position. Pulse can be felt from the throbbing of a superficial artery at the wrist.

6) The main medium for transport of oxygen in the body is

- (a) blood.
- (b) water.
- (c) platelets.
- (d) haemoglobin.

Answer: (a) blood.

Explanation. Blood carries oxygen to the cells of the body from the lungs and carbon dioxide from cells to the lungs. RBC present in the blood has haemoglobin which binds with oxygen and transports it to all the parts of the body.

7) The normal blood pressure in humans is

- (a) 80/120 mmHg.
- (b) 120/80 mmHg.
- (c) 120/100 mmHg.
- (d) 100/80 mmHg.

Answer: (b) 120/80 mmHg.

Explanation. The normal value of blood pressure is necessary for the flow of blood in the body and is measured in mmHg. 120mmHg denotes the blood pressure of the heart in a contracted state and 80mmHg is the pressure exerted on blood when heart is in a relaxed state.

8) Arteries are known to bear the high blood pressure because of the presence of

- (a) thin wall.
- (b) thick wall.
- (c) semilunar valve.
- (d) tricuspid valve.

Answer: (b) thick wall.

Explanation. Arteries carry oxygen-rich blood from the heart to all parts of the body. Since the blood flow is rapid and at a high pressure, the arteries have thick elastic walls.

9) Antibodies are produced as a reaction to the presence of

- (a) WBC.
- (b) haemoglobin.
- (c) RBC.
- (d) antigens.

Answer: (d) antigens.

Explanation. Antibodies are the proteins produced in response to a foreign particle, known as antigens. They protect our body from external infectious organisms.

10) In desert plants, the leaves are reduced to

- (a) thorns.
- (b) tendrils.
- (c) spines.
- (d) bristles.

Answer: (c) spines.

Explanation. In Xerophytic plants, the leaves get modified into spines. The stomata get reduced in number and therefore loss of water by transpiration is reduced.

11) Urea rich blood is filtered in kidney from

- (a) vein.
- (b) capillary.
- (c) artery.
- (d) blood vessel.

Answer: (b) capillary.

Explanation. Urea is one of the waste product which is filtered from capillaries in the glomerulus in the kidneys and then ureters carry urine from the kidney to urethra for disposal.

12) The blood after filtration in the glomerulus is carried away by

- (a) artery.
- (b) arteriole.
- (c) vein.
- (d) venule.

Answer: (b) arteriole.

Explanation. The blood after filtration in the glomerulus is carried away by the efferent arteriole into a capillary bed. The venule formed from these capillaries then joins to form the vein which carries the blood out of the kidney.

13) The blood vessel which carry impure blood, i.e, blood rich in carbon dioxide to lungs is

- (a) pulmonary artery.
- (b) pulmonary vein.
- (c) aorta.
- (d) capillary.

Answer: (a) pulmonary artery.

Explanation. Arteries carry pure, oxygen rich blood from heart to lungs. But pulmonary artery carries carbon dioxide rich blood to lungs.

14) Haemoglobin which binds with oxygen and transports it to all parts of the body is coloured

- (a) green.
- (b) blue.
- (c) yellow.
- (d) red.

Answer: (d) red.

Explanation. Haemoglobin is the red colored pigment present in red blood cells (RBC). Due to the presence of haemoglobin, blood appears red. Most important function of haemoglobin is that it binds with oxygen and transports it to all parts of the body and finally to each and every cell.

15) Double blood circulation occurs in

- (a) reptiles.
- (b) fishes.
- (c) mammals.
- (d) amphibians.

Answer: (c) mammals.

Explanation. In humans, blood passes through heart twice. Once the deoxygenated blood passes and then oxygenated blood passes through the heart.

16) The type of the blood cell which prevents the flow of blood after an injury is

- (a) WBC.
- (b) RBC.
- (c) hemolymph.
- (d) platelets.

Answer: (d) platelets.

Explanation. Platelets are irregularly-shaped, colorless cells that are present in blood. When bleeding from a

wound occurs, the platelets gather around the wound and form a clot to stop bleeding.

17) A natural system of human body to maintain its body temperature is through

- (a) sweating.
- (b) eating.
- (c) sleeping.
- (d) running.

Answer: (a) sweating.

Explanation. Sweating release excess of heat from the body and keeps the body cool. Sweating occurs when the body temperature rises .Evaporation of sweat causes the cooling of the body.

18) The body waste dissolved in water is mainly removed as

- (a) sweat.
- (b) urine.
- (c) blood.
- (d) plasma.

Answer: (b) urine.

Explanation. Body excretes the waste out from the kidney in the fluid form as urine. From the kidney the urine goes into the urinary bladder and is later passed out through the urinary opening called urethra. An adult human being normally passes about 1-1.8 L of urine in 24 hrs.

19) The movement of oxygenated blood from the left auricle to left ventricle and then through the aorta to all parts of the body is called

- (a) extracellular circulation.
- (b) pulmonary circulation.
- (c) systemic circulation.

(d) intracellular circulation.

Answer: (c) systemic circulation.

Explanation. Systemic Circulation is the flow of the blood in the system of blood vessels which carries oxygenated blood away from the heart, to the body and returns deoxygenated blood back to the heart.

20) The main medium for the transport of excretory products in the body is

- (a) blood.
- (b) plasma.
- (c) serum.
- (d) urine.

Answer: (b) plasma.

Explanation. Plasma is the blood's liquid component, which not only carries the blood cells suspended in it but, also serves as a transport system delivering various materials to their destination. Urea is dissolved in plasma and is carried to the kidney for filtration.

21) The primary organ which help in absorption of water from the soil is

- (a) root hair.
- (b) root cap.
- (c) stem hair.
- (d) root nodules.

Answer: (a) root hair.

Explanation. Root hair is in direct contact with the water present between the soil particles. Plant absorbs underground water and minerals through root hair. They increase the surface area of the roots for the absorption of mineral nutrients dissolved in the water.

22) Amongst the given vegetables, the process of transpiration occurs in

- (a) tomato.
- (b) potato.
- (c) spinach.
- (d) carrot.

Answer: spinach.

Explanation. Transpiration is the process of loss of water through tiny pores called stomata, present on the surface of leaves. Amongst these vegetables, spinach is leaf, potato is underground stem, tomato is a fruit and carrot is root.

23) Birds excrete waste in form of

- (a) urea.
- (b) uric acid.
- (c) urine.
- (d) ammonia.

Answer: (b) uric acid.

Explanation. Birds, lizards and snakes are land animals. They have limited supply of water therefore, they excrete a semi solid, white colored compound, known as uric acid.

24) Stomata open and close due to

- (a) presence of valves.
- (b) hormonal control.
- (c) turgor pressure of guard cells.
- (d) concentration gradient of the gases.

Answer: (d) turgor pressure of guard cells.

Explanation. Opening and closing of stomata is guarded by the guard cells. Stomata open when guard cells are turgid (full of water) and closes when guard cells are flaccid (loss of water).

25) The food is transported in the phloem in the form of

- (a) glucose.
- (b) sucrose.
- (c) amino acids.
- (d) fats.

Answer: (b) sucrose.

Explanation. The Phloem, vascular tissue of the plant is responsible for transportation of food to all the plant parts. The food prepared by the leaves is transported in form of sucrose.

21) Homeostasis is a complex process, which is controlled by

- (a) platelets.
- (b) RBC.
- (c) WBC.
- (d) hemolymph.

Answer: (a) platelets.

Explanation. Platelets are the type of a blood cells that help prevent bleeding by causing blood clots to form at the site of an injury. Homeostasis is a complex process, which causes the bleeding process to stop.

26) Pure oxygenated blood is pumped from the

- (a) left atrium
- (b) right ventricle.
- (c) right atrium.
- (d) left ventricle.

Answer: (d) left ventricle.

Explanation. Oxygenated blood is pumped from the left ventricle of the heart through arteries to supply

peripheral tissues. The deoxygenated blood returns to the right atrium of the heart through veins..

28) The average pulse rate of a human being is

- (a) 70 beats per minute.
- (b) 72 beats per minutes.
- (c) 82 beats per minutes.
- (d) 92 beats per minute.

Answer: (b) 72 beats per minute.

Explanation. The heart beat and pulse rate are same. A resting person usually has a pulse rate between 72 and 80 beat per minute.

29) A rhythmic contraction and relaxation of the cardiac muscles, is known as

- (a) breathing.
- (b) heart stroke.
- (c) heart beat.
- (d) pulse rate.

Answer: (c) heart beat.

Explanation. The muscles of the heart chambers contract and relax rhythmically. This rhythmic contraction is followed by its relaxation, which constitutes a heartbeat. Heartbeat continues every moment of our life.

30) The appearance of white patches on the colored clothes, during hot summer months are due to presence of

- (a) salt in sweat.
- (b) sugar in sweat.

- (c) water in sweat.
- (d) amino acids in sweat.

Answer: (a) salt in sweat.

Explanation. In hot summers, the excessive sweating results into patch formation on the clothes. Sweat contains salt released from the body .

