BIOLOGY

BOOKS - PREMIERS PUBLISHERS

TRANSPORTATION IN PLANTS

Text Evaluation Choose The Best Answer

1. Active transport involves

A. movement of molecules from lower to higher concentration

B. expenditure of energy

C. It is an uphill task

D. all of the above

Answer: D

Watch Video Solution

2. Water which is absorbed by roots is transported to aerial parts of the plant through

A. Cortex

B. epidermis

C. Phloem

D. xylem

Answer: D

Watch Video Solution

3. During transpiration there is loss of

A. carbon dioxide

B. Oxygen

C. Water

D. None of the above

Answer: C

Watch Video Solution

4. Root hairs are

A. Cortical cell

B. projection of epidermal cell

C. unicelluar

D. both (a) and(C)

Answer: D

 Watch Video Solution

5. Which of the following process requires energy ?

A. Active transport

B. diffusion

C. osmosis

D. all the them

Answer: A

Watch Video Solution

6. The wall of human heart is made of

A. Endocardium

B. epicardium

C. myocardium

D. all of the above

Answer: D

Watch Video Solution

7. Which is the sequence of correct blood flow

A. Ventricle - atrium - vein - arteries

B. Atrium - ventricle - veins - arteries

C. Atrium - ventricle -arteries - vein

D. Ventricles - vein - atrium - arteries

Answer: C

Watch Video Solution

8. A patient with blood group O was injured in an accident and has lost . Which blood group

the doctor should effectively use for transfusion in this condition ?

A. O group

B. AB group

C. A or B group

D. All blood group

Answer: A

 Watch Video Solution

9. Heat ' of heart' is called

A. S A node

B. AV node

C. Pukinje fibres

D. Bundle of his

Answer: A

 Watch Video Solution

10. Which one of the following regarding blood composition is correct

A. Plasma - blood + Lymphocyte

B. Serum - blood + fibrinogen

C. Lymph -Plasma +RBC +WBC

D. Blood -plasma +RBC +WBC +platelets

Answer: D

Watch Video Solution

Text Evaluation Fill In The Blanks

1. _____ involes evporative loss of water from aerial parts .

Watch Video Solution

2. Water enters the root cell through a _____ plasma membrane .

Watch Video Solution

3. Structures in roots that help to absorb water are _____.

Watch Video Solution

4. Normal blood pressure is _____.

Watch Video Solution

5. The normal human heartbest rate is about _____ times per minute .

Watch Video Solution

Text Evaluation Match The Following

1. Match the following columns

Column I		Column II	
A	Symplastic pathway	*(i)*	Leaf
B	Transpiration	*(ii)*	Plasmodesmata
C	Osmosis	*(iii)*	Pressure in xylem
D	Root Pressure	*(iv)*	Pressure gradient

Watch Video Solution

2.

Column I		Column II	
A	Leukemia	*(i)*	Thrombocytes
B	Platelets	*(ii)*	Phagocyte
C	Monocytes	*(iii)*	Decrease in leucocytes
D	Leucopenia	*(iv)*	Blood Cancer
E	AB blood group	*(v)*	Allergic condition
F	O blood group	*(vi)*	Inflammation
G	Eosinophil	*(vii)*	Absence of antigen
H	Neutrophils	*(viii)*	Absence of antibody

Watch Video Solution

Text Evaluation State Whether True Or False If False Write The Correct Statement

1. The phloem is responsible for the translocation of food .

Watch Video Solution

2. plants lose water by the process of transpiration .

Watch Video Solution

3. The form of sugar transported through the phloem is glucose .

Watch Video Solution

4. In apopastic movement the water travels through the cell membrane and entre the cell .

Watch Video Solution

5. When guard cells lose water the stoma opens

Watch Video Solution

6. Initiation and stimulation of heat beat take place by nerves .

Watch Video Solution

7. All veins carry deoxygented bold .

Watch Video Solution

8. WBC defend the body from bacterial annd viral infections .

Watch Video Solution

9. The closure of the mittal and tricuspid valves at the start of the ventricular systole produces the first sound 'LUBB '

Watch Video Solution

Text Evaluation Answer In A Word Or Sentence

1. Name two layered protective covering of human heart .

Watch Video Solution

2. What is the shape of RBC in human blood?

Watch Video Solution

3. Why is the colour of the blood red ?

Watch Video Solution

4. Which kind of cells are found in the lymph ?

Watch Video Solution

5. Name the heart valve associated with the major arteries leaving the ventricles.

Watch Video Solution

6. Mention the arery which supplies blood to the heart muscle .

Watch Video Solution

Text Evaluation Short Answer Questions

1. What causes the opening and closing of guard cells of stomata during transpiration?

Watch Video Solution

2. What is cohesion ?

Watch Video Solution

3. Trace the pathway followed by water molecules from the time it enters a plant root to the time it escapes into the atmosphere from a leaf.

Watch Video Solution

4. What would happen to the leaves of a plant that transpires more water than its absorption in the roots ?

Watch Video Solution

5. Describe the structure and working of the human heart .

Watch Video Solution

6. Why is the circulation in man referred to as double circulation ?

Watch Video Solution

7. What is are heat sounds ? How are they produced ?

Watch Video Solution

8. What is the importance of values in the heart ?

Watch Video Solution

9. Who discovered RH factor ? Why was it named so ?

Watch Video Solution

10. How are arteries and veins structuarlly different from one another ?

Watch Video Solution

11. Why is the sinoatrial node called the pacmaker of heart ?

Watch Video Solution

12. Differntiate between systemic circulationn and pulmonary circulation ?

Watch Video Solution

13. The complete events of cardiac cycle last for 0.8 sec . What is the timing for each event ?

Watch Video Solution

Text Evaluation Give Reasons For The Following Statements

1. Minerals cannot be passively absorbed by the roots .

Watch Video Solution

2. Guard cells are responsible for opening and closing of the stomata

Watch Video Solution

3. The movement of substances in the phloem can be in any direction .

Watch Video Solution

4. Minerals in the plants are not lost when the leaf falls .

Watch Video Solution

5. The walls of the right ventricle are thicker than the right auricles .

Watch Video Solution

6. Mature RBC in mammals do not have cell organelles .

Watch Video Solution

Text Evaluation Long Answer Question

1. How do plants absorb water? Explain .

Watch Video Solution

2. What is Transpiration ? Give the importance to transpiration .

Watch Video Solution

3. Why are leucocytes classified as granulocytes and agranulocytes? Name each

cell and mention its functions.

 Watch Video Solution

4. differentiate between ststone and diastole explain the conduction of heart best .

 Watch Video Solution

5. Enumerate the function of blood .

 Watch Video Solution

Text Evaluation Assertion And Reasoning

1. Assertion : RBC plays an important role in the transport of respiratory gases.

Reason : RBC do not have cell organells and nucleus .

A. If both A and R are true and R is correct explanation of A

B. If both A and R are true but R is not the correct explanation of A

C. A is true but R is false

D. Both A and R are false

Answer:

Watch Video Solution

2. Assertion: Persons with AB blood group are called an universal recipients, because they can receive blood from all groups.

Reason: Antibodies are absent in persons with AB blood group.

A. If both A and R are true and R is correct explanation of A

B. If both A and R are true but R is not the correct explanation of A

C. A is true but R is false

D. Both A and R are false

Answer:

Watch Video Solution

Text Evaluation Higher Order Thinking Skills Hot

1. When any dry plant material is kept in water , they swell up . Name and define the phenomenon involved in this change .

Watch Video Solution

2. Why are the walls of the left ventricle thicker than the other chambers of the heart?

Watch Video Solution

3. Doctors use stethoscope to hear the the sound of the heart . Why ?

Watch Video Solution

4. How does the pulmonary artery and pulmonary vein differ in their function when compared to a normal artery and vein ?

Watch Video Solution

5. Transpiration is a necessary evil in plants Explain .

Watch Video Solution

Other Important Questions Answers Choose The Correct Answer

1. Seed swells when placed in water due to:

A. osmosis

B. imbibition

C. hydrolysis

D. all of these

Answer: B

 Watch Video Solution

2. Root hairs occurs in:

A. Meristematic zone

B. Cell elongation zone

C. Cell maturation zone

D. Old root

Answer: C

Watch Video Solution

3. Water in plants is transported by ascent of sap takes place through:

A. cambium

B. xylem

C. phloem

D. epidermis

Answer: B

 Watch Video Solution

4. Absorption of water is increased when:

A. transpiration is increased

B. photosynthesis is increased

C. respiration is increased

D. root pressure is increased

Answer: A

Watch Video Solution

5. Opening of stomata is due to:

A. Turgidity of guard cells

B. Size of guard cells

C. Number of guard cells

D. Amount of CO_2 in the atmosphere

Answer: A

Watch Video Solution

6. Guard cells help in:

A. Fighting against infection

B. Guttation

C. Protecting against grazing.

D. Transpiration

Answer: D

Watch Video Solution

7. Photosynthetic food material is transported in the form of:

A. Glucose

B. Sucrose

C. Starch

D. Fructose

Answer: B

Watch Video Solution

8. Coronary artery supplies blood to:

A. Mammary glands

B. Rib muscles

C. Skin

D. Heart

Answer: D

Watch Video Solution

9. All arteries carry oxygenated blood except:

A. systematic

B. hepatic

C. pulmonary

D. cardiac

Answer: C

Watch Video Solution

10. The colour of lymph is:

A. white

B. pale yellow

C. colourless

D. milky

Answer: C

 Watch Video Solution

11. An artery can be distinguished from a vein in having:

A. thicker wall

B. elastic vessels

C. no valves

D. all of the above

Answer: D

Watch Video Solution

12. Purkinje fibres mainly help in contraction of:

A. right auricle

B. left auricle

C. ventricles

D. Aorta

Answer: C

Watch Video Solution

13. The 'Lubb' and 'Dupp heart sound are due to:

A. opening of heart valves

B. action of papillary muscles

C. closing of heart valves

D. activity of pace maker

Answer: C

Watch Video Solution

14. The closed circulatory system occurs in:

A. cockroach

B. fish

C. mosquito

D. House fly

Answer: B

Watch Video Solution

15. Normal pulse rate is:

A. 80 mm Hg

B. 120 mm Hg

C. 40 mg Hg

D. 90 mm Hg

Answer: D

 Watch Video Solution

16. In the ABO system of blood groups, if both antigens are present but no antibody, the

blood group of the individual would be.....

A. B

B. O

C. AB

D. A

Answer: C

Watch Video Solution

17. Arteries are branches of:

A. capillaries

B. veins

C. aorta

D. none of these

Answer: C

Watch Video Solution

18. Which type of WBCs are found in maximum number?

A. Monocytes

B. Basophils

C. Eosinophils

D. Neutrophils

Answer: D

Watch Video Solution

19. Which of the following are granular WBCs?

(

A. Neutrophils, Basophils, Lymphocytes

B. Eosinophil, Basophil, Monocytes

C. Basophils, Monocytes, Lymphocytes

D. Neutrophils, Eosinophil, Basophil

Answer: D

Watch Video Solution

20. RBCs are concerned with carriage of ..... gases.

A. CO_2

B. O_2

C. Respiratory

D. CO_2 and SO_2

Answer: C

Watch Video Solution

Other Important Questions Answers Fill In The Blanks

1. The contraction of the heart is called____

Watch Video Solution

2. Oxygenated blood is carried by .....

Watch Video Solution

3. Sphygmomanometer measures .....

Watch Video Solution

4. Heart of man is.

Watch Video Solution

5. Pacemaker of the heart .

Watch Video Solution

6. What is the life span of RBC in humans ?

Watch Video Solution

7. Pulmonary artery carry ..... blood.

Watch Video Solution

8. ..... discovered the circulation of blood in man.

Watch Video Solution

9. Semilunar valve is present at the base of .....

Watch Video Solution

10. The heart normally beats ..... Times per minutes in a human adult.

Watch Video Solution

11. Red blood pigment is .....

Watch Video Solution

12. Transpiration helps in the absorption and ..... movement of water and minerals.

Watch Video Solution

13. Water in plants is transported by ascent of sap takes place through .....

Watch Video Solution

14. The absorption water due to expenditure of energy is called .....

Watch Video Solution

15. In plants, the translocation of organic solutes takes place through .....

Watch Video Solution

Other Important Questions Answers Match The Following

1.

Column I		Column II	
A	Superior vena cava	*(i)*	carries deoxygenated blood
B	Inferior vena cava	*(ii)*	Carries oxygenated blood from lungs
C	Pulmonary Artery	*(iii)*	Brings deoxygenated blood from lower parts of body to right atrium
D	Pulmonary vein	*(iv)*	Brings deoxygenated blood from upper parts of body into right atrium.

Watch Video Solution

2. Match the following columns

Column I		Column II	
A	Blood	*(i)*	Carry respiratory gases
B	WBC	*(ii)*	Lubb - Dupp
C	RBC	*(iii)*	Phagocytosis
D	Capillary	*(iv)*	Connective tissue
E	Heart beat	*(v)*	Tiny blood vessel

Watch Video Solution

Other Important Questions Answers State Whther True Or False

1. The human heart beats 72 times per minute.

Watch Video Solution

2. State True or False:Right half of heart receives and pumps off oxygenated blood.

Watch Video Solution

3. Between right auricle and right ventricle seen Mitral valve

Watch Video Solution

4. The force of attraction between the molecules of companion cells is called cohesion.

Watch Video Solution

5. By passive transport sucrose moves into the cells where it is utilised or stored

Watch Video Solution

Other Important Questions Answers Creative Question

1. Origin of heart beat and its conduction is represented by:

A. AV node $\rightarrow$ Bundle of His $\rightarrow$ SA node $\rightarrow$ Purkinje fibres

B. SA node $\rightarrow$ Purkinje fibres $\rightarrow$ AV node $\rightarrow$ Bundle of His

C. Purkinje fibres $\rightarrow$ Purkinje node $\rightarrow$ AV fibres $\rightarrow$ Bundle of His

D. SA node $\rightarrow$ AV node $\rightarrow$ Bundle of His $\rightarrow$ Purkinje fibres

Answer:

2. The cardiac pacemaker in a patient fails to function normally. The doctor finds that an artificial pacemaker is to be grafted in him. It is likely that it will be drafted at the site of.

A. Purkinje system

B. Sinu atrial node

C. Atrio ventricular node

D. Atrio ventricular bundle

Answer:

Watch Video Solution

3. Doctors use stethoscope to hear the sounds produced during each cardiac cycle. The second sound is heard when:

A. AV node receives signal from SA node

B. AV valves open up

C. Ventricular walls vibrate due to rushing in of blood from atria

D. Semi lunar valves close down after the blood flows into vessels from ventricles

Answer:

Watch Video Solution

Other Important Questions Answers Assertion And Reason

1. Assertion: RBC impart red colour to the blood due to the presence of respiratory

pigment haemoglobin.

Reason: The young RBC contain nucleus in man.

A. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

B. If both the assertion and the reason are true, but the reason is not the correct explanation of the assertion.

C. Assertion is true, but the reason is false.

D. Assertion is false, but the reason is true

Answer:

Watch Video Solution

2. Assertion: Osmosis is the movement of solvent molecule from higher concentration to lower concentration.

Reason: Osmosis is the active movement of water.

A. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

B. If both the assertion and the reason are true, but the reason is not the correct explanation of the assertion.

C. Assertion is true, but the reason is false.

D. Assertion is false, but the reason is true

Answer:

Other Important Questions Answers Answer In A Sentence

1. Name the components of circulatory system.

Watch Video Solution

2. What is the role of valves in heart?

Watch Video Solution

3. Mention the composition of plasma.

Watch Video Solution

4. What is normal heart beat in man? How does it occur?

Watch Video Solution

5. Why are auricles and ventricles separated by auricular and ventricular septum?

Watch Video Solution

6. What is a pulse?

Watch Video Solution

7. The instruments used to measure blood pressure is

Watch Video Solution

8. Which blood group is called as “Universal Donor and ‘Universal Recipient'.

Watch Video Solution

9. What is Apoplast pathway?

Watch Video Solution

10. What is transpiration pull ?

Watch Video Solution

11. When does plasmolysis occur?

Watch Video Solution

12. What is adhesion?

Watch Video Solution

Other Important Questions Answers Short Answer Question

1. Define blood pressure .

Watch Video Solution

2. Distinguish between open and closed circulation.

Watch Video Solution

3. Explain the phenomenon of Guttation.

Watch Video Solution

4. What is Coronary circulation?

Watch Video Solution

Other Important Questions Answers Long Answer Question

1. What is lymph? Write its function.

Watch Video Solution

2. Explain the cardiac cycle.

Watch Video Solution

3. Demonstration of Osmosis:

A thistle funnel whose mouth is covered with a semipermeable membrane, is filled with sucrose solution. It is kept inverted in a beaker containing water. The water will diffuse across sugar the membrane due to osmosis and raise the level of the solution solution in the funnel.

Watch Video Solution

4. What is double circulation?

Watch Video Solution

5. Explain the steps involved in Ascent of sap.

Watch Video Solution

6. Write a note on valves of human.

Watch Video Solution

Other Important Questions Answers Higher Order Thinking Skills Hots

1. An unconscious patient is rushed into the emergency room and needs a fast blood transfusion. Because there is no time to check her medical history or determine her blood type,which type of blood should you as her doctor, give her ?

Watch Video Solution

2. The cardiac pacemaker in a patient fails to function normally. The doctor finds that an artificial pacemaker is to be grafted in him. It is likely that it will be drafted at the site of.

Watch Video Solution

3. Water vapour comes out from the plant leaf through the stomatal opening. Through the same stomatal opening carbon dioxide diffuses into the plant during photosynthesis.

Reason out the above statements using one of the following options:

Watch Video Solution

4. Removal of ring wood of tissue outside the vascular cambium from the tree trunk kills it because:

Watch Video Solution

Other Important Questions Answers Give Reason

1. Valves are important in human heart. Give reason.

Watch Video Solution

2. During rainy season wooden door generally swells up - Give reason.

Watch Video Solution

3. Para sympathetic neural signals affects the working of the heart. Give reason.

Watch Video Solution

4. Grapes placed in salt solution shrink. Give reason.

Watch Video Solution

5. Why WBC's are known as phagocytes?

Watch Video Solution