



BIOLOGY

NCERT - FULL MARKS BIOLOGY(TAMIL)

BODY FLUIDS AND CIRCULATION

Questions

1. Name the components of the formed elements in the blood and mention one major function of each of them.

2. What is the importance of plasma proteins?



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3. Match column I with column II:

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Match column I with column II: Column I Column II			
	Column 1		Column 11
(a)	Eosinophils	(i)	Coagulation
(b)	RBC	(ii)	Universal Recipient
(c)	AB Group	(iii)	Resist Infections
(d)	Platelets	(iv)	Contraction of Heart
(e)	Systole	(v)	Gas transport



4. Why do we consider blood as a connective tissue?



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5. What is the difference between lymph and blood?



6. What is meant by double circulation? What is its significance?



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7. What is the difference between lymph and blood?



8. Describe the evolutionary change in the pattern of heart among the vertebrates.



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9. Why do we call our heart myogenic?



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



11. What is the significance of atrio-ventricular node and atrio-ventricular bundle in the functioning of heart?



12. Define a cardiac cycle and the cardiac output.



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



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14. Draw a standard ECG and explain the different segments in it.



15. Protein molecules of larger size can pass through the lymph vessel? Give reason.



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16. We have seen that capillary walls are not permeable to plasma proteins. Suggest where the protein comes from



17. The disease Kwashiorkor is caused by a diet which is very low in protein. The concentration of proteins in blood becomes much lower than usual. One of the symptoms of Kwashiorkor is edema. Give reasons.



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18. Why there are no blood capillaries in the cornea of the eye and cartilage? How are these regions supplied with the required nutrients?



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19. When blood volume drops down abruptly, what happens to the stroke volume? State whether it increases or decreases?



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Evaluation

1. What is the function of lymph?

- A. Transport of O_2 into brain
- B. Transport of CO_2 into lungs
- C. Bring interstitial fluid in blood
- D. Bring RBC and WBC in lymph node



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2. Which one of the following plasma proteins is involved in the coagulation of blood?

- A. Globulin
- B. Fibrinogen
- C. Albumin
- D. Serum amylase



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3. Which of the following WBCs are found in more numbers?

- A. Eosinophil
- B. Neutrophil
- C. Basophil
- D. Monocyte



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4. Which of the following is not involved in blood clotting?

B. Calcium C. Platelets D. Bilirubin **Answer: Watch Video Solution** 5. Lymph is colourless bebcause A. WBC are absent

A. Fibrin

- B. WBC are present
- C. Heamoglobin is absent
- D. RBC are absent



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6. Blood group is due to the presence or absence of

A. Antigens on the surface of WBC

- B. Antibodies on the surface of RBC
- C. Antigens of the surface of RBC
- D. Antibodies on the surface of WBC



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7. A person having bothe antigen A and antigen B on the surface of RNCs belongs to blood group

- A. A
- B. B
- C. AB
- D. O



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8. Erythro blastosis foetalis is due to the distruction of

- A. Foetal RBCs
- B. Foetus suffers from atherosclerosis
- C. Foetal WBCs
- D. Foetus suffers from mianmata



- 9. Dub sound of heart is caused by
 - A. Closure of atrio-ventricular valves

- B. Opening of semi-lunar valves
- C. Closure of semi-lunar values
- D. Opening of atrio-ventricular valves.



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10. Why is the velocity of blood flow the lowest in the capillaries



11. 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?

A.
$$A^-$$

B. AB

$$\mathsf{C.}\,O^+$$

 $D.O^-$



- **12.** Which of these functions could or could not be carried out by a red blood cell?
 - A. Protein synthesis
 - B. Cell division
 - C. Lipid synthesis
 - D. Active transport



- **13.** At the venous end of the capillary bed, the osmotic pressure is
 - A. Greater than the hydrostatic pressure
 - B. Result in net outflow of fluids
 - C. Results in net absorption of fluids
 - D. No change occurs.



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14. A patient's chart reveals that he has a cardiac output of 7500mL per minute and a stroke volume of 50 mL. What is his pulse rate? (in beats / min)

A. 50

B. 100

C. 150

D. 400

Answer:



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15. At any given time there is more blood in the venous system than that of the arterial system. Which of the following features of the veins allows this?

A. relative lack of smooth muscles

- B. presence of valves
- C. proximity of the veins to lymphatic's
- D. thin endothelial lining



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16. Distinguish between arteries and veins.



17. Distinguish between open and closed circulation.



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18. Distinguish between mitral valve and semi lunar valev.



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19. Right ventricular wall is thinner than the left ventricular wall. Why?



20. What might be the effect on a person whose diet has less iron content?



21. Describe the mechanism by which the human heart beat is initiated and controlled.



22. What is lymph? Write its function.



23. What are the heart sounds? When and how are these sounds produced?



24. Select the correct biological term. Lymphocytes, red cells, leucocytes, plasma,

erythrocytes, white cells, haemoglobin, phagocyte, platelets, blood clot.

Disc shaped cells which are concave on both sides



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25. Select the correct biological term. Cardiac muscle, atria, tricuspid valve, systole, auricles, arteries, diastole, ventricles, bicuspid valve, pulmonary artery, cardiac cycle, semi lunar valve, veins, pulmonary vein, capillaries, vena cava, aorta. The main artery of the blood.



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26. Name and label the given diagram to show A,B,C,D,E,F and G.



