

BODY FLUIDS AND CIRCULATION

PYQ

AIPMT 2006

1. Examination of blood of a person suspected of having anemia, shows large, immature, nucleated erythrocytes without haemoglobin. Supplementing his diet with which of the following is likely to alleviate his symptoms?
- (1) Thiamine
 - (2) Folic acid and cobalamine
 - (3) Riboflavin
 - (4) Iron compounds

AIPMT 2007

2. Which one of the following mammalian cells is not capable of metabolising glucose to carbon-dioxide aerobically ?
- (1) Red blood cells
 - (2) White blood cells
 - (3) Unstriated muscle cells
 - (4) Liver cells
3. A drop of each of the following, is placed separately on four slides. Which of them will not coagulate?
- (1) Whole blood from pulmonary vein
 - (2) Blood plasma
 - (3) Blood serum
 - (4) Sample from the thoracic duct of lymphatic system

AIPMT 2008

4. Which type of white blood cells are concerned with the release of histamine and the natural anticoagulant heparin ?
- (1) Eosinophils
 - (2) Monocytes
 - (3) Neutrophils
 - (4) Basophils
5. In humans, blood passes from the post caval to the diastolic right atrium of heart due to :-
- (1) stimulation of the sino auricular node
 - (2) pressure difference between the post caval and atrium
 - (3) pushing open of the venous valves
 - (4) suction pull

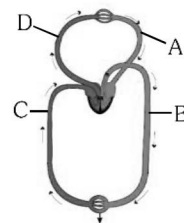
6. The most active phagocytic white blood cells are:-
- (1) Eosinophils and lymphocytes
 - (2) Neutrophils and monocytes
 - (3) Neutrophils and eosinophils
 - (4) Lymphocytes and macrophages

AIPMT 2009

7. The most popularly known blood grouping is the ABO grouping. It is named ABO and not ABC, because "O" in it refers to having:-
- (1) No antigens A and B on RBCs
 - (2) Other antigens besides A and B on RBCs
 - (3) Over dominance of this type on the genes for A and B types
 - (4) One antibody only - either anti-A or anti-B on the RBCs
8. The letter T in T-lymphocyte refers to :-
- (1) Thymus
 - (2) Thyroid
 - (3) Thalamus
 - (4) Tonsil
9. Compared to blood our lymph has :-
- (1) More RBCs and less WBCs
 - (2) No plasma
 - (3) Plasma without proteins
 - (4) More WBCs and no RBCs

NEET-UG 2013

10. Figure shows schematic plan of blood circulation in humans with labels A to D, Identify the label and give its function/s.



- (1) D-Dorsal aorta-takes blood from heart to body parts, $PO_2 = 95$ mm Hg
- (2) A-Pulmonary vein-takes impure blood from body parts, $PO_2 = 60$ mm Hg
- (3) B-Pulmonary artery-takes blood from heart to lungs, $PO_2 = 90$ mm Hg
- (4) C-Vena Cava-takes blood from body parts to the right auricle, $PCO_2 = 45$ mm Hg

AIPMT 2014

11. How do parasympathetic neural signals affect the working of the heart ?
 (1) Reduce both heart rate and cardiac output.
 (2) Heart rate is increased without affecting the cardiac output.
 (3) Both heart rate and cardiac output increase.
 (4) Heart rate decreases but cardiac output increases.

AIPMT 2015

12. Blood pressure in the mammalian aorta is maximum during :
 (1) Diastole of the right ventricle
 (2) Systole of the left ventricle
 (3) Diastole of the right atrium
 (4) Systole of the left atrium

NEET-I 2016

13. Blood pressure in the pulmonary artery is :-
 (1) same as that in the aorta.
 (2) more than that in the carotid.
 (3) more than that in the pulmonary vein.
 (4) less than that in the venae cavae.

NEET-II 2016

14. Name the blood cells, whose reduction in number can cause clotting disorder, leading to excessive loss of blood from the body.
 (1) Neutrophils (2) Thrombocytes
 (3) Erythrocytes (4) Leucocytes
15. Serum differs from blood in :-
 (1) Lacking clotting factors
 (2) Lacking antibodies
 (3) Lacking globulins
 (4) Lacking albumins

NEET(UG) 2017

16. Adult human RBCs are enucleated. Which of the following statement(s) is/are **most appropriate** explanation for this feature ?
 (a) They do not need to reproduce
 (b) They are somatic cells
 (c) They do not metabolize
 (d) All their internal space is available for oxygen transport
 (1) only (a) (2) (a), (c) and (d)
 (3) (b) and (c) (4) only (d)

17. The hepatic portal vein drains blood to liver from :
 (1) Stomach (2) Kidneys
 (3) Intestine (4) Heart
18. Frog's heart when taken out of the body continues to beat for sometime. Select the best option from the following statements.
 (a) Frog is a poikilotherm.
 (b) Frog does not have any coronary circulation.
 (c) Heart is "myogenic" in nature.
 (d) Heart is autoexcitable

Options:

- (1) Only(d) (2) (a) and (b)
 (3) (c)and(d) (4) Only(c)

NEET(UG) 2018

19. Match the items given in Column I with those in Column II and select the **correct** option given below:

Column I	Column II
a. Tricuspid valve	i. Between left atrium and left ventricle
b. Bicuspid valve	ii. Between right ventricle and pulmonary artery
c. Semilunar valve	iii. Between right atrium and right ventricle
a	b
(1) iii	i ii
(2) i	iii ii
(3) i	ii iii
(4) ii	i iii

20. Match the items given in Column I with those in Column II and select the **correct** option given below:-

Column I	Column II
a. Fibrinogen	i. Osmotic balance
b. Globulin	ii. Blood clotting
c. Albumin	iii. Defence mechanism
a	b
(1) iii	ii i
(2) i	ii iii
(3) i	iii ii
(4) ii	iii i

NEET(UG) 2019

21. Match the **Column - I** with **Column -II**

Column - I	Column - II
(a) P-wave	(i) Depolarisation of ventricles
(b) QRS complex	(ii) Repolarisation of ventricles
(c) T-wave	(iii) Coronary ischemia
(d) Reduction in the size of T-wave	(iv) Depolarisation of atria
	(v) Repolarisation of atria

Select the **correct** option -

(a)	(b)	(c)	(d)
(1) (iv)	(i)	(ii)	(iii)
(2) (iv)	(i)	(ii)	(v)
(3) (ii)	(i)	(v)	(iii)
(4) (ii)	(iii)	(v)	(iv)

NEET(UG) 2019 (ODISHA)

22. All the components of the nodal tissue are auto excitable. Why does the SA node act as the normal pacemaker?
- (1) SA node has the lowest rate of depolarisation.
 - (2) SA node is the only component to generate the threshold potential.
 - (3) Only SA node can convey the action potential to the other components.
 - (4) SA node has the highest rate of depolarisation.
23. A specialised nodal tissue embedded in the lower corner of the right atrium, close to Atrio-ventricular septum, delays the spreading of impulses to heart apex for about 0.1 sec. The delay allows.
- (1) blood to enter aorta.
 - (2) the ventricles to empty completely.
 - (3) blood to enter pulmonary arteries.
 - (4) the atria to empty completely.

NEET(UG) 2020

24. Match the following columns and select the correct option.
- | Column - I | Column - II |
|-------------------|---------------------|
| (a) Eosinophils | (i) Immune response |
| (b) Basophils | (ii) Phagocytosis |

- | | |
|-----------------|--|
| (c) Neutrophils | (iii) Release histaminase, destructive enzymes |
| (d) Lymphocytes | (iv) Release granules containing histamine |

(a)	(b)	(c)	(d)
(1) (ii)	(i)	(iii)	(iv)
(2) (iii)	(iv)	(ii)	(i)
(3) (iv)	(i)	(ii)	(iii)
(4) (i)	(ii)	(iv)	(iii)

NEET(UG) 2020 (COVID-19)

25. Which of the following conditions cause erythroblastosis foetalis ?
- (1) Mother Rh^{+ve} and foetus Rh^{-ve}
 - (2) Mother Rh^{-ve} and foetus Rh^{+ve}
 - (3) Both mother and foetus Rh^{-ve}
 - (4) Both mother and foetus Rh^{+ve}

NEET(UG) 2021

26. Persons with 'AB' blood group are called as "Universal recipients". This is due to :
- (1) Absence of antigens A and B on the surface of RBCs
 - (2) Absence of antigens A and B in plasma
 - (3) Presence of antibodies, anti-A and anti-B, on RBCs
 - (4) Absence of antibodies, anti-A and anti-B, in plasma
27. Which enzyme is responsible for the conversion of inactive fibrinogens to fibrins?
- (1) Thrombin
 - (2) Renin
 - (3) Epinephrine
 - (4) Thrombokinase

NEET(UG) 2022

28. Which one of the following statements is **correct** ?
- (1) The tricuspid and the bicuspid valves open due to the pressure exerted by the simultaneous contraction of the atria
 - (2) Blood moves freely from atrium to the ventricle during joint diastole.
 - (3) Increased ventricular pressure causes closing of the semilunar valves.
 - (4) The atrio-ventricular node (AVN) generates an action potential to stimulate atrial contraction

29. Given below are two statements:

Statement I: The coagulum is formed of network of threads called thrombins.

Statement II: Spleen is the graveyard of erythrocytes.

In the light of the above statements, choose the **most appropriate** answer from the options given below:

- (1) Both **Statement I** and **Statement II** are incorrect
- (2) **Statement I** is correct but **Statement II** is incorrect
- (3) **Statement I** is incorrect but **Statement II** is correct
- (4) Both **Statement I** and **Statement II** are correct

RE-NEET(UG) 2022

30. A unique vascular connection between the digestive tract and liver is called _____ .

- (1) Hepato-pancreatic system
- (2) Hepatic portal system
- (3) Renal portal system
- (4) Hepato-cystic system

31. Arrange the following formed elements in the decreasing order of their abundance in blood in humans :

- (a) Platelets
- (b) Neutrophils
- (c) Erythrocytes
- (d) Eosinophils
- (e) Monocytes

Choose the **most appropriate answer** from the options given below :

- (1) (c), (a), (b), (e), (d)
- (2) (c), (b), (a), (e), (d)
- (3) (d), (e), (b), (a), (c)
- (4) (a), (c), (b), (d), (e)

EXERCISE-II (Previous Year Questions)

ANSWER KEY

Question	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Answer	2	1	3	4	2	2	1	1	4	4	1	2	3	2	1
Question	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Answer	4	3	3	1	4	1	4	4	2	2	4	1	2	3	2
Question	31														
Answer	1														