

1. Following are the stages of pathway for conduction of an action potential through the heart: **(2024)**

- A. AV bundle
- B. Purkinje fibres
- C. AV node
- D. Bundle branches
- E. SA node

Choose the correct sequence of pathway from the options given below :

- (a) A-E-C-B-D
- (b) B-D-E-C-A
- (c) E-A-D-B-C
- (d) E-C-A-D-B

2. Match List I with List II: **(2024)**

List I		List II	
A.	P wave	I.	Heart muscles are electrically silent.
B.	QRS complex	II.	Depolarisation of ventricles.
C.	T wave	III.	Depolarisation of atria.
D.	T-P gap	IV.	Repolarisation of ventricles.

Choose the correct answer from the options given below:

- (a) A-III, B-II, C-IV, D-I
- (b) A-II, B-III, C-I, D-IV
- (c) A-IV, B-II, C-I, D-III
- (d) A-I, B-III, C-IV, D-II

3. As per ABO blood grouping system, the blood group of father is B⁺, mother is A⁺ and child is O⁺ Their respective genotype can be **(2024)**

- A. I^Bi/I^Ai/ii
- B. I^BI^B/I^AI^A/ii
- C. I^AI^B/II^A/I^Bi
- D. I^Ai/I^Bi/I^Ai
- E. ii/I^B/I^AI^B

Choose the most appropriate answer from the options given below;

- (a) B only
- (b) C & B only
- (c) D & E only
- (d) A only

4. Match List -I with List -II **(2023)**

List -I (ECG)		List-II (Electrical activity of heart)	
(A)	P-wave	(I)	Depolarisation of ventricles
(B)	QRS Complex	(II)	End of systole
(C)	T-wave	(III)	Depolarisation of atria
(D)	End of T-wave	(IV)	Repolarisation of ventricles

Choose the correct answer from the options given below:-

- (a) A-(IV), B-(I), C-(III), D-(II)
- (b) A-(I), B-(IV), C-(III), D-(II)
- (c) A-(IV), B-(III), C-(I), D-(II)
- (d) A-(III), B-(I), C-(IV), D-(II)

5. Match List -I with List -II. **(2023)**

List -I		List-II	
(A)	Eosinophils	(I)	6-8%
(B)	Lymphocytes	(II)	2-3%
(C)	Neutrophils	(III)	20-25%
(D)	Monocytes	(IV)	60-65%

Choose the correct answer from the options given below:

- (a) A-IV, B-I, C-II, D-III
- (b) A-IV, B-I, C-III, D-II
- (c) A-II, B-III, C-IV, D-I
- (d) A-II, B-III, C-I, D-IV

6. Match List -I with List -II. (2023)

List -I		List-II	
(A)	P-wave	(I)	Beginning of systole
(B)	Q-wave	(II)	Repoarisation of ventricles
(C)	QRS complex	(III)	Depolarisation of atria
(D)	T-wave	(IV)	Depolarisation of ventricles

Choose the correct answer from the options given below :

- (a) A-IV, B-III, C-II, D-I
- (b) A-II, B-IV, C-I, D-III
- (c) A-I, B-II, C-III, D-IV
- (d) A-III, B-I, C-IV, D-II

7. Which of the following statements are correct ? (2023)

- A. Basophils are most abundant cells of the total WBCs
- B. Basophils secrete histamine, serotonin and heparin
- C. Basophils are involved in inflammatory response
- D. Basophils have kidney shaped nucleus
- E. Basophils are agranulocytes

Choose the correct answer from the options given below:

- (a) C and E only
- (b) B and C only
- (c) A and B only
- (d) D and E only

8. A unique vascular connection between the digestive tract and liver is called _____. (2022)

- (a) Hepato-cystic system
- (b) Hepato-pancreatic system
- (c) Hepatic portal system
- (d) Renal portal system

9. Given below are two statements :

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

Statements II : Spleen is the graveyard of erythrocytes. In the light of the above statements, choose the most appropriate answer from the options given below : (2022)

- (a) Both statements I and statements II are correct.
- (b) Both statement I and statement II are incorrect.
- (c) Statement I is correct but statement II is incorrect
- (d) Statement I is incorrect but statement II is Correct.

10. Which of the following statements is correct? (2022)

- (a) The atrio-ventricles node (AVN) generates an action potential to stimulate atrial contraction
- (b) The tricuspid and the bicuspid valves open due to pressure exerted by the simultaneous contraction of the atria.
- (c) Blood moves freely from atrium to the ventricles during joint diastole.
- (d) Increased ventricular pressure causes closing of the semilunar valves.

11. Which enzyme is responsible for the conversion of inactive fibrinogens to fibrins? (2021)

- (a) Renin
- (b) Epinephrine
- (c) Thrombokinase
- (d) Thrombin

12. Persons with 'AB' blood group are called as "Universal recipients". This is due to (2021)

- (a) Absence of antigens A and B in plasma
- (b) Presence of antibodies, anti-A and anti- B, on RBCs
- (c) Absence of antibodies, anti-A and anti-B, in plasma
- (d) Absence of antigens A and B on the surface of RBCs

13. QRS complex in a standard ECG represents (2020)

- (a) Depolarisation of auricles
- (b) Depolarisation of ventricles
- (c) Repolarisation of ventricles
- (d) Repolarisation of auricles

14. Match the following columns and select the correct option (2020)

Column - I		Column - II	
1.	Eosinophils	(i)	Immune response
2.	Basophils	(ii)	Phagocytosis
3.	Neutrophils	(iii)	Release histaminase, destructive enzymes
4.	Lymphocytes	(iv)	Release granules containing histamine

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- (a) (iv) (i) (ii) (iii)
 (b) (i) (ii) (iv) (iii)
 (c) (ii) (i) (iii) (iv)
 (d) (iii) (iv) (ii) (i)

15. Which of the following is associated with decrease in cardiac output?

(2020 Covid Re-NEET)

- (a) Parasympathetic neural signals
 (b) Pneumotaxic centre
 (c) Adrenal medullary hormones
 (d) Sympathetic nerves

16. Which of the following conditions cause erythroblastosis foetalis?

(2020 Covid Re-NEET)

- (a) Mother Rh^{-ve} and foetus Rh^{+ve}
 (b) Both mother and foetus Rh^{-ve}
 (c) Both mother and foetus Rh^{+ve}
 (d) Mother Rh^{+ve} and foetus Rh

17. What would be the heart rate of a person if the cardiac output is 5 L, blood volume in the ventricles at the end of diastole is 100 mL and at the end of ventricular systole is 50 mL?

(2019)

- (a) 50 beats per minute
 (b) 75 beats per minute
 (c) 100 beats per minute
 (d) 125 beats per minute

18. Match the Column-I with Column-II (2019)

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

- (a) A-iv B-i C-ii D-iii
 (b) A-iv B-i C-ii D-v
 (c) A-ii B-i C-v D-iii
 (d) A-ii B-iii C-v D-iv

19. Match the items given in Column I with those in Column II and select the correct option given below (2018)

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) A-iii B-i C-ii
 (b) A-i B-iii C-ii
 (c) A-i B-ii C-iii
 (d) A-ii B-i C-iii

- 20.** Match the items given in Column I with those in Column II and select the correct option given below **(2018)**

Column I		Column II	
A.	Fibrinogen	i.	Osmotic balance
B.	Globulin	ii.	Blood clotting
C.	Albumin	iii.	Defense mechanism

- (a) A-iii B-ii C-i
(b) A-i B-ii C-iii
(c) A-i B-iii C-ii
(d) A-ii B-iii C-i
- 21.** Adult human RBCs are enucleate. Which of the following statement(s) is/are most appropriate explanation for this feature? **(2017)**
- A. They do not need to reproduce
B. They are somatic cells
C. They metabolise
D. All their internal space is available for oxygen transport
- (a) Only D
(b) Only A
(c) A, C and D
(d) B and C
- 22.** Hepatic portal vein drains blood to liver from **(2017)**
- (a) Heart
(b) Stomach
(c) Kidneys
(d) Intestine
- 23.** All the components of the conducting system can generate an action potential for the contraction of heart muscle, but the sino-atrial node acts as the pacemaker because **(2017)**
- (a) Sino-atrial node has a lower inherent rate of depolarisation
(b) All the other components in heart cannot conduct the action potential
(c) Only the sino-atrial node is auto-excitable and auto-rhythmic
(d) Sino-atrial node has a higher inherent rate of depolarization

- 24.** In the heart, as the action potential reaches the AV node from the SA node, there is a delay of the action potential. This delay is important because **(2017)**
- (a) It allows right atria to receive the blood from vena cava
(b) It allows atria to rest
(c) It allows a stronger right atrial contraction
(d) It allows ventricles to receive all the blood from the atria
- 25.** Serum differs from blood in **(2016 - II)**
- (a) Lacking clotting factors
(b) Lacking antibodies
(c) Lacking globulins
(d) Lacking albumins
- 26.** Blood pressure in the pulmonary artery is **(2016 - I)**
- (a) Same as that in the aorta
(b) More than that in the carotid
(c) More than that in the pulmonary vein
(d) Less than that in the vena cava
- 27.** Blood pressure in the mammalian aorta is maximum during **(2015)**
- (a) Systole of the left ventricle
(b) Diastole of the right atrium
(c) Systole of the left atrium
(d) Diastole of the right ventricle
- 28.** Which one of the following is correct? **(2015)**
- (a) Lymph = Plasma + RBC + WBC
(b) Blood = Plasma + RBC + WBC + Platelets
(c) Plasma = Blood - Lymphocytes
(d) Serum = Blood + Fibrinogen
- 29.** Erythropoiesis starts in **(2015)**
- (a) Spleen
(b) Red bone marrow
(c) Kidney
(d) Liver
- 30.** Which one of the following animals has two separate circulatory pathways? **(2015 Re)**
- (a) Lizard
(b) Whale
(c) Shark
(d) Frog

31. If you suspect major deficiency of antibodies in a person to which of the following would you look for confirmatory evidences? **(2015 Re)**

- (a) Serum albumins
- (b) Haemocytes
- (c) Serum globulins
- (d) Fibrinogen in plasma

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

(2015 Re)

- (a) Ventricular walls vibrate due to pushing in of blood from atria
- (b) Semilunar valves close down after the blood flows into vessels from ventricles
- (c) AV node receives signal from SA Node
- (d) AV valves open up

33. The diagram given here is the standard ECG of a normal person. The P-wave represents the **(2013)**



- (a) End of systole
- (b) Contraction of both the atria
- (c) Initiation of the ventricular contraction
- (d) Beginning of the systole

34. The most abundant intracellular cation is **(2013)**

- (a) K^+
- (b) Na^+
- (c) Ca^{++}
- (d) H^+

NEET