Yakeen NEET 2.0 2026

Practice Sheet

Zoology By Samapti Sinha Ma'am

Body Fluids and Circulation

Q1 Duration of a cardiac cycle is;
(A) 0.6 second. (B) 0.7 second.
(C) 0.8 second. (D) 0.9 second.

Q2 Cardiac activity could be moderated by the autonomous neural system. Choose the **correct** option.
(A) The parasympathetic system stimulates heart rate and stroke volume.
(B) The sympathetic system stimulates heart rate and stroke volume.
(C) The parasympathetic system decreases the heart rate but increase stroke volume.
(D) The sympathetic system decreases the heart rate but increase stroke volume.

Q3 Which among the following is **correct** during each cardiac cycle?
(A) The volume of blood received by the aorta and pulmonary artery is different.
(B) The volume of blood received by each atrium is different.
(C) The volume of blood pumped out by the right and left ventricle is the same.
(D) The volume of blood pumped out by the right and left ventricles is different.

Q4 Arteries are best defined as the vessels which;
(A) always supplies oxygenated blood to the different organs.
(B) carry oxygenated blood away from the heart to different organs.
(C) break up into capillaries which reunite to form a vein.
(D) carry blood from one visceral organ to another visceral organ.

Q5 Grouping of ABO blood is based on the:
(A) presence or absence of surface antigens on RBCs.
(B) surface lipids present on the cell membrane.
(C) nature of all constituents.
(D) nature of RBC and WBC.

Q6 Which of the following statements are **correct**?
I. Closure of atrioventricular valves produces 'dub' sound.
II. A cardiac cycle consists of a systole and a diastole of both atria and ventricles.
III. The average number of the times, a normal heart beats in one minute is 72.
IV. Change in the blood volume in all the chambers of the heart occurs during the cardiac cycle.
The option with **correct** statements is;
(A) I, II and III
(B) II, III and IV
(C) I, II and IV
(D) I, III and IV

Q7 Medulla oblongata regulates the cardiac activity via;
(A) CNS. (B) ANS.
(C) PNS. (D) CNS & PNS.

Q8 Given below are two statements: one is labelled as Assertion A and the other is labelled as Reason R:
Assertion (A): Bicuspid and tricuspid valves get closed during ventricular systole.
Reason (R): These valves in heart allow blood to flow in one direction and prevent backward flow.
In the light of the above statements, choose the **correct** answer from the options given below:
(A) Both **Assertion (A)** and **Reason (R)** are the true, and **Reason (R)** is a correct explanation of **Assertion (A)**.
(B) Both **Assertion (A)** and **Reason (R)** are the true, but **Reason (R)** is not a correct explanation of **Assertion (A)**.
(C) **Assertion (A)** is true, and **Reason (R)** is false.
(D) **Assertion (A)** is false, and **Reason (R)** is true.

Q9 "X" is a fibrous tissue of the membranous septum of the heart just above the septal cusp of the tricuspid valve. It separates the atrium and the ventricle of the same side. Identify "X".
(A) Sino atrial node
(B) Atrioventricular septum
(C) Atrioventricular node
(D) Interventricular septum

Q10 I. Plasma contains small amounts of minerals like Na^+, Ca^{2+}, Mg^+, HCO_3^-, Cl^-, etc.
II. Glucose, amino acids, lipids etc. are present in the plasma as they are not always in transit in the body.
III. Factors for clotting of blood are present in plasma in an active form.
IV. Plasma without the clotting factors is called serum.
Find the **correct** option regarding the above statements.
(A) Only I is incorrect
(B) Only II is correct
(C) I & IV are correct
(D) All are incorrect

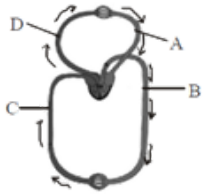
Q11 Coronary artery disease (CAD) is also referred as;
(A) atherosclerosis.
(B) angina.
(C) heart failure.
(D) heart attack.

Q12 Explain the reason. There is a delay in processing the electrical signal from the AV node to the AV bundle. To;
(A) allow the atria to complete their contraction prior to ventricular contraction.
(B) ensure the right and left atria contract at the same time.
(C) ensure the right and left ventricles contract at the same time.
(D) prevent an ectopic pacemaker.

Q13 Which one of the following has the thickest wall?
(A) Right auricle
(B) Left auricle
(C) Right ventricles
(D) Left ventricle

Q14 P-wave of ECG represents;
(A) onset of ventricular contraction.
(B) end of atrial contraction.
(C) beginning of atrial contraction.
(D) ventricular contraction.

Q15 The given figure shows a schematic plan of blood circulation in humans with labels **A to D**. Identify the label along with their functions and select the **correct** option.



(A) **C**-Vena cava takes blood from body parts to right auricle
(B) **D**-Dorsal aorta takes blood from heart to body parts
(C) **A**-Pulmonary vein takes impure blood from body parts
(D) **B**-Pulmonary artery takes blood from heart to lungs

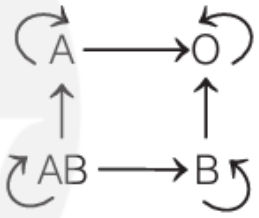
Q16 In the ventricular diastole, the ___A___ valve closes. This causes the second heart sound ___B___.
Choose the **correct** option for A and B.
(A) A—semilunar, B—dub
(B) A—mitral; B—dub
(C) A—bicuspid; B—dub
(D) A—tricuspid; B—dub

Q17 During ventricular systole;
(A) oxygenated blood is pumped into the pulmonary artery and deoxygenated blood is pumped into the artery.
(B) oxygenated blood is pumped into the aorta and deoxygenated blood is pumped into the pulmonary vein.
(C) oxygenated blood is pumped into the pulmonary vein and deoxygenated blood is pumped into the pulmonary artery.
(D) oxygenated blood is pumped into the aorta and deoxygenated blood is pumped into the pulmonary artery.

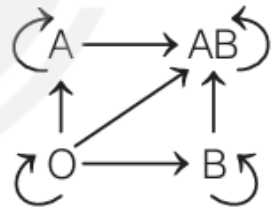
Q18 Origin of heart beat and its conduction is represented by;
(A) AV node → Bundle of His → SA node → Purkinje fibres.
(B) SA node → Purkinje fibres → AV node → Bundle of His.
(C) Purkinje fibres → AV node → SA node → Bundle of His.
(D) SA node → AV node → Bundle of His → Purkinje fibres.

Q19 Bicuspid and tricuspid valves open when;
(A) blood from the pulmonary artery and vena cava flows into the left and right ventricles, respectively.
(B) blood from the pulmonary vein and vena cava flows into left and right ventricles, respectively.
(C) blood from the pulmonary vein and vena cava flows into left and right atrium, respectively.
(D) oxygen from the pulmonary vein and vena cava flows into left and right atrium, respectively.

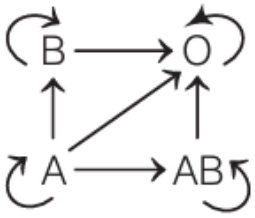
Q20 Which of the given options is **correct** about blood groups and donor compatibility?
(A)



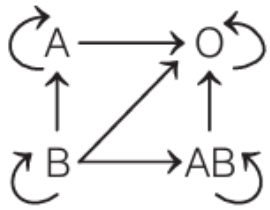
(B)



(C)



(D)



Q21 What happens when the pacemaker is non-functional?

(A) Only the auricles will contract rhythmically

(B) The cardiac muscles do not contract in a coordinated manner rhythmically

(C) Only ventricles will contract rhythmically

(D) Auricles and ventricles will contract simultaneously

Q22 Which one of following is a **incorrect** match?

	Disorders	Symptoms
1.	Heart failure	Insufficient blood supply to the body
2.	Angina pectoris	Acute chest pain
3.	Cardiac arrest	Lumen narrows
4.	Heart attack	Insufficient blood supply to cardiac muscles

(A) 1 (B) 2

(C) 3 (D) 4

Q23 How do parasympathetic neural signals affect the working of the heart?

(A) Reduce both heart rate and cardiac output.

(B) Heart rate is increased without affecting the cardiac output.

(C) Both heart rate and cardiac output increase.

(D) Heart rate decreases but cardiac output increases.

Q24 Which of the following statements is/are **incorrect**?

(A) A person of O blood group has anti A and anti B antibodies in his blood plasma.

(B) A person of B blood group can not donate blood to a person of A blood group.

(C) Blood group is designated on the basis of the presence of antibodies in the blood plasma.

(D) A person of AB blood group is universal recipient.

Q25 Match List-I with List-II:

	List-I		List-II
I.	RBCs	A.	10-13 days
II.	WBCs	B.	1,50,000-3,50,000 mm^{-3} of blood
III.	Platelets	C.	120 days
IV.	Fibrinogen	D.	Protein

Choose the **correct** answer from the options given below:

(A) I-A, II-C, III-B, IV-D

(B) I-C, II-A, III-B, IV-D

(C) I-B, II-D, III-A, IV-C

(D) I-A, II-B, III-D, IV-C

Q26 Which of the following is a **correct** statement ?

(A) The volume of blood in pulmonary circulation is more than the volume of blood in systemic circulation at any instant.

(B) The blood pressure in pulmonary circulation is less than that of the systemic circulation.

(C) Double circulation is characteristic of all vertebrates.

(D) A double aortic arch is seen in birds and mammals.

Q27

Which of the following **correctly** explains a phase/event in cardiac cycle in a standard electrocardiogram?
(A) QRS complex indicates atrial contraction.
(B) QRS complex indicates ventricular contraction.
(C) Time between S and T represents atrial systole.
(D) P-wave indicates beginning of ventricular contraction.

Q28 Hepatic portal system carries;
(A) oxygenated blood from liver to intestine.
(B) deoxygenated blood from liver to intestine.
(C) oxygenated blood from intestine to liver.
(D) deoxygenated blood from intestine to liver.

Q29 Arrange the following events in the chronological order of the cardiac cycle and choose the **correct** option.
I. SA node generates action potential.
II. Atrial systole
III. Joint diastole
IV. Ventricular diastole
V. Ventricular systole
VI. Atrial diastole
(A) III → II → I → IV → V → VI
(B) I → III → II → IV → V → VI
(C) III → I → II → V → VI → IV
(D) II → IV → I → III → V → VI

Q30 Which one of the following statements is **true** regarding angina?
(A) Heart stops beating.
(B) More common in children.
(C) Does not affect the blood flow.
(D) Not enough oxygen is reaching to heart muscles.

Q31 Chordae tendinae are found in;
(A) ventricles of brain.
(B) ventricles of heart.
(C) atria of heart.
(D) connection between bone.

Q32 Cardiac output is blood;
(A) received by heart per minute.
(B) pumped out by ventricles per second.
(C) pumped out by each ventricle per minute.
(D) pumped by left ventricle per hour.

Q33 Which of the following statements is **incorrect**?
(A) The pulmonary trunk with left and right arteries are part of pulmonary circulation.
(B) The aorta is a part of systemic circulation.
(C) The aorta recieves blood from left ventricle of the heart.
(D) The oxygenated blood pumped into the pulmonary artery is passed on to the lungs.

Q34 When the right ventricle contracts, the blood is pumped into the;
(A) superior vena cava.
(B) dorsal aorta.
(C) pulmonary artery.
(D) pulmonary veins.

Q35 How many of the following valves are in contact with oxygenated blood only?

Bicuspid valve, Pulmonary semilunar valve, Aortic semilunar valve, Tricuspid valve

(A) Three (B) Four
(C) Two (D) One

Q36 What is the **correct** order of events occurring in blood clotting?
I. Conversion of inactive fibrinogen to fibrin by the enzyme thrombin.
II. Formation of blood clot.
III. Thromboplastin formation.
IV. Conversion of inactive prothrombin to

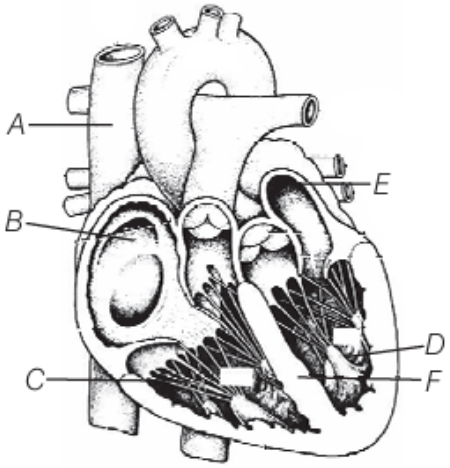
thrombin in the presence of thrombokinase.
Choose the **correct** option.
(A) III → II → I → IV
(B) III → IV → II → I
(C) III → IV → I → II
(D) IV → I → III → II

Q37 Blood pressure in the mammalian aorta is maximum during;
(A) systole of the left ventricle.
(B) diastole of the right atrium.
(C) systole of the left atrium.
(D) diastole of the right ventricle.

Q38 Doctors use a stethoscope to hear the sounds produced during each cardiac cycle. The second sound is heard when;
(A) AV valves open up.
(B) ventricular walls vibrate due to gushing in of blood from atria.
(C) semilunar valves close down after the blood flows into vessels from ventricles.
(D) AV node receives the signal from SA node.

Q39 Read the following statements.
I. Systemic aorta originates from left ventricle and distributes deoxygenated blood to lungs.
II. Pulmonary arch originates from right ventricle and carries oxygenated blood to various body parts except lungs.
III. A special coronary system of blood vessels helps in the circulation of blood to and from the cardiac musculature.
Which of the following statement(s) **correctly** identifies the function of blood vessels associated with human heart?
(A) Only III
(B) I and II
(C) I, II and III
(D) I and III

Q40 Identify A-F in the given diagram of human heart and choose the **correct** option.



(A) A–Vena cava, B–Right atrium, C–Left atrium, D–Right ventricle, E–Left ventricle, F–Interventricular septum
(B) A–Vena cava, B–Right atrium, C–Right ventricle, D–Left ventricle, E–Left atrium, F–Interventricular septum
(C) A–Vena cava, B–Right atrium, C–Right ventricle, D–Left atrium, E–Left ventricle, F–Interventricular septum
(D) A–Vena cava, B–Left atrium, C–Right ventricle, D–Left ventricle, E–Right atrium, F–Interventricular septum

Q41 Identify A → H correctly.

(A) A - RBC, D - Basophil, E - Monocyte
(B) B - Platelets, D - Eosinophil, F - Monocyte
(C) A - RBC, C - Eosinophil, H - T-Lymphocyte
(D) C - Eosinophil, E - Neutrophil, G - T-lymphocyte

Q42 The circulation which provides nutrients, O_2 and essential substances to the tissues and takes CO_2 and other harmful substances away for elimination is;
(A) systemic circulation.

(B) pulmonary circulation.
(C) double circulation.
(D) None of these

Q43 Pacemaker is situated _____of the heart.
(A) in the wall of right atrium
(B) on the inter-auricular septum
(C) on inter-ventricular septum
(D) in the wall of left atrium

Q44 To obtain a standard ECG, the patient is connected to the machine with three electrical leads. These three electrical lead are connected as one to each;
(A) biceps and third one at the ankle.
(B) triceps and third one at the ankle.
(C) thigh and third one at the ankle.
(D) wrist and third one at the ankle.

Q45 The cardiac pacemaker in a patient fails to function normally. The doctors find that an artificial pacemaker is to be grafted in him. It is likely that it will be grafted at the site of;
(A) wall of left atrium.
(B) purkinje system.
(C) sinoatrial node.
(D) atrioventricular node.

Answer Key

Q1	(C)
Q2	(B)
Q3	(C)
Q4	(B)
Q5	(A)
Q6	(B)
Q7	(B)
Q8	(A)
Q9	(B)
Q10	(C)
Q11	(A)
Q12	(A)
Q13	(D)
Q14	(C)
Q15	(A)
Q16	(A)
Q17	(D)
Q18	(D)
Q19	(C)
Q20	(B)
Q21	(B)
Q22	(C)
Q23	(A)
Q24	(C)
Q25	(B)
Q26	(B)
Q27	(B)
Q28	(D)
Q29	(C)
Q30	(D)
Q31	(B)
Q32	(C)
Q33	(D)
Q34	(C)
Q35	(C)
Q36	(C)
Q37	(A)
Q38	(C)
Q39	(A)
Q40	(B)
Q41	(D)
Q42	(A)
Q43	(A)
Q44	(D)
Q45	(C)