Yakeen NEET 2.0 2026

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Body Fluids and Circulation

DPP: 5

Q1 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 contract simultaneously.

Q2 What is the function of the SAN (Sinoatrial Node) in the heart?
(A) It opens the tricuspid and bicuspid valves.
(B) It closes the semilunar valves.
(C) It stimulates the atria to undergo a simultaneous contraction.
(D) It increases the flow of blood into the ventricles by about 30%.

Q3 Which statement about the sinoatrial node (SAN) is NOT true?
(A) The SAN generates the maximum number of action potentials in the heart.
(B) The SAN is responsible for initiating and maintaining the rhythmic contractile activity of the heart.
(C) The SAN is called the pacemaker of the heart.
(D) The SAN controls the blood flow in the heart.

Q4 Duration of a cardiac cycle is;
(A) 0.6 second. (B) 0.7 second.
(C) 0.8 second. (D) 0.9 second.

Q5 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

Q6 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.

Q7 **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.
(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.

Q8 Identify the **correct** sequence of the cardiac cycle.
(I) Blood through the pulmonary vein and vena cava enters in left and right atria respectively.
(II) AV node generates action potential for ventricles.
(III) SA node brings about atrial systole.
(IV) Ventricular systole pushes blood away from the heart.
(A) I → II → III → IV
(B) I → III→ II → IV
(C) III → I → II → IV
(D) III → IV → II → I

Q9 Systole causes;
(A) entry of blood into lungs.
(B) entry of blood into heart.
(C) exit of blood from brain.
(D) exit of blood from ventricle.

Q10 Which event is responsible for initiating the closure of the atrioventricular valves during the cardiac cycle?
(A) Contraction of the ventricles during systole
(B) Increased pressure in the atria
(C) Relaxation of the atria during diastole
(D) Opening of the semilunar valves

Q11 What happens during the atrial systole?
(A) The tricuspid and bicuspid valves open
(B) The semilunar valves close
(C) The atria undergo a simultaneous contraction
(D) The flow of blood into the ventricles decreases by about 30%.

Q12 Which of the following statements about the cardiac cycle is NOT true?
(A) All four chambers of the heart are in a relaxed state during joint diastole.
(B) The tricuspid and bicuspid valves are open during the filling of the ventricles.
(C) The semilunar valves are closed during atrial systole.
(D) The SAN generates an action potential that stimulates the ventricles to contract.

Q13 During ventricular diastole in the cardiac cycle, which valves are pushed open by the pressure exerted by the blood in the atria?
(A) Tricuspid and bicuspid valves
(B) Semilunar valves
(C) Atrioventricular valves
(D) Pulmonary and aortic valves

Q14 Which event leads to the closure of the tricuspid and bicuspid valves during ventricular systole in the cardiac cycle?
(A) Increased pressure in the ventricles
(B) Relaxation of the atria during diastole
(C) Backflow of blood into the atria
(D) Opening of the semilunar valves

Q15 Which of the following statements accurately describe the events during ventricular systole and diastole?
(A) Ventricular systole increases the ventricular pressure, causing the closure of tricuspid and bicuspid valves.
(B) Ventricular diastole allows blood to flow into the ventricles and leads to the opening of semilunar valves.
(C) Ventricular systole causes the closure of semilunar valves and the opening of tricuspid and bicuspid valves.
(D) Ventricular diastole increases the ventricular pressure, forcing open the semilunar valves.

Q16 The second heart sound (dub) is associated with the closure of;
(A) tricuspid and bicuspid valves.
(B) bicuspid valves only.
(C) semilunar valves.

(D) tricuspid valves only.

Q17 Match **List-I** with **List-II** to find out the **correct** option.

	List-I		**List-II**
I.	Cardiac output	A.	70 ml
II.	Stroke volume	B.	5 litres
III.	First heart sound	C.	dub
IV.	Second heart sound	D.	lub

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

Answer Key

Q1	(B)
Q2	(C)
Q3	(D)
Q4	(C)
Q5	(C)
Q6	(C)
Q7	(A)
Q8	(B)
Q9	(D)
Q10	(A)
Q11	(C)
Q12	(D)
Q13	(A)
Q14	(A)
Q15	(A)
Q16	(C)
Q17	(B)