

Answer 7

(a)

- (i) Ventricular systole
- (ii) Ventricles are contracting in this phase. In the diagram given, tricuspid valves and bicuspid valves are closed, while the semi-lunar valves are open.
- (iii) 1 – Pulmonary artery
2 – Aorta
3 – Bicuspid valve
4 – Semilunar valve (aortic semilunar valve)
- (iv) Oxygenated blood flows through '2', i.e. aorta.
- (v) '5' is pulmonary semilunar valve. It prevents the backflow of blood into the right ventricle at the time of ventricular diastole.
- (vi) Pericardium covers the heart.

(b)

- (i) Greenhouse effect:
Gases such as CO₂, methane, nitric oxide and nitrous oxide in the atmosphere act as greenhouse gases. Their increased concentration in the atmosphere prevents the escape of heat which warms the air. This is called greenhouse effect.
- (ii) Turgor pressure:
In a turgid plant cell, the pressure of the cell contents on the cell wall is called the turgor pressure.
- (iii) Selective reabsorption:
The glomerular filtrate entering the renal tubule contains many useful substances. Hence, as the filtrate passes down the tubule, water and other substances required by the body are reabsorbed. This reabsorption occurs only to the extent that the normal concentration of the blood is undisturbed. This entire process is called selective reabsorption.
- (iv) Natality:
The number of live births per 1000 people of population per year is called natality.
- (v) Pulse:
The pulse is the alternate expansion and elastic recoil of the wall of the artery during ventricular systole.