Experiment No. 7 – Examination of Cardiovascular System

1. **What is Apex Beat?**

Ans: It is the lowest and outermost point of definite cardiac pulsation. It is usually visible and palpable, and is located 8-10 cm from midsternal line, in the 5th intercoastal space.

2. **How do you locate the Apex Beat?**

Ans: Position of Apex Beat

a. The apex beat is located 8–10 cm from the midsternal line, in the left 5th intercostal space. To locate the 5th space, the sternal angle (angle of Lewis)—the junction between manubrium sterni and body of sternum—is first located.
b. The second costal cartilage articulates with sternum at this level; the 2nd intercostal space is below the 2nd rib. The 5th space can now easily be counted downwards and located.
c. If the apex beat is not palpable, the patient is then turned over to the left side, or sits up and bends forward. However, despite all efforts the apex beat may still not be palpable for the reasons already mentioned.

3. **In which area did you hear the first heart sound best?**

Ans: First heart sound can be best heard in the mitral area which corresponds to apex beat.

4. **In which area do you hear the second heart sound best?**

Ams: Second heart sound is best heard over aortic and pulmonary areas.

- **Aortic Area –** Right to the sternum in the 2nd intercostal space.
- **Pulmonary Area –** Left of the sternum in the 2nd intercostal space.

5. **Describe the situation of Apex Beat in your subject.**

Ans:

→ The Apex Beat in my subject was visible and palpable in the left 5th intercostal space, just medial to the mid-clavicular line.

→ The character of beat was localized and non-forceful, indicating normal ventricular impulse.

6. **What is murmur? Which type of defects in which valve is responsible for the production of murmur?**

Ans: Murmurs, which are longer than heart sounds and may be systolic or diastolic, have a 'blowing' or 'swishing' quality.

They are caused by turbulent flow and eddy currents within the heart or great vessels. Valvular defects (change in size, deformities) are the usual causes of murmurs.