

PART I — Multiple Choice

Circle the best answer.

1. The primary purpose of an ECG is to record:
 - A. Blood pressure
 - B. Electrical activity of the heart
 - C. Heart sounds
 - D. Oxygen saturation

2. A standard ECG tracing is recorded on:
 - A. Blue grid paper
 - B. White lined paper
 - C. Graph paper with small and large boxes
 - D. Plain paper

3. How many leads are used in a **standard 12-lead ECG**?
 - A. 10
 - B. 12
 - C. 8
 - D. 6

4. Which electrode color is placed on the **right arm**?
 - A. Red
 - B. Black
 - C. White
 - D. Green

5. Which electrode is considered the **ground lead**?
 - A. Right arm
 - B. Left arm
 - C. Right leg
 - D. Left leg

6. What does the **P wave** represent?
 - A. Ventricular contraction
 - B. Atrial depolarization
 - C. Ventricular repolarization
 - D. Atrial relaxation

7. The **QRS complex** represents:
 - A. Atrial depolarization
 - B. Atrial repolarization
 - C. Ventricular depolarization
 - D. Ventricular repolarization

8. The **T wave** represents:
 - A. Ventricular depolarization
 - B. Atrial depolarization
 - C. Ventricular repolarization
 - D. Electrical silence

9. One common cause of artifact on an ECG tracing is:
 - A. Correct electrode placement
 - B. Patient movement
 - C. Proper skin prep
 - D. Good lead contact

10. Before obtaining an ECG, the patient should:
 - A. Stand upright
 - B. Be lying still and relaxed
 - C. Be exercising
 - D. Hold their breath

PART II — Fill in the Blank

11. ECG stands for _____.
12. The small boxes on ECG paper represent _____ seconds.
13. The large boxes on ECG paper represent _____ seconds.
14. The normal heart rate range for an adult is _____ to _____ bpm.
15. Proper skin preparation helps reduce ECG _____.

PART III — True or False

Circle one.

16. True / False
ECG electrodes detect electrical impulses produced by the heart.
17. True / False
A 12-lead ECG uses 12 electrodes placed on the chest only.
18. True / False
Muscle tremors can interfere with ECG tracings.
19. True / False
The ECG machine prints heart rhythms in real time.
20. True / False
Loose electrodes can cause artifact on an ECG tracing.

PART IV — Short Answer

21. Why is correct electrode placement important when obtaining an ECG?
22. List **two steps** to properly prepare a patient for an ECG:
23. Name **two common sources of ECG artifact**:
24. What should you do if an ECG tracing looks unclear or noisy?

PART V — Basic Rhythm Recognition

25. Which ECG component comes **first** in a normal cardiac cycle?
26. Which part of the ECG tracing is usually the **tallest**?