

Student: _____

1. What is the number one cause of death in the United States?
 - A. Cancer
 - B. Diabetes
 - C. Cardiovascular disease
 - D. Accidents
2. The abbreviation CAD stands for:
 - A. Cold appendage disorder
 - B. Coronary application disease
 - C. Cerebral artery disease
 - D. Coronary artery disease
3. What does the electrocardiogram or ECG study?
 - A. The electrical activity of the heart
 - B. The muscle contractions of the heart
 - C. High blood pressure readings
 - D. All of the above
4. The first electrocardiograph was invented by:
 - A. Sir Thomas Lewis
 - B. Wilhelm Einthoven
 - C. Thomas Edison
 - D. Dr. James Herrick
5. The abbreviation for myocardial infarction, also known as a heart attack, is:
 - A. IM
 - B. HA
 - C. MI
 - D. MCI
6. An electrocardiograph (ECG) technician should be able to:
 - A. Determine if an ECG tracing is accurate
 - B. Recognize abnormalities in an ECG tracing
 - C. Prepare the ECG tracing for the physician
 - D. All of the above
7. An ECG monitor technician's main responsibility is to:
 - A. View the ECG tracings and alert the health care professional of an abnormal heart rhythm
 - B. Assist the physicians with invasive cardiovascular diagnostic tests
 - C. Perform ultrasounds of the heart and blood vessels
 - D. Repair hospital telemetry monitors
8. A "stat" ECG is done:
 - A. Yearly, as part of a routine physical
 - B. Immediately
 - C. In the early morning
 - D. Before surgery
9. Continuous ECG monitoring done in a hospital setting is known as:
 - A. Holter monitoring
 - B. Telemetry monitoring
 - C. Exercise electrocardiography
 - D. Echocardiogram

10. Which of these ECGs is done in a doctor's office?
 - A. Treadmill stress testing
 - B. Holter monitor
 - C. 12-lead ECG
 - D. All of the above
11. What symptoms would indicate the use of a telemedicine monitor?
 - A. Palpitations
 - B. Chest pain
 - C. Dizziness
 - D. All of the above
12. What device enables lay rescuers to help a patient with sudden cardiac arrest?
 - A. Automatic external defibrillator (AED)
 - B. Telemedicine monitor
 - C. Pacemaker
 - D. 12-lead ECG
13. An ECG technician needs to have a basic understanding of which of the following items?
 - A. Medical law and ethics
 - B. Patient safety and infection control
 - C. The procedure and the ECG machine
 - D. All of the above
14. What is the best way to become familiar with the ECG machine you are using?
 - A. Ask a co-worker
 - B. Refer to instructions on or with the ECG machine
 - C. Go to the website of the manufacturer
 - D. Practice ECG tracings on yourself
15. Standard precautions include which of the following?
 - A. Proper hand washing
 - B. Use of gloves
 - C. Wearing gown, mask, and eye protection
 - D. All of the above
16. If the patient asks questions after you have explained the ECG procedure, you should:
 - A. Repeat the instructions and clarify any questions the patient has
 - B. Ask the physician to answer the patient's questions
 - C. Perform the ECG as ordered
 - D. Have a co-worker explain the procedure to the patient
17. Ethics are:
 - A. Rules of conduct that are enforced by an authority
 - B. Cultural values
 - C. Standards of behavior and concepts of right and wrong
 - D. All of the above
18. HIPAA stands for:
 - A. Health Information Privacy and Availability Act
 - B. Health Insurance Professionals Accounting Act
 - C. Health Insurance Portability and Accountability Act
 - D. Health Information Portability and Alternative Act
19. Which of the following defines practicing ethics as a health care professional?
 - A. Patient respect and dignity
 - B. Practicing professionalism and cooperation
 - C. Maintaining patient confidentiality
 - D. All of the above

20. Which of the following is NOT implied consent?
- A. Patient agreeing to be treated by the physician
 - B. Patient signing a consent form for a treadmill stress test
 - C. Patient agreeing to have an ECG
 - D. Patient coming to the doctor's office for care
21. Your patient states "I do not want that electricity going through me!" as you are getting ready to perform an ECG on him. The best response is:
- A. Explain that the ECG machine is not harmful and does not produce electricity
 - B. Ask the patient to please lie down and be still
 - C. Show the patient you will not plug the ECG machine into the wall outlet
 - D. Go get the doctor and have him explain the procedure to the patient
22. Who should sign the consent form if a patient cannot read or write?
- A. The patient's physician
 - B. Your co-worker
 - C. A family member of the patient
 - D. All of the above
23. You have a patient that can only sign an "X" on the consent form. You need to:
- A. Leave consent form blank
 - B. Explain the procedure to the patient with a witness present, have the patient place an X on the form, and have the witness sign the form also
 - C. Explain the reason the patient only signed an "X" on the consent form
 - D. Have the physician sign the consent form
24. Which instrument was developed by a Dutch physiologist prior to the invention of the electrocardiograph?
- A. Pacemaker
 - B. Carburetor
 - C. Galvanometer
 - D. Telegraph machine
25. The term for an abnormal heartbeat is:
- A. Angioplasty
 - B. Arrhythmia
 - C. Angina
 - D. Artifact
26. Angioplasty is:
- A. An abnormal ECG tracing
 - B. The surgical repair of blood vessels
 - C. An ultrasound of the heart
 - D. Narrowing of the arteries surrounding the heart
27. An artificial _____ is a device that initiates the heartbeat.
- A. Defibrillator
 - B. Galvanometer
 - C. Pacemaker
 - D. Oscilloscope
28. What does the term "Code Blue" mean when used in a hospital setting?
- A. A biohazard spill has occurred in the hospital
 - B. Severe weather is imminent
 - C. A patient is experiencing pain around the heart
 - D. A patient is unresponsive and needs immediate assistance

29. The _____ monitor allows the patient to participate in normal daily activities while the electrical activity of the heart is being recorded.
- A. Holter
 - B. Biphasic
 - C. Multichannel
 - D. Telemetry
30. Which of the following is NOT a reason for performing an ECG?
- A. To determine if there is a blockage in a coronary artery
 - B. To check for heart rhythm abnormalities
 - C. To document irregular heartbeats
 - D. As part of a yearly, routine physical exam
31. Slander is an illegal and unethical act and is defined as:
- A. Writing defamatory words
 - B. Violating patient confidentiality
 - C. Making derogatory remarks about someone
 - D. All of the above
32. _____ means writing defamatory words. It is illegal and unethical and could result in the loss of your job.
- A. HIPAA
 - B. Libel
 - C. Consent
 - D. Liability
33. Which device recognizes an abnormal rhythm and can deliver an electric shock to the heart if necessary?
- A. ECG
 - B. CAD
 - C. MSET
 - D. AED
34. PPE is used to reduce the risk of transmission of infection. PPE stands for:
- A. Personal protection equipment
 - B. Possible percutaneous exposure
 - C. Pulmonary protection equipment
 - D. Patient protective electrocardiograph
35. The problem-solving process includes which of the following steps?
- A. Identify possible solutions
 - B. Identify and define the problem
 - C. Implement the selected solution
 - D. All of the above
36. Who is recognized as having performed the first ECG on a human?
- A. Wilhelm Einthoven
 - B. Dr. Augusta Waller
 - C. Sir Thomas Lewis
 - D. Dr. James Herrick
37. When caring for patients and recording an ECG, you may encounter many situations that require you to:
- A. Think critically about the situation
 - B. Always follow the same steps each time
 - C. Not worry about what the patient may tell you
 - D. All of the above

38. Which of the following are measures to ensure that patients' health information is protected?
- A. Standard precautions
 - B. Isolation procedures
 - C. HIPAA
 - D. Patient's bill of rights
39. A normal ECG tracing is a _____ line with upward and downward spikes or deflections that indicate electrical activity in the heart.
- A. Vertical
 - B. Curved
 - C. Round
 - D. Horizontal
40. Which of the following communication techniques help to ensure a successful ECG recording?
- A. Explain the ECG procedure using simple terms
 - B. Encourage the patient to ask questions
 - C. Maintain a friendly, confident manner
 - D. All of the above
41. An inaccurate ECG could result in the wrong treatment or medication for a patient.
True False
42. A physician does not need to be present during an exercise stress test.
True False
43. An ECG technician is required to follow safety and infection control guidelines when working at a health care facility.
True False
44. The use of an alcohol-base rub on hands without visible soilage is an accepted technique for preventing infection.
True False
45. Critical thinking is the process of thinking through the situation or problem and making a decision to solve it.
True False
46. Telemedicine monitoring is generally used to evaluate coronary artery disease.
True False
47. It is essential that you remain calm when recording a "stat" ECG.
True False
48. Transtelephonic monitors are connected to a telephone at a remote location, and the ECG tracing is transmitted and viewed in the physician's office.
True False
49. Cardiopulmonary resuscitation (CPR) is an emergency procedure that provides ventilations and chest compressions.
True False
50. A patient's chart or computer screen with patient data may be left out in the open if you are using the chart or performing an ECG on the patient.
True False
51. Dr. Augusta D. Waller is credited with having performed the first electrocardiogram on a human.
True False

1 Key

1. What is the number one cause of death in the United States?
(p. 2)
- A. Cancer
 - B. Diabetes
 - C. Cardiovascular disease**
 - D. Accidents

Cardiovascular disease is the number one cause of death in the United States since 1918.

*Blooms: Remember
Booth - Chapter 01 #1
Difficulty: Easy*

Learning Outcome: Explain what an ECG is and its importance in medicine.

2. The abbreviation CAD stands for:
(p. 2)
- A. Cold appendage disorder
 - B. Coronary application disease
 - C. Cerebral artery disease
 - D. Coronary artery disease**

CAD stands for coronary artery disease, which is narrowing of the blood vessels surrounding the heart. It causes a reduction of blood flow to the heart.

*Blooms: Remember
Booth - Chapter 01 #2
Difficulty: Easy*

Learning Outcome: Explain what an ECG is and its importance in medicine.

3. What does the electrocardiogram or ECG study?
(p. 2)
- A. The electrical activity of the heart**
 - B. The muscle contractions of the heart
 - C. High blood pressure readings
 - D. All of the above

The electrocardiograph produces an electrical tracing of the heart. This tracing is known as the ECG.

*Blooms: Remember
Booth - Chapter 01 #3
Difficulty: Easy*

Learning Outcome: Explain what an ECG is and its importance in medicine.

4. The first electrocardiograph was invented by:
(p. 4)
- A. Sir Thomas Lewis
 - B. Wilhelm Einthoven**
 - C. Thomas Edison
 - D. Dr. James Herrick

In 1903, Wilhelm Einthoven invented the first electrocardiograph.

*Blooms: Remember
Booth - Chapter 01 #4
Difficulty: Easy*

Learning Outcome: Discuss the history of obtaining and using the ECG.

5. The abbreviation for myocardial infarction, also known as a heart attack, is:
(p. 4)
- A. IM
 - B. HA
 - C. MI**
 - D. MCI

MI is the abbreviation for myocardial infarction.

*Blooms: Remember
Booth - Chapter 01 #5
Difficulty: Easy*

Learning Outcome: Discuss the history of obtaining and using the ECG.

6. An electrocardiograph (ECG) technician should be able to:
(p. 5)
- A. Determine if an ECG tracing is accurate
 - B. Recognize abnormalities in an ECG tracing
 - C. Prepare the ECG tracing for the physician
 - D. All of the above**

ECG technicians record the ECG and prepare the report for the physician. They should be able to determine that the tracing is accurate and recognize abnormalities.

*Blooms: Understand
Booth - Chapter 01 #6
Difficulty: Medium*

Learning Outcome: Describe career opportunities for an electrocardiographer.

7. An ECG monitor technician's main responsibility is to:
(p. 5)
- A. View the ECG tracings and alert the health care professional of an abnormal heart rhythm**
 - B. Assist the physicians with invasive cardiovascular diagnostic tests
 - C. Perform ultrasounds of the heart and blood vessels
 - D. Repair hospital telemetry monitors

The responsibility of the ECG monitor technician is to view the ECG tracings and, if an abnormal heart rhythm occurs, alert the health care professional who can treat the abnormality.

*Blooms: Understand
Booth - Chapter 01 #7
Difficulty: Medium*

Learning Outcome: Describe career opportunities for an electrocardiographer.

8. A "stat" ECG is done:
(p. 7)
- A. Yearly, as part of a routine physical
 - B. Immediately**
 - C. In the early morning
 - D. Before surgery

An emergency ECG may be referred to as "stat," meaning immediately.

*Blooms: Understand
Booth - Chapter 01 #8
Difficulty: Easy*

Learning Outcome: Compare the uses of the ECG in the hospital, in the doctors office or ambulatory clinic, or outside of a health care facility.

9. Continuous ECG monitoring done in a hospital setting is known as:
(p. 7)
- A. Holter monitoring
 - B. Telemetry monitoring**
 - C. Exercise electrocardiography
 - D. Echocardiogram

Another type of continuous monitoring done in the hospital is known as telemetry monitoring. Telemetry monitors are small boxes with electrodes and lead wires attached to the chest.

*Blooms: Remember
Booth - Chapter 01 #9
Difficulty: Easy*

Learning Outcome: Compare the uses of the ECG in the hospital, in the doctors office or ambulatory clinic, or outside of a health care facility.

10. Which of these ECGs is done in a doctor's office?
(p. 8)
- A. Treadmill stress testing
 - B. Holter monitor
 - C. 12-lead ECG
 - D. All of the above**

The 12-lead ECG is a routine diagnostic test performed in any doctor's office. Two other tests that may be performed in an office include treadmill stress testing and the Holter monitor.

*Blooms: Understand
Booth - Chapter 01 #10
Difficulty: Medium*

Learning Outcome: Compare the uses of the ECG in the hospital, in the doctors office or ambulatory clinic, or outside of a health care facility.

11. What symptoms would indicate the use of a telemedicine monitor?
(p. 12)
- A. Palpitations
 - B. Chest pain
 - C. Dizziness
 - D. All of the above**

It is useful to record the ECG tracings on a telemedicine monitor when the patient has symptoms. These symptoms include chest pain, shortness of breath, dizziness, or palpitations.

*Blooms: Understand
Booth - Chapter 01 #11
Difficulty: Medium*

Learning Outcome: Compare the uses of the ECG in the hospital, in the doctors office or ambulatory clinic, or outside of a health care facility.

12. What device enables lay rescuers to help a patient with sudden cardiac arrest?
(p. 10)
- A. Automatic external defibrillator (AED)**
 - B. Telemedicine monitor
 - C. Pacemaker
 - D. 12-lead ECG

AEDs are available in public and/or private places where large numbers of people gather. The AED has enabled lay rescuers help a patient with a sudden cardiac arrest.

*Blooms: Understand
Booth - Chapter 01 #12
Difficulty: Medium*

Learning Outcome: Compare the uses of the ECG in the hospital, in the doctors office or ambulatory clinic, or outside of a health care facility.

13. An ECG technician needs to have a basic understanding of which of the following items?
(p. 14)
- A. Medical law and ethics
 - B. Patient safety and infection control
 - C. The procedure and the ECG machine
 - D. All of the above**

In order to perform an ECG, you should become familiar with the procedure and the ECG machine, be able to lift and move the patient, transport and operate the ECG machine. You must understand basic principles of safety and infection control, patient education and communication, and law and ethics.

*Blooms: Understand
Booth - Chapter 01 #13
Difficulty: Medium*

Learning Outcome: Identify the skills and knowledge needed to perform an ECG.

14. What is the best way to become familiar with the ECG machine you are using?
(p. 14)
- A. Ask a co-worker
 - B. Refer to instructions on or with the ECG machine**
 - C. Go to the website of the manufacturer
 - D. Practice ECG tracings on yourself

Many ECG machines have reference cards or instructions posted in a convenient place on or with the equipment. Refer to these printed materials when performing an ECG.

*Blooms: Understand
Booth - Chapter 01 #14
Difficulty: Easy*

Learning Outcome: Identify the skills and knowledge needed to perform an ECG.

15. Standard precautions include which of the following?
(p. 15)
- A. Proper hand washing
 - B. Use of gloves
 - C. Wearing gown, mask, and eye protection
 - D. All of the above**

Standard precautions include hand hygiene and wearing gloves. It may include the use of a gown, mask, and eye protection.

*Blooms: Understand
Booth - Chapter 01 #15
Difficulty: Medium*

Learning Outcome: Identify the skills and knowledge needed to perform an ECG.

16. If the patient asks questions after you have explained the ECG procedure, you should:
(p. 18)
- A. Repeat the instructions and clarify any questions the patient has**
 - B. Ask the physician to answer the patient's questions
 - C. Perform the ECG as ordered
 - D. Have a co-worker explain the procedure to the patient

Helping the patient understand the procedure and follow instructions is essential to performing the ECG procedure. Use simple terms and speak slowly and distinctly. Encourage the patient to ask questions and repeat the instructions back to you.

*Blooms: Understand
Booth - Chapter 01 #16
Difficulty: Hard*

Learning Outcome: Identify the skills and knowledge needed to perform an ECG.

17. Ethics are:
(p. 18)
- A. Rules of conduct that are enforced by an authority
 - B. Cultural values
 - C.** Standards of behavior and concepts of right and wrong
 - D. All of the above

Ethics are concerned with standards of behavior and concepts of right and wrong. They are based on moral values that are formed through the influence of the family, culture, and society.

*Blooms: Understand
Booth - Chapter 01 #17
Difficulty: Medium*

Learning Outcome: Identify the skills and knowledge needed to perform an ECG.

18. HIPAA stands for:
(p. 18)
- A. Health Information Privacy and Availability Act
 - B. Health Insurance Professionals Accounting Act
 - C.** Health Insurance Portability and Accountability Act
 - D. Health Information Portability and Alternative Act

In 1996, the Health Insurance Portability and Accountability Act (HIPAA) was established in response to information being transferred electronically for medical transactions. This act ensures that electronic medical data is limited and secured.

*Blooms: Remember
Booth - Chapter 01 #18
Difficulty: Medium*

Learning Outcome: Identify the skills and knowledge needed to perform an ECG.

19. Which of the following defines practicing ethics as a health care professional?
(p. 19)
- A. Patient respect and dignity
 - B. Practicing professionalism and cooperation
 - C. Maintaining patient confidentiality
 - D.** All of the above

Confidentiality is a basic right of every patient. Respect the privacy of patients at all times. Practicing ethics includes professionalism, respect, and cooperation with co-workers and supervisors.

*Blooms: Understand
Booth - Chapter 01 #19
Difficulty: Medium*

Learning Outcome: Identify the skills and knowledge needed to perform an ECG.

20. Which of the following is NOT implied consent?
(p. 20)
- A. Patient agreeing to be treated by the physician
 - B.** Patient signing a consent form for a treadmill stress test
 - C. Patient agreeing to have an ECG
 - D. Patient coming to the doctor's office for care

Informed consent requires the patient to sign a consent form that they understand the risks involved with certain diagnostic procedures.

*Blooms: Understand
Booth - Chapter 01 #20
Difficulty: Medium*

Learning Outcome: Identify the skills and knowledge needed to perform an ECG.

21. Your patient states "I do not want that electricity going through me!" as you are getting ready to perform an ECG on him. The best response is:
(p. 21)
- A.** Explain that the ECG machine is not harmful and does not produce electricity
 - B. Ask the patient to please lie down and be still
 - C. Show the patient you will not plug the ECG machine into the wall outlet
 - D. Go get the doctor and have him explain the procedure to the patient

Explain the procedure to the patient in a calm manner. Explain that the machine does not generate electricity and the procedure is quick and painless.

*Blooms: Understand
Booth - Chapter 01 #21
Difficulty: Medium*

Learning Outcome: Define troubleshooting, and explain its importance to you as a health care professional.

22. Who should sign the consent form if a patient cannot read or write?
(p. 21)
- A. The patient's physician
 - B. Your co-worker
 - C.** A family member of the patient
 - D. All of the above

If a patient cannot read or write, you will need to explain the procedure to a family member and have that person sign the consent form along with the patient.

*Blooms: Remember
Booth - Chapter 01 #22
Difficulty: Medium*

Learning Outcome: Define troubleshooting, and explain its importance to you as a health care professional.

23. You have a patient that can only sign an "X" on the consent form. You need to:
(p. 21)
- A. Leave consent form blank
 - B.** Explain the procedure to the patient with a witness present, have the patient place an X on the form, and have the witness sign the form also
 - C. Explain the reason the patient only signed an "X" on the consent form
 - D. Have the physician sign the consent form

Explain the procedure to the patient with a witness present, have the patient place an X on the form, and have the witness sign the form also.

*Blooms: Understand
Booth - Chapter 01 #23
Difficulty: Medium*

Learning Outcome: Define troubleshooting, and explain its importance to you as a health care professional.

24. Which instrument was developed by a Dutch physiologist prior to the invention of the electrocardiograph?
(p. 4)
- A. Pacemaker
 - B. Carburetor
 - C.** Galvanometer
 - D. Telegraph machine

Wilhelm Einthoven developed the first galvanometer, an instrument used to detect electrocardiograph waves.

*Blooms: Remember
Booth - Chapter 01 #24
Difficulty: Easy*

Learning Outcome: Discuss the history of obtaining and using the ECG.

25. The term for an abnormal heartbeat is:
(p. 4)
A. Angioplasty
B. Arrhythmia
C. Angina
D. Artifact

Arrhythmia means abnormal heartbeat.

*Blooms: Remember
Booth - Chapter 01 #25
Difficulty: Easy*

Learning Outcome: Discuss the history of obtaining and using the ECG.

26. Angioplasty is:
(p. 5)
A. An abnormal ECG tracing
B. The surgical repair of blood vessels
C. An ultrasound of the heart
D. Narrowing of the arteries surrounding the heart

Angioplasty is the surgical repair of blood vessels.

*Blooms: Remember
Booth - Chapter 01 #26
Difficulty: Easy*

Learning Outcome: Describe career opportunities for an electrocardiographer.

27. An artificial _____ is a device that initiates the heartbeat.
(p. 5)
A. Defibrillator
B. Galvanometer
C. Pacemaker
D. Oscilloscope

An artificial pacemaker is a device that initiates the heartbeat.

*Blooms: Remember
Booth - Chapter 01 #27
Difficulty: Easy*

Learning Outcome: Describe career opportunities for an electrocardiographer.

28. What does the term "Code Blue" mean when used in a hospital setting?
(p. 7)
A. A biohazard spill has occurred in the hospital
B. Severe weather is imminent
C. A patient is experiencing pain around the heart
D. A patient is unresponsive and needs immediate assistance

The term "Code Blue" is used by many institutions to indicate that a patient is having cardiac, respiratory, or neurological symptoms and is unresponsive and needs immediate help.

*Blooms: Remember
Booth - Chapter 01 #28
Difficulty: Medium*

Learning Outcome: Compare the uses of the ECG in the hospital, in the doctors office or ambulatory clinic, or outside of a health care facility.

29. The _____ monitor allows the patient to participate in normal daily activities while the electrical activity of the heart is being recorded.
(p. 10)
- A.** Holter
 - B. Biphasic
 - C. Multichannel
 - D. Telemetry

A Holter monitor is an instrument that records the electrical activity of the heart during a patient's routine daily activities.

*Blooms: Remember
Booth - Chapter 01 #29
Difficulty: Medium*

Learning Outcome: Compare the uses of the ECG in the hospital, in the doctors office or ambulatory clinic, or outside of a health care facility.

30. Which of the following is NOT a reason for performing an ECG?
(p. 9)
- A.** To determine if there is a blockage in a coronary artery
 - B. To check for heart rhythm abnormalities
 - C. To document irregular heartbeats
 - D. As part of a yearly, routine physical exam

An angiogram is an invasive procedure that determines whether a coronary artery or blood vessel has a blockage.

*Blooms: Understand
Booth - Chapter 01 #30
Difficulty: Medium*

Learning Outcome: Compare the uses of the ECG in the hospital, in the doctors office or ambulatory clinic, or outside of a health care facility.

31. Slander is an illegal and unethical act and is defined as:
(p. 20)
- A. Writing defamatory words
 - B. Violating patient confidentiality
 - C.** Making derogatory remarks about someone
 - D. All of the above

Making derogatory remarks about someone that jeopardizes his or her reputation or means of livelihood is called slander.

*Blooms: Understand
Booth - Chapter 01 #31
Difficulty: Medium*

Learning Outcome: Identify the skills and knowledge needed to perform an ECG.

32. _____ means writing defamatory words. It is illegal and unethical and could result in the loss of your job.
(p. 20)
- A. HIPAA
 - B.** Libel
 - C. Consent
 - D. Liability

Writing defamatory words is known as libel.

*Blooms: Understand
Booth - Chapter 01 #32
Difficulty: Medium*

Learning Outcome: Identify the skills and knowledge needed to perform an ECG.

33. Which device recognizes an abnormal rhythm and can deliver an electric shock to the heart if necessary?
(p. 12)
- A. ECG
 - B. CAD
 - C. MSET
 - D. AED**

An automatic external defibrillator (AED) is a device that analyzes the heart rhythm and will indicate if an electrical shock needs to be given to correct the irregular rhythm.

*Blooms: Remember
Booth - Chapter 01 #33
Difficulty: Easy*

Learning Outcome: Compare the uses of the ECG in the hospital, in the doctors office or ambulatory clinic, or outside of a health care facility.

34. PPE is used to reduce the risk of transmission of infection. PPE stands for:
(p. 16)
- A. Personal protection equipment**
 - B. Possible percutaneous exposure
 - C. Pulmonary protection equipment
 - D. Patient protective electrocardiograph

Personal protection equipment (PPE) includes items such as gloves, mask, gown, and eye protection.

*Blooms: Understand
Booth - Chapter 01 #34
Difficulty: Easy*

Learning Outcome: Identify the skills and knowledge needed to perform an ECG.

35. The problem-solving process includes which of the following steps?
(p. 20)
- A. Identify possible solutions
 - B. Identify and define the problem
 - C. Implement the selected solution
 - D. All of the above**

The problem-solving process involves identifying and defining the problem, identifying possible solutions, selecting the best solution, implementing the selected solution, and evaluating the results.

*Blooms: Understand
Booth - Chapter 01 #35
Difficulty: Medium*

Learning Outcome: Define troubleshooting, and explain its importance to you as a health care professional.

36. Who is recognized as having performed the first ECG on a human?
(p. 4)
- A. Wilhelm Einthoven
 - B. Dr. Augusta Waller**
 - C. Sir Thomas Lewis
 - D. Dr. James Herrick

Dr. Augusta Waller was the first to show that electrical currents are produced by the beating of the heart. He is credited with having performed the first electrocardiogram on a human.

*Blooms: Remember
Booth - Chapter 01 #36
Difficulty: Easy*

Learning Outcome: Explain what an ECG is and its importance in medicine.

37. When caring for patients and recording an ECG, you may encounter many situations that require you to:
- A.** Think critically about the situation
 - B. Always follow the same steps each time
 - C. Not worry about what the patient may tell you
 - D. All of the above

Being able to troubleshoot situations that may arise during the ECG procedure is essential. Troubleshooting requires critical thinking.

*Blooms: Understand
Booth - Chapter 01 #37*

Difficulty: Medium

Learning Outcome: Define troubleshooting, and explain its importance to you as a health care professional.

38. Which of the following are measures to ensure that patients' health information is protected?
- A. Standard precautions
 - B. Isolation procedures
 - C.** HIPAA
 - D. Patient's bill of rights

In 1996, the Health Insurance Portability and Accountability Act (HIPAA) was established to ensure that patient information was secure and private.

*Blooms: Remember
Booth - Chapter 01 #38*

Difficulty: Medium

Learning Outcome: Identify the skills and knowledge needed to perform an ECG

39. A normal ECG tracing is a _____ line with upward and downward spikes or deflections that indicate electrical activity in the heart.
- A. Vertical
 - B. Curved
 - C. Round
 - D.** Horizontal

A normal ECG tracing is a horizontal line with upward and downward spikes or deflections that indicate electrical activity within the heart.

*Blooms: Remember
Booth - Chapter 01 #39*

Difficulty: Medium

Learning Outcome: Compare the uses of the ECG in the hospital, in the doctors office or ambulatory clinic, or outside of a health care facility.

40. Which of the following communication techniques help to ensure a successful ECG recording?
- A. Explain the ECG procedure using simple terms
 - B. Encourage the patient to ask questions
 - C. Maintain a friendly, confident manner
 - D.** All of the above

You must develop a positive relationship and atmosphere to reduce apprehension and anxiety during an ECG. Helping the patient understand the procedure and follow instructions is essential to performing the ECG.

*Blooms: Understand
Booth - Chapter 01 #40*

Difficulty: Medium

Learning Outcome: Identify the skills and knowledge needed to perform an ECG.

41. An inaccurate ECG could result in the wrong treatment or medication for a patient.
(p. 3) **TRUE**

The ECG must be accurate because it is used to make decisions about a patient's care.

*Blooms: Understand
Booth - Chapter 01 #41
Difficulty: Medium*

Learning Outcome: Explain what an ECG is and its importance in medicine.

42. A physician does not need to be present during an exercise stress test.
(p. 9) **FALSE**

A physician should always be present during this procedure.

*Blooms: Remember
Booth - Chapter 01 #42
Difficulty: Easy*

Learning Outcome: Compare the uses of the ECG in the hospital, in the doctors office or ambulatory clinic, or outside of a health care facility.

43. An ECG technician is required to follow safety and infection control guidelines when working at a health care facility.
(p. 14) **TRUE**

Preventing the spread of infection is an essential part of performing an ECG. When performing health care procedures, you must always maintain the safety of yourself and the patient.

*Blooms: Understand
Booth - Chapter 01 #43
Difficulty: Easy*

Learning Outcome: Identify the skills and knowledge needed to perform an ECG.

44. The use of an alcohol-base rub on hands without visible soilage is an accepted technique for preventing infection.
(p. 15) **TRUE**

Proper hand hygiene is the single most important thing you can do to prevent the spread of infection.

*Blooms: Understand
Booth - Chapter 01 #44
Difficulty: Medium*

Learning Outcome: Identify the skills and knowledge needed to perform an ECG.

45. Critical thinking is the process of thinking through the situation or problem and making a decision to solve it.
(p. 20) **TRUE**

Troubleshooting requires critical thinking. Being able to troubleshoot situations that may occur during an ECG is essential.

*Blooms: Remember
Booth - Chapter 01 #45
Difficulty: Medium*

Learning Outcome: Define troubleshooting, and explain its importance to you as a health care professional.

46. Telemedicine monitoring is generally used to evaluate coronary artery disease.
(p. 14) **FALSE**

Telemedicine monitoring is generally used to evaluate artificial pacemaker functioning.

*Blooms: Understand
Booth - Chapter 01 #46
Difficulty: Medium*

Learning Outcome: Compare the uses of the ECG in the hospital, in the doctors office or ambulatory clinic, or outside of a health care facility.

47. It is essential that you remain calm when recording a "stat" ECG.
(p. 7) **TRUE**

Remaining calm is necessary to avoid stress to the patient and to reduce confusion during the emergency.

*Blooms: Understand
Booth - Chapter 01 #47
Difficulty: Easy*

Learning Outcome: Compare the uses of the ECG in the hospital, in the doctors office or ambulatory clinic, or outside of a health care facility.

48. Transtelephonic monitors are connected to a telephone at a remote location, and the ECG tracing is transmitted and viewed in the physician's office.
(p. 13) **FALSE**

Transtelephonic monitors are connected to a telephone at a remote location, and the ECG tracing is transmitted and viewed at a central location for interpretation.

*Blooms: Understand
Booth - Chapter 01 #48
Difficulty: Medium*

Learning Outcome: Compare the uses of the ECG in the hospital, in the doctors office or ambulatory clinic, or outside of a health care facility.

49. Cardiopulmonary resuscitation (CPR) is an emergency procedure that provides ventilations and chest compressions.
(p. 5) **TRUE**

CPR is an emergency procedure that provides ventilations and chest compressions for a person who shows no signs of breathing or having a heartbeat.

*Blooms: Remember
Booth - Chapter 01 #49
Difficulty: Easy*

Learning Outcome: Describe career opportunities for an electrocardiographer.

50. A patient's chart or computer screen with patient data may be left out in the open if you are using the chart or performing an ECG on the patient.
(p. 19) **FALSE**

Patient information should not be in an area where other patients or visitors may be able to view it. This is a breach of confidentiality and a HIPAA violation.

*Blooms: Understand
Booth - Chapter 01 #50
Difficulty: Medium*

Learning Outcome: Identify the skills and knowledge needed to perform an ECG.

51. Dr. Augusta D. Waller is credited with having performed the first electrocardiogram on a human.
(p. 4) **TRUE**

Dr. Augusta D. Waller performed the first electrocardiogram on a human.

*Blooms: Remember
Booth - Chapter 01 #51
Difficulty: Medium*

Learning Outcome: Discuss the history of obtaining and using the ECG.

1 Summary

<u>Category</u>	<u># of Questions</u>
Blooms: Remember	22
Blooms: Understand	29
Booth - Chapter 01	51
Difficulty: Easy	19
Difficulty: Hard	1
Difficulty: Medium	31
Learning Outcome: Compare the uses of the ECG in the hospital, in the doctors office or ambulatory clinic, or outside of a health care facility.	14
Learning Outcome: Define troubleshooting, and explain its importance to you as a health care professional.	6
Learning Outcome: Describe career opportunities for an electrocardiographer.	5
Learning Outcome: Discuss the history of obtaining and using the ECG.	5
Learning Outcome: Explain what an ECG is and its importance in medicine.	5
Learning Outcome: Identify the skills and knowledge needed to perform an ECG	1
Learning Outcome: Identify the skills and knowledge needed to perform an ECG.	15