JONES & BARTLETT LEARNING (JBL) MODULE 2 PRACTICE EXAM (SAMPLE)

STUDY GUIDE

SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

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Introduction

Preparing for a certification exam can feel overwhelming, but with the right tools, it becomes an opportunity to build confidence, sharpen your skills, and move one step closer to your goals. At Examzify, we believe that effective exam preparation isn't just about memorization, it's about understanding the material, identifying knowledge gaps, and building the test-taking strategies that lead to success.

This guide was designed to help you do exactly that.

Whether you're preparing for a licensing exam, professional certification, or entry-level qualification, this book offers structured practice to reinforce key concepts. You'll find a wide range of multiple-choice questions, each followed by clear explanations to help you understand not just the right answer, but why it's correct.

The content in this guide is based on real-world exam objectives and aligned with the types of questions and topics commonly found on official tests. It's ideal for learners who want to:

- Practice answering questions under realistic conditions,
- Improve accuracy and speed,
- Review explanations to strengthen weak areas, and
- Approach the exam with greater confidence.

We recommend using this book not as a stand-alone study tool, but alongside other resources like flashcards, textbooks, or hands-on training. For best results, we recommend working through each question, reflecting on the explanation provided, and revisiting the topics that challenge you most.

Remember: successful test preparation isn't about getting every question right the first time, it's about learning from your mistakes and improving over time. Stay focused, trust the process, and know that every page you turn brings you closer to success.

Let's begin.

How to Use This Guide

This guide is designed to help you study more effectively and approach your exam with confidence. Whether you're reviewing for the first time or doing a final refresh, here's how to get the most out of your Examzify study guide:

1. Start with a Diagnostic Review

Skim through the questions to get a sense of what you know and what you need to focus on. Your goal is to identify knowledge gaps early.

2. Study in Short, Focused Sessions

Break your study time into manageable blocks (e.g. 30 – 45 minutes). Review a handful of questions, reflect on the explanations.

3. Learn from the Explanations

After answering a question, always read the explanation, even if you got it right. It reinforces key points, corrects misunderstandings, and teaches subtle distinctions between similar answers.

4. Track Your Progress

Use bookmarks or notes (if reading digitally) to mark difficult questions. Revisit these regularly and track improvements over time.

5. Simulate the Real Exam

Once you're comfortable, try taking a full set of questions without pausing. Set a timer and simulate test-day conditions to build confidence and time management skills.

6. Repeat and Review

Don't just study once, repetition builds retention. Re-attempt questions after a few days and revisit explanations to reinforce learning. Pair this guide with other Examzify tools like flashcards, and digital practice tests to strengthen your preparation across formats.

There's no single right way to study, but consistent, thoughtful effort always wins. Use this guide flexibly, adapt the tips above to fit your pace and learning style. You've got this!

Questions

1. The primary waste product of aerobic metabolism is:

A. carbon dioxide.

B. lactic acid.

C. pyruvic acid.

D. adenosine triphosphate

2. Which of the following patients should you place in the recovery position?

A. A 24-year-old unconscious female who overdosed and has a reduced tidal volume

B. A 40-year-old conscious female with a possible neck injury and regular respirations

C. A 31-year-old semiconscious male with low blood sugar and adequate breathing

D. A 19-year-old conscious male with a closed head injury and normal respirations

3. A 23-year-old male experienced severe head trauma after his motorcycle collided with an oncoming truck. He is unconscious, has rapid and shallow breathing, and has copious bloody secretions in his mouth. Which airway management sequence is most appropriate?

A. Alternate suctioning 15 seconds with 2 minutes of assisted ventilation.

B. Suction his oropharynx with a rigid catheter until all secretions are removed.

C. Insert a nasopharyngeal airway and provide suction and assisted ventilations.

D. Provide continuous ventilations with a bag-valve mask to minimize hypoxia.

4. The impedance threshold device may improve circulation during CPR by:

A. Maximizing the amount of air in the lungs following chest recoil, which hyperinflates the lungs and forces more blood from the ventricle during each compression.

B. Maintaining increased intrathoracic pressure during the downward stroke of each chest compression, which forces more blood from both of the ventricles.

C. Drawing all of the air out of the lungs in between chest compressions, which causes positive intrathoracic pressure and a reduction of blood return to the right side of the heart.

D. Limiting the amount of air that enters the lungs during the recoil phase between chest compressions, which results in negative intrathoracic pressure and improved cardiac filling.

5. Which substrate is primarily used to produce energy in aerobic metabolism?

A. Glucose

B. Protein

C. Nucleic acids

D. Vitamins

6. CPR should be initiated when a living will is unavailable. Which option best reflects this guidance?

A. rigor mortis is obvious

B. a valid living will is unavailable

C. signs of putrefaction are present

D. the carotid pulse is very weak

7. Your protocols state that during the first few minutes of working on a cardiac arrest patient, you should provide passive ventilation. This means that you will:

A. Deliver positive-pressure ventilation at rate of only 5 or 6 breaths/min.

B. Ventilate with a bag-valve mask that is not attached to oxygen.

C. Time your positive-pressure ventilations to occur during chest recoil.

D. Allow recoil of the chest between compressions to draw air into the lungs.

8. Which flow rate is commonly used with a well-sealed nonrebreathing mask to deliver up to about 90% inspired oxygen?

A. 10 L/min

B. 15 L/min

C. 25 L/min

D. 40 L/min

9. Which are the waste products of aerobic metabolism?

A. Glucose and lactic acid

B. Uric acid and nitrogen

C. Carbon dioxide and water

D. ATP and glucose

10. Which action between chest compressions is essential to maximize effectiveness?

A. administer a breath

B. allow full chest recoil

C. check for a pulse

D. remove hands from chest

Answers

1. A
2. B
3. A
4. D
5. A
6. B
7. D
8. B
9. C
10. D

Explanations

1. The primary waste product of aerobic metabolism is:

A. carbon dioxide.

B. lactic acid.

C. pyruvic acid.

D. adenosine triphosphate

In aerobic metabolism, fuels are fully oxidized to carbon dioxide and water to generate ATP. The primary waste product is carbon dioxide because carbon atoms are released as CO_2 during the oxidative decarboxylation of pyruvate to acetyl-CoA and again during each turn of the citric acid cycle. Oxygen serves as the final electron acceptor in the electron transport chain, forming water as another byproduct, but CO_2 is the main gaseous waste released. Lactic acid arises when oxygen is scarce and glycolysis continues anaerobically, pyruvic acid is an intermediate that feeds into the acetyl-CoA formation, and ATP is the energy molecule produced, not a waste product.

2. Which of the following patients should you place in the recovery position?

A. A 24-year-old unconscious female who overdosed and has a reduced tidal volume

B. A 40-year-old conscious female with a possible neck injury and regular respirations

C. A 31-year-old semiconscious male with low blood sugar and adequate breathing

D. A 19-year-old conscious male with a closed head injury and normal respirations

Recovery position is used to keep the airway open and reduce the risk of aspiration in someone who is not fully conscious but is still breathing on their own. It helps prevent the tongue from blocking the airway and allows fluids to drain instead of collecting in the mouth or throat. The move should be avoided if there's a suspected neck or spinal injury, because turning the person could worsen a spine injury; in such cases you keep them in stable alignment and only move with extreme care and spinal precautions if needed for airway management. In this scenario, the person who is semiconscious with adequate breathing fits the situation where placing them on their side can protect the airway while you address their low blood sugar. If their level of consciousness worsens or breathing becomes insufficient, be prepared to provide airway support or ventilation. For anyone with a suspected neck injury or head injury, any movement should be minimized and performed with appropriate spinal precautions.

3. A 23-year-old male experienced severe head trauma after his motorcycle collided with an oncoming truck. He is unconscious, has rapid and shallow breathing, and has copious bloody secretions in his mouth. Which airway management sequence is most appropriate?

A. Alternate suctioning 15 seconds with 2 minutes of assisted ventilation.

B. Suction his oropharynx with a rigid catheter until all secretions are removed.

C. Insert a nasopharyngeal airway and provide suction and assisted ventilations.

D. Provide continuous ventilations with a bag-valve mask to minimize hypoxia.

When a trauma patient is unconscious with head injury and copious secretions, the priority is to keep the airway clear while ensuring oxygenation. Clearing secretions prevents obstruction and reduces the risk of aspiration, but you also must continue ventilating to prevent hypoxia. The best approach is to alternate brief suctioning with active ventilation so you can both clear the airway and maintain gas exchange. Suctioning for a short, focused period (about 15 seconds) helps remove blood and secretions that are blocking the airway. Immediately following, provide assisted ventilation (bag-valve mask) for a couple of minutes to push oxygen into the lungs and support breathing. This cycle—short suction to clear the airway, then ventilation to maintain oxygenation—is repeated as needed until the airway can be definitively secured. Other options fall short because they either rely too heavily on suction without ensuring ongoing ventilation, or they involve airway devices that are contraindicated in head trauma (such as a nasopharyngeal airway). Providing continuous ventilation without addressing secretions can lead to aspiration and persistent hypoxia, which is why a cycle that balances suction and ventilation is favored in this scenario.

4. The impedance threshold device may improve circulation during CPR by:

A. Maximizing the amount of air in the lungs following chest recoil, which hyperinflates the lungs and forces more blood from the ventricle during each compression.

B. Maintaining increased intrathoracic pressure during the downward stroke of each chest compression, which forces more blood from both of the ventricles.

C. Drawing all of the air out of the lungs in between chest compressions, which causes positive intrathoracic pressure and a reduction of blood return to the right side of the heart.

D. Limiting the amount of air that enters the lungs during the recoil phase between chest compressions, which results in negative intrathoracic pressure and improved cardiac filling.

The impedance threshold device improves circulation during CPR by manipulating intrathoracic pressure during chest recoil. By limiting the amount of air that re-enters the lungs during recoil, the device creates negative intrathoracic pressure. This negative pressure acts like a vacuum, enhancing venous return to the right side of the heart and improving filling (preload) between compressions, which supports better overall blood flow during CPR. The other ideas would not aid CPR this way: increasing air in the lungs after recoil would raise intrathoracic pressure and hinder return; keeping higher pressure during the downward chest compression would also impede venous return; and trying to expel air to create positive pressure would reduce, not improve, venous return.

5. Which substrate is primarily used to produce energy in aerobic metabolism?

A. Glucose

B. Protein

C. Nucleic acids

D. Vitamins

Glucose is the main fuel used to generate energy in aerobic metabolism. It enters glycolysis in the cytosol, producing pyruvate, which is then converted to acetyl-CoA and feeds the citric acid cycle. The resulting NADH and FADH2 donate electrons to the electron transport chain, with oxygen as the final electron acceptor, driving ATP production. This pathway provides a reliable and rapid source of ATP under normal conditions, supporting tissues with high energy demands. Proteins can supply energy when carbohydrates are scarce, but amino acids are not the typical primary source in aerobic conditions. Nucleic acids are not used for energy, and vitamins act as cofactors needed for metabolic reactions rather than direct energy substrates.

6. CPR should be initiated when a living will is unavailable. Which option best reflects this guidance?

A. rigor mortis is obvious

B. a valid living will is unavailable

C. signs of putrefaction are present

D. the carotid pulse is very weak

The main idea is that CPR decisions hinge on whether there is a documented wish about life support. If there is no living will or advance directive to guide resuscitation, the default is to initiate CPR to attempt to preserve life, unless there are clear, unmistakable signs that death has already occurred or explicit directives to withhold resuscitation. In this scenario, the best choice is the one that states a valid living will is unavailable, because it describes the situation where resuscitation should be started. If a living will exists and directs against CPR, you would not perform it. Rigor mortis and putrefaction are definite signs of death, so CPR would not be attempted there. A carotid pulse that is very weak suggests some circulating flow is still present, so CPR is not indicated solely on a weak pulse; assessment and continued monitoring would guide further action.

7. Your protocols state that during the first few minutes of working on a cardiac arrest patient, you should provide passive ventilation. This means that you will:

A. Deliver positive-pressure ventilation at rate of only 5 or 6 breaths/min.

B. Ventilate with a bag-valve mask that is not attached to oxygen.

C. Time your positive-pressure ventilations to occur during chest recoil.

D. Allow recoil of the chest between compressions to draw air into the lungs.

Passive ventilation means letting air enter the lungs as the chest recoils after each compression, without actively delivering breaths. When you allow the chest to return to its resting position, negative intrathoracic pressure helps pull air in through an open airway. That recoil-driven air entry is the essence of passive ventilation during the early minutes of cardiac arrest. So, the best choice describes letting the chest recoil between compressions to draw air into the lungs. The other options involve actively delivering breaths or timing breaths with compressions, which isn't passive ventilation.

8. Which flow rate is commonly used with a well-sealed nonrebreathing mask to deliver up to about 90% inspired oxygen?

A. 10 L/min

B. 15 L/min

C. 25 L/min

D. 40 L/min

The key idea is that delivering a high oxygen concentration with a nonrebreathing mask relies on keeping the reservoir bag full and minimizing room-air entrainment. A well-sealed nonrebreathing mask uses a reservoir bag and one way valves so that during inspiration the patient draws from the bag's oxygen, not from ambient air. Flowing about 15 L/min is commonly used because it is enough to keep the bag inflated and flush out exhaled gas, producing roughly 90% inspired oxygen when the mask fits well. If the flow is too low, like around 10 L/min, the bag can collapse on inspiration, allowing room air to dilute the gas and lowering the FiO2. Higher flow rates, such as 25 or 40 L/min, don't significantly raise FiO2 beyond about 90% in typical use and can be unnecessarily uncomfortable or wasteful.

9. Which are the waste products of aerobic metabolism?

A. Glucose and lactic acid

B. Uric acid and nitrogen

C. Carbon dioxide and water

D. ATP and glucose

In aerobic metabolism, glucose is fully oxidized using oxygen to release energy stored as ATP. The byproducts of this complete oxidation are carbon dioxide and water, which the body eliminates through respiration and excretion. Glucose is the fuel that is consumed, and lactic acid is produced when oxygen is limited (anaerobic conditions), not during normal aerobic respiration. Uric acid and nitrogenous wastes come from broader protein and nucleotide metabolism, not the direct products of aerobic glucose breakdown. ATP and glucose are energy carriers/substrates, not wastes. So carbon dioxide and water are the waste products produced by aerobic metabolism.

10. Which action between chest compressions is essential to maximize effectiveness?

A. administer a breath

B. allow full chest recoil

C. check for a pulse

D. remove hands from chest

Allowing full chest recoil between compressions is what maximizes effectiveness. When you compress the chest, you push blood out of the heart; letting the chest fully rebound returns it to its normal size, creating negative pressure that pulls blood back into the heart. This recoil is essential for filling the heart so the next compression can push a good amount of blood out again. If you don't recoil completely or you keep your hands on the chest, blood flow to vital organs drops because the heart doesn't fill adequately. Removing your hands would stop compressions entirely and disrupt the cycle. Breaths between compressions can be part of some protocols, but they don't by themselves maximize the effectiveness of the chest compressions.

Next Steps

Congratulations on reaching the final section of this guide. You've taken a meaningful step toward passing your certification exam and advancing your career.

As you continue preparing, remember that consistent practice, review, and self-reflection are key to success. Make time to revisit difficult topics, simulate exam conditions, and track your progress along the way.

If you need help, have suggestions, or want to share feedback, we'd love to hear from you. Reach out to our team at hello@examzify.com.

Or visit your dedicated course page for more study tools and resources:

https://jblmodule2.examzify.com

We wish you the very best on your exam journey. You've got this!