CERTIFIED FLIGHT REGISTERED NURSE (CFRN) 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.

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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!

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Questions

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1. Which of the following best describes anaerobic metabolism?

A. Utilization of oxygen for energy production

B. Energy production in the absence of oxygen

C. Conversion of glucose to pyruvate

D. Production of carbon dioxide

2. The heat produced at rest from normal metabolic functions is referred to as the?

A. Basic metabolism rate

B. Base metabolic rate

C. Basal metabolic rate

D. Basic metabolic requirement

3. Which condition is associated with the accumulation of blood in the right shoulder due to liver injury?

A. Gourd's sign

B. Kehr's sign

C. Vagal's sign

D. Hobb's sign

4. In a patient with acute kidney injury, which electrolyte imbalance is commonly present?

A. Hyperkalemia

B. Hyponatremia

C. Hypercalcemia

D. Hypomagnesemia

5. Trauma in the pediatric patient is the most common cause of _____ shock.

A. Anaphylactic

B. Hypovolemic

C. Neurogenic

D. Cardiogenic

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6. Liver injuries will cause pain in which area along with right shoulder pain?

A. Left upper quadrant

B. Right upper quadrant

C. Mid-abdomen

D. Lower abdomen

7. What is commonly expected regarding the liver and spleen in a child?

A. Be enlarged

B. Bleed easily

C. Be palpated below the costal margin

D. Push up against the diaphragm, causing decreased vital capacity

8. What is a key benefit of using Pressure Support in mechanical ventilation?

A. It eliminates the need for mandatory breaths.

B. It enhances patient comfort during spontaneous breaths.

C. It provides a constant airway pressure.

D. It is effective for all patients, whether they initiate breaths or not.

9. Which of the following is the most commonly injured organ in the abdominal cavity?

A. Pancreas

B. Spleen

C. Liver

D. Kidneys

10. Peripheral edema and ascites in liver failure are primarily due to deficiency in which protein?

A. Globulin

B. Albumin

C. Fibrinogen

D. Prothrombin

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Answers

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

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Explanations

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1. Which of the following best describes anaerobic metabolism?

A. Utilization of oxygen for energy production

B. Energy production in the absence of oxygen

C. Conversion of glucose to pyruvate

D. Production of carbon dioxide

Anaerobic metabolism is defined as the process of energy production in the absence of oxygen. This process typically occurs in conditions where oxygen supply is insufficient for aerobic metabolism, such as during intense physical activity or in certain pathological conditions. In anaerobic metabolism, glucose is partially broken down to generate energy in the form of ATP, along with byproducts such as lactic acid, instead of being fully metabolized to carbon dioxide and water as it would be in the presence of oxygen. While the conversion of glucose to pyruvate is a part of both anaerobic and aerobic metabolism, the key distinction is that anaerobic metabolism focuses on energy production without the use of oxygen. The production of carbon dioxide, which can occur during different types of metabolism, is also not exclusive to anaerobic processes since aerobic metabolism also produces carbon dioxide as a byproduct of fully oxidized glucose. Thus, the focus on energy production in the absence of oxygen encapsulates the essence of anaerobic metabolism effectively, making it the best descriptor among the provided choices.

2. The heat produced at rest from normal metabolic functions is referred to as the?

A. Basic metabolism rate

B. Base metabolic rate

C. Basal metabolic rate

D. Basic metabolic requirement

The correct answer, "Basal metabolic rate," refers to the amount of energy expended by an individual at rest to maintain vital physiological functions, such as breathing, circulating blood, and cell production. This measurement is taken in a thermally neutral environment, ensuring that the body is neither gaining nor losing heat, which allows for an accurate representation of energy expenditure under resting conditions. The basal metabolic rate is significant in understanding overall metabolism and energy balance and serves as a crucial parameter for assessing nutritional needs and metabolic health. The other options do not accurately reflect the established definition: "Basic metabolism rate" and "Base metabolic rate" may sound similar, but they lack the proper terminology recognized in medical and scientific literature. "Basic metabolic requirement" is not a defined term in this context. Therefore, "Basal metabolic rate" is the precise term used in physiology and nutrition to denote the heat produced at rest from normal metabolic functions.

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3. Which condition is associated with the accumulation of blood in the right shoulder due to liver injury?

A. Gourd's sign

B. Kehr's sign

C. Vagal's sign

D. Hobb's sign

The accumulation of blood in the right shoulder due to liver injury is associated with Kehr's sign. This sign indicates referred pain that can occur when there is irritation of the diaphragm, often from the liver or splenic injuries. Blood or other irritants can lead to diaphragmatic irritation, which then refers pain to the shoulder area via the phrenic nerve, since both structures share the same spinal level. This understanding helps highlight the pathophysiology behind Kehr's sign as a crucial concept in emergency and critical care settings, especially for a Certified Flight Registered Nurse. Recognizing this sign can aid in the assessment of patients with potential abdominal injuries, helping guide further evaluation and management decisions in a flight environment.

4. In a patient with acute kidney injury, which electrolyte imbalance is commonly present?

A. Hyperkalemia

B. Hyponatremia

C. Hypercalcemia

D. Hypomagnesemia

In patients with acute kidney injury (AKI), hyperkalemia, or elevated levels of potassium in the blood, is commonly present due to the kidneys' reduced ability to excrete potassium. The kidneys play a crucial role in maintaining electrolyte balance, including the regulation of potassium levels. When kidney function declines, potassium is not effectively removed from the bloodstream, leading to its accumulation. Hyperkalemia can have serious consequences, including cardiac arrhythmias, which is why its monitoring is essential in patients with AKI. Management strategies may include dietary restrictions on potassium, the use of medications that promote potassium excretion, or interventions such as dialysis if the hyperkalemia is severe. In contrast, while other electrolyte imbalances like hyponatremia, hypercalcemia, and hypomagnesemia may occur in various conditions, they are not as directly associated with AKI as hyperkalemia. Hyponatremia can be present but is less common in the context of AKI, and it may depend on various other factors such as fluid status and the specific type of kidney injury. Hypercalcemia is generally not a characteristic finding in AKI, as the kidneys usually help excrete excess calcium. Similarly, hypomagnesemia doesn't typically arise

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5. Trauma in the pediatric patient is the most common cause of _____ shock.

A. Anaphylactic

B. Hypovolemic

C. Neurogenic

D. Cardiogenic

The correct answer is hypovolemic shock, which occurs when there is a significant loss of blood volume, leading to inadequate circulation of blood in the body. In pediatric patients, trauma often results in severe bleeding, whether from external wounds or internal injuries. This rapid loss of blood can quickly lead to hypovolemic shock, where the body's compensatory mechanisms fail, resulting in decreased perfusion to vital organs. Hypovolemic shock is particularly critical to recognize and address in pediatric trauma cases, as children may not tolerate significant fluid loss as well as adults due to their smaller overall blood volume. Early identification and treatment are essential in managing hypovolemic shock effectively, as it can swiftly become life-threatening. In contrast, anaphylactic shock is a severe allergic reaction that results in cardiovascular collapse, neurogenic shock is due to a disruption of the autonomic pathways which usually follows a spinal cord injury, and cardiogenic shock is due to the heart's inability to pump effectively. While these other types of shock are important in their own right, they are not the most common consequence of trauma in pediatric patients.

6. Liver injuries will cause pain in which area along with right shoulder pain?

A. Left upper quadrant

B. Right upper quadrant

C. Mid-abdomen

D. Lower abdomen

The correct choice is associated with the right upper quadrant because the liver is primarily located in that region of the abdomen. When there is an injury to the liver, it can result in pain that is felt in the right upper quadrant due to the organ's anatomical positioning. Additionally, the right shoulder pain stems from irritation of the diaphragm or the phrenic nerve, which is innervated by C3-C5 spinal levels. This process is known as referred pain, where injury or inflammation in the liver can trigger sensory pathways that correlate with pain in the right shoulder. The other regions mentioned do not correlate with liver injuries in the same way. The left upper quadrant is associated more with the spleen and stomach, while mid-abdomen pain tends to occur with digestive or other midline issues. The lower abdomen typically reflects conditions related to the intestines, urinary system, or reproductive organs but does not typically indicate liver involvement. Understanding these anatomical and physiological relationships helps clarify why the right upper quadrant is the focus when considering liver-related injuries and symptoms.

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7. What is commonly expected regarding the liver and spleen in a child?

A. Be enlarged

B. Bleed easily

C. Be palpated below the costal margin

D. Push up against the diaphragm, causing decreased vital capacity

When considering the development and anatomy of a child's abdominal organs, it is typical to find that the liver and spleen may be palpated below the costal margin, especially in younger children. This is due to several factors, including their anatomical positioning and the presence of less abdominal fat compared to adults. In children, the liver is often about 1 to 2 cm below the costal margin upon examination, making it within reach during a careful abdominal palpation. Similarly, the spleen may also be felt just inferior to the left costal margin when conditions allow, such as in cases of splenomegaly or when the child is in certain positions. An enlarging liver or spleen typically indicates an underlying health issue, and so these anatomical characteristics are vital for assessment during a clinical examination. Understanding this helps healthcare providers recognize what may be a normal finding versus an indicator of a pathological condition. This knowledge contributes to effective pediatric care and quick diagnosis of potential issues.

8. What is a key benefit of using Pressure Support in mechanical ventilation?

A. It eliminates the need for mandatory breaths.

B. It enhances patient comfort during spontaneous breaths.

C. It provides a constant airway pressure.

D. It is effective for all patients, whether they initiate breaths or not.

Using Pressure Support in mechanical ventilation primarily enhances patient comfort during spontaneous breaths. When a patient initiates a breath in this mode, the ventilator provides a preset level of pressure support to assist with the breath. This type of support reduces the work of breathing, allowing the patient to take more comfortable and effortless breaths. This is particularly beneficial for patients experiencing respiratory distress or fatigue, as it alleviates the effort required to inhale. In addition to comfort, the use of Pressure Support can promote patient-ventilator synchrony, which is crucial for maintaining an effective ventilation strategy without causing discomfort or distress. When ventilation is synchronized with the patient's efforts, it can lead to improved outcomes and greater patient satisfaction. It's important to note that while it helps facilitate spontaneous breaths, this mode does not eliminate the need for mandatory breaths in all contexts, as certain patients may still require controlled ventilation. Moreover, the pressure provided is not constant throughout the entire breathing cycle, as it is designed to only support the effort made by the patient. Lastly, Pressure Support is not effective for every patient, especially those who are unable to initiate breaths on their own, highlighting the need for careful patient assessment before selecting this mode of ventilation.

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9. Which of the following is the most commonly injured organ in the abdominal cavity?

A. Pancreas

B. Spleen

C. Liver

D. Kidneys

The spleen is the most commonly injured organ in the abdominal cavity, particularly in cases of blunt abdominal trauma, such as motor vehicle accidents or sports injuries. This is largely due to its anatomical position and the fact that it is relatively unprotected compared to other abdominal organs. The spleen is also highly vascular, meaning that when it is injured, it can lead to significant internal bleeding, which can be life-threatening. Injuries to the spleen can vary from minor lacerations to complete ruptures. In trauma cases, the management of spleen injuries often involves the decision between surgical intervention and non-operative management, depending on the severity of the injury and the patient's hemodynamic stability. Understanding the risk factors for spleen injury, as well as the associated complications, is crucial for healthcare professionals, particularly those in emergency and flight nursing, as rapid assessment and management can greatly influence patient outcomes.

10. Peripheral edema and ascites in liver failure are primarily due to deficiency in which protein?

A. Globulin

B. Albumin

C. Fibrinogen

D. Prothrombin

In cases of liver failure, peripheral edema and ascites commonly result from a deficiency in albumin. Albumin is a protein produced by the liver that plays a crucial role in maintaining oncotic pressure within the blood vessels. This oncotic pressure is essential for retaining fluid within the vascular compartment. When the liver is impaired and cannot produce sufficient albumin, the oncotic pressure decreases. As a result, fluid leaks out of the blood vessels into the surrounding tissues and abdominal cavity, leading to peripheral edema and ascites. The other proteins listed, while important, are not the primary contributors to edema and ascites in liver failure. Globulin plays a role in immune responses, fibrinogen is critical for coagulation, and prothrombin is involved in blood clotting. While all these proteins have important functions, their deficiencies are not primarily responsible for the fluid accumulation observed in liver failure. Therefore, the relationship between albumin levels and fluid balance is key to understanding the development of these complications in liver disease.

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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://cfrn.examzify.com

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

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