

TEXAS A&M UNIVERSITY (TAMU) NUTR222 NUTRITION FOR HEALTH AND HEALTH CARE EXAM 4 PRACTICE (SAMPLE)

STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

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THE FULL VERSION STUDY GUIDE

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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

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- 1. What can increase cardiac output?**
 - A. Decrease in blood pressure
 - B. Increase in blood volume
 - C. Reduction of heart rate
 - D. Stabilization of cholesterol levels
- 2. What is a common symptom seen in advanced cirrhosis?**
 - A. Elevated energy levels
 - B. Fatigue
 - C. Improved appetite
 - D. Weight gain
- 3. What defines peripheral resistance in the cardiovascular system?**
 - A. The pressure exerted by blood in the heart
 - B. The resistance of blood as it flows through small arterial branches
 - C. The overall blood volume in the body
 - D. The rate at which the heart pumps blood
- 4. What is a potential consequence of malabsorption in individuals with HIV/AIDS?**
 - A. Weight maintenance
 - B. Dehydration
 - C. Anemia
 - D. Stable nutritional status
- 5. Which of the following describes alternative therapies for cancer?**
 - A. Only surgery is included
 - B. Medications and full body radiation are examples
 - C. Alternative therapies are ineffective
 - D. They are always the first choice of treatment
- 6. What is the general recommendation for fish consumption for diabetics?**
 - A. Once a week
 - B. Twice a week
 - C. Every day
 - D. Only on special occasions

7. What term describes a substance that causes DNA damage leading to cancer?

- A. Mutagen
- B. Carcinogen
- C. Teratogen
- D. Antigen

8. What defines Type II diabetes?

- A. Complete lack of insulin production
- B. Insulin resistance with some insulin production
- C. Only occurs during pregnancy
- D. Exclusively managed by diet

9. What is congestive heart failure?

- A. A condition where the heart can pump blood effectively
- B. A state of fluid retention in the lungs
- C. The heart's inability to pump adequate blood
- D. A temporary increase in heart rate

10. What characterizes gestational diabetes?

- A. Diabetes that develops after age 40
- B. Abnormal blood glucose maintenance during pregnancy
- C. Type I diabetes diagnosed in pregnancy
- D. Permanent diabetes resulting from pregnancy

Answers

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

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Explanations

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1. What can increase cardiac output?

- A. Decrease in blood pressure
- B. Increase in blood volume**
- C. Reduction of heart rate
- D. Stabilization of cholesterol levels

Cardiac output is the volume of blood the heart pumps per minute, and it can be influenced by several factors. An increase in blood volume is one of the key factors that can enhance cardiac output. When blood volume increases, the heart receives more blood returning to it from the veins during diastole (the heart's relaxation phase), which can lead to a greater stroke volume (the amount of blood pumped with each heartbeat). According to the Frank-Starling law of the heart, within physiological limits, an increase in the amount of blood in the heart before contraction (preload) stretches the heart muscle, which can enhance its contractions and result in increased cardiac output. In contrast, decreased blood pressure may negatively impact the force that drives blood flow and could lead to a reduced cardiac output. Similarly, a reduction of heart rate often means that the heart is beating less frequently, which typically yields a lower cardiac output unless it is compensated by a significantly increased stroke volume. Stabilizing cholesterol levels, while important for overall cardiovascular health, does not directly affect the mechanics of cardiac output. Therefore, increasing blood volume stands out as the factor that can effectively lead to an increase in cardiac output.

2. What is a common symptom seen in advanced cirrhosis?

- A. Elevated energy levels
- B. Fatigue**
- C. Improved appetite
- D. Weight gain

In advanced cirrhosis, fatigue is a prevalent symptom primarily due to the liver's diminished capacity to perform its essential functions. The liver plays a critical role in metabolism, including energy production, detoxification, and synthesis of proteins. As cirrhosis progresses, these functions become compromised, leading to a buildup of toxins in the blood, nutrient deficiencies, and an overall decline in metabolic efficiency—all contributing to feelings of tiredness and reduced energy levels. Fatigue in cirrhosis can also be exacerbated by complications such as encephalopathy, which can lead to confusion and lethargy. Additionally, the body's effort to cope with the liver's dysfunction can further sap energy levels, making fatigue an almost universal experience for those with advanced liver disease. In contrast, elevated energy levels and improved appetite are typically not associated with advanced cirrhosis, as the body is unable to efficiently process nutrients and energy. Weight gain is also uncommon during this stage due to the loss of muscle mass and overall catabolism, often leading to unintended weight loss instead.

3. What defines peripheral resistance in the cardiovascular system?

- A. The pressure exerted by blood in the heart
- B. The resistance of blood as it flows through small arterial branches**
- C. The overall blood volume in the body
- D. The rate at which the heart pumps blood

Peripheral resistance refers to the resistance encountered by blood as it flows through the smaller arterial branches in the cardiovascular system. This resistance is largely influenced by the diameter of these blood vessels; as the vessels constrict, the resistance increases, and vice versa. Peripheral resistance plays a crucial role in regulating blood pressure and ensuring adequate blood flow to various tissues in the body. When blood is pumped from the heart, it enters the larger arteries, where it experiences relatively low resistance. However, as it travels through progressively smaller vessels, the cross-sectional area increases, leading to greater overall resistance specifically in these small arteries and arterioles. This dynamic is vital because it helps regulate blood pressure and flow, adapting to the metabolic needs of different tissues. Understanding this concept is critical for recognizing how the cardiovascular system maintains homeostasis and responds to various physiological demands, such as during exercise or in states of rest.

4. What is a potential consequence of malabsorption in individuals with HIV/AIDS?

- A. Weight maintenance
- B. Dehydration
- C. Anemia**
- D. Stable nutritional status

Malabsorption in individuals with HIV/AIDS can lead to significant nutritional deficiencies, which is why anemia is a potential consequence. The disease often affects the gastrointestinal tract, impairing nutrient absorption, particularly vital nutrients such as iron, folate, and vitamin B12. These nutrients are essential for the production of red blood cells. When their absorption is compromised, it can result in anemia, characterized by a reduced number of red blood cells or hemoglobin, leading to fatigue, weakness, and other health complications. Weight maintenance and stable nutritional status are generally compromised in cases of malabsorption, as the body is unable to adequately absorb required nutrients. Dehydration can occur as a result of diarrhea, which is common in individuals with HIV/AIDS, but it is the anemia linked to nutrient deficiencies that is a more direct consequence of malabsorption.

5. Which of the following describes alternative therapies for cancer?

- A. Only surgery is included
- B. Medications and full body radiation are examples**
- C. Alternative therapies are ineffective
- D. They are always the first choice of treatment

The correct choice highlights that alternative therapies can include various interventions, such as medications and full body radiation. This reflects a broader understanding of how cancer can be treated beyond traditional methods. While alternative therapies typically encompass non-standard treatment options that might be used in conjunction with or as substitutes for mainstream treatments, they often include an array of approaches. Full body radiation is a treatment method that can indeed be considered when discussing cancer therapies, as it applies therapeutic agents to the entire body. Medications also fall under this umbrella when they are used in less conventional or complementary roles as part of an overall treatment plan. In this context, it's essential to understand that while alternative therapies may not always be the primary course of action in cancer treatment, they can play a significant role, particularly in supportive care or patient preference scenarios.

6. What is the general recommendation for fish consumption for diabetics?

- A. Once a week
- B. Twice a week**
- C. Every day
- D. Only on special occasions

The recommendation for fish consumption for individuals with diabetes is generally twice a week. Fish, particularly fatty fish like salmon, mackerel, and sardines, are rich in omega-3 fatty acids, which can provide numerous health benefits including reducing inflammation and improving heart health. For diabetics, maintaining heart health is particularly important as they are at a higher risk for cardiovascular disease. Having fish two times a week allows for a consistent intake of these beneficial nutrients without overconsuming, which is important for managing overall dietary balance. This frequency of consumption can also support a diverse diet that includes other protein sources, ensuring a well-rounded nutritional profile. Eating fish every day might not be practical or necessary for everyone, and could lead to excessive consumption of certain nutrients or contaminants found in fish. Similarly, having fish only on special occasions would not maximize the potential health benefits associated with regular fish intake. Therefore, the guideline of consuming fish twice a week strikes a balance that is beneficial for those managing diabetes.

7. What term describes a substance that causes DNA damage leading to cancer?

- A. Mutagen
- B. Carcinogen**
- C. Teratogen
- D. Antigen

The term that describes a substance that causes DNA damage leading to cancer is "mutagen." A mutagen is an agent that causes changes or mutations in the genetic material of an organism. These mutations can lead to various issues, including cancer when the mutations affect genes that regulate cell growth and division. While a carcinogen is a substance that promotes the formation of cancer, the mechanism often involves initial DNA damage caused by a mutagen. In this context, it's important to understand the relationship between mutagens and carcinogens. Many carcinogens are also mutagens, as they can alter DNA in ways that lead to uncontrolled cell growth. However, not all mutagens necessarily lead to cancer, as some mutations can be repaired by the body's mechanisms before causing any harmful effects. A teratogen refers to substances that cause developmental anomalies in a developing embryo or fetus, which is a different process from cancer development. An antigen is a substance that triggers an immune response, unrelated to the mechanisms of cancer and genetic mutations.

8. What defines Type II diabetes?

- A. Complete lack of insulin production
- B. Insulin resistance with some insulin production**
- C. Only occurs during pregnancy
- D. Exclusively managed by diet

Type II diabetes is characterized primarily by insulin resistance, which means that the body's cells do not respond effectively to insulin, a hormone that helps regulate blood sugar levels. Additionally, individuals with Type II diabetes often still produce some insulin, although it may be inadequate relative to their body's needs. This combination of insulin resistance and altered insulin secretion leads to elevated blood glucose levels over time, which is a hallmark of the condition. In contrast, the other choices identify conditions or characteristics that do not accurately represent Type II diabetes. For example, a complete lack of insulin production is more indicative of Type I diabetes, which is an autoimmune condition. Correspondingly, saying that Type II diabetes only occurs during pregnancy is misleading, as gestational diabetes is a different condition that may resolve after childbirth but can also predispose individuals to develop Type II diabetes later. Furthermore, while diet is an important aspect of managing Type II diabetes, it is not the sole method of management; medications and lifestyle changes are also critical components of treatment. Thus, recognizing that Type II diabetes is defined by insulin resistance combined with some level of insulin production is essential for understanding the disease and its implications for health management.

9. What is congestive heart failure?

- A. A condition where the heart can pump blood effectively
- B. A state of fluid retention in the lungs
- C. The heart's inability to pump adequate blood**
- D. A temporary increase in heart rate

Congestive heart failure is best described as a condition where the heart's ability to pump blood is compromised, leading to an inadequate blood supply to meet the body's needs. In this state, the heart does not work efficiently, which can result in symptoms such as fatigue, shortness of breath, and fluid retention. This condition can lead to a range of complications, including the buildup of fluid in the lungs (pulmonary congestion) and other tissues in the body. While fluid retention in the lungs is a related symptom, it does not define congestive heart failure itself. Instead, it is a consequence of the heart's impaired function. Understanding congestive heart failure as the heart's inability to pump adequate blood also highlights the importance of managing the underlying causes and symptoms to improve the patient's quality of life. This includes networked approaches involving medication, lifestyle changes, and sometimes surgical interventions, all aimed at optimizing cardiac function and reducing fluid overload.

10. What characterizes gestational diabetes?

- A. Diabetes that develops after age 40
- B. Abnormal blood glucose maintenance during pregnancy**
- C. Type I diabetes diagnosed in pregnancy
- D. Permanent diabetes resulting from pregnancy

Gestational diabetes is characterized by abnormal blood glucose maintenance during pregnancy, which is precisely why this answer is correct. This condition typically arises when the body cannot produce enough insulin to meet the increased demands during pregnancy, resulting in elevated blood glucose levels. It usually develops in the second or third trimester and can affect the health of both the mother and the baby if left unmanaged. The other options describe conditions that do not accurately reflect the nature of gestational diabetes. Diabetes that develops after age 40 refers to adult-onset diabetes, commonly type 2 diabetes, rather than a pregnancy-related condition. Type I diabetes diagnosed in pregnancy pertains to a pre-existing autoimmune condition rather than gestational diabetes, which is specifically triggered during pregnancy. Lastly, gestational diabetes is not a permanent condition – it usually resolves after childbirth, although it does increase the risk of developing type 2 diabetes later in life.

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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:

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

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