WJEC Food Science and Nutrition Level 3 Practice Test (Sample)

Study Guide

BY EXAMZIFY

Everything you need from our exam experts!

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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. How many calories are in one gram of fat?

A. 3.75 kcal

B. 4 kcal

C. 9 kcal

D. 2 kcal

2. Which term describes heart disease caused by plaque buildup in the coronary arteries?

A. Stroke

B. Coronary Heart Disease (CHD)

C. Excess Protein

D. Fats and Oils

3. Which diet is described as dairy and fish, but no meat?

A. Frutarian

B. Pescatarian

C. Vegan

D. Ovo vegetarian

4. Which statement best describes nut allergy?

A. Ranges from rash to anaphylactic shock

B. Epipens give adrenaline to provide extra energy

C. Good food hygiene reduces risk

D. Nut allergy is cured by antibiotics

5. Which statement is true about fat-soluble vitamins?

A. They are stored in body fat

B. They must be consumed at every meal

C. They provide most of the body's energy

D. They are excreted in urine immediately

6. What percentage of a diet should be fats and oils?

A. 8

B. 6

C. 5

D. 2

7. What happens to energy requirements as you become elderly?

A. Increase by about 400 kcal

B. Decrease by about 200 kcal

C. Stay the same

D. Increase by about 100 kcal

8. Which vitamin's function is energy release and nervous system?

A. Niacin (B3)

B. Folic acid (B9)

C. Thiamin (B1)

D. Riboflavin (B2)

9. Excess protein can strain the liver and reduce bile production, potentially causing diarrhoea. Which organ is primarily affected?

A. Heart

B. Lung

C. Kidney

D. Liver

10. Which pathogen is commonly associated with raw chicken and raw eggs?

A. Staphylococcus aureus

B. Escherichia coli

C. Clostridium perfringens

D. Salmonella

Answers

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

Explanations

1. How many calories are in one gram of fat?

A. 3.75 kcal

B. 4 kcal

C. 9 kcal

D. 2 kcal

Fats store the most energy per gram among the main nutrients. Their chemical structure holds a lot of energy in the carbon–hydrogen bonds, and fat contains relatively little oxygen, so when it's metabolized a large amount of energy is released. The standard energy yield used in nutrition is about 9 kilocalories per gram for fat. In comparison, carbohydrates and proteins provide roughly 4 kcal per gram, and alcohol about 7 kcal per gram. So the correct value is 9 kcal per gram.

2. Which term describes heart disease caused by plaque buildup in the coronary arteries?

A. Stroke

B. Coronary Heart Disease (CHD)

C. Excess Protein

D. Fats and Oils

Coronary heart disease describes heart disease caused by plaque buildup in the coronary arteries. The arteries that feed the heart muscle can become narrowed by atheroma (plaque), which reduces blood flow and oxygen to the heart, potentially leading to angina or a heart attack. This specific process is what CHD refers to. Stroke is a brain issue, not a heart issue, so it isn't the correct term here. Excess protein and fats and oils relate to diet rather than a disease name.

3. Which diet is described as dairy and fish, but no meat?

A. Frutarian

B. Pescatarian

C. Vegan

D. Ovo vegetarian

Understanding how diets are defined by what foods they include helps here. If a diet allows dairy and fish but has no meat from land animals, it matches a pescatarian pattern—fish is the main animal protein, and dairy is permitted. The other options don't fit that combination: a fruit-based diet centers on fruit; vegan excludes all animal products including dairy; an ovo vegetarian includes eggs but typically excludes dairy. So the best match is pescatarian.

4. Which statement best describes nut allergy?

A. Ranges from rash to anaphylactic shock

B. Epipens give adrenaline to provide extra energy

C. Good food hygiene reduces risk

D. Nut allergy is cured by antibiotics

Nut allergy is an immune reaction to proteins in nuts. Reactions can vary from mild signs like a rash or itching to a life-threatening reaction called anaphylaxis. That broad range—from a skin rash to potential anaphylactic shock—best describes how nut allergy can present and progress. Epipen adrenaline is used to treat anaphylaxis by reversing symptoms, not to boost energy. Good food hygiene helps prevent foodborne illness but does not prevent or cure allergies. Antibiotics do not cure allergies, since allergies are immune-system-driven rather than bacterial infections.

5. Which statement is true about fat-soluble vitamins?

A. They are stored in body fat

B. They must be consumed at every meal

C. They provide most of the body's energy

D. They are excreted in urine immediately

Fat-soluble vitamins have the ability to be stored in the body's tissues, particularly in fat and the liver, rather than needing to be consumed every day. Because they dissolve in fat and are absorbed with dietary fats, they can accumulate when intake is high, providing a reservoir for later use. They do not supply energy themselves, since vitamins provide no calories, and they are not rapidly excreted in urine; excess is handled more slowly, with elimination mainly through the bile and into the feces.

6. What percentage of a diet should be fats and oils?

A. 8

B. 6

C. 5

D. 2

The key idea here is how much fat is considered appropriate in a diet when energy intake needs to be controlled. Fats are very energy-dense, so in strategies that aim to limit total calories, fats are kept to a very small portion of the diet. The lowest percentage, 2%, reflects this approach: it allows only a tiny amount of fats to ensure some essential fatty acids and fat-soluble vitamins are still provided, while keeping overall energy from fat very low to help with weight management or medical dietary goals. The larger percentages would raise energy density too much for a strict low-fat plan.

7. What happens to energy requirements as you become elderly?

A. Increase by about 400 kcal

B. Decrease by about 200 kcal

C. Stay the same

D. Increase by about 100 kcal

As you age, your body uses less energy at rest and you're often less physically active, so overall daily energy needs fall. Lean body mass tends to decrease, and this lowers the basal metabolic rate, meaning you burn fewer calories even when not exercising. Because of these changes, a typical adjustment is a reduction of about 200 kcal per day to keep energy balance reasonable in older adults. Increasing energy needs or keeping them the same doesn't fit the slower metabolism and often reduced activity, so those options aren't appropriate.

8. Which vitamin's function is energy release and nervous system?

A. Niacin (B3)

B. Folic acid (B9)

C. Thiamin (B1)

D. Riboflavin (B2)

Understanding how vitamins support energy release and nervous system function. Thiamin's active form, thiamin pyrophosphate, acts as a coenzyme in carbohydrate metabolism, enabling key steps that convert glucose into usable energy. It helps enzymes that convert pyruvate to acetyl-CoA and supports other reactions in energy production, which is especially important for tissues with high energy demands like nerves. Adequate thiamin ensures nerves have the energy they need to transmit signals properly; a deficiency can impair both energy production and nerve function, leading to problems such as fatigue and neurological symptoms. While other vitamins also participate in energy metabolism, they're not as directly linked to nervous system function as thiamin. Folic acid mainly supports DNA synthesis and cell growth, whereas niacin and riboflavin are involved in redox reactions in energy pathways but don't have the same direct connection to nerve function as thiamin.

9. Excess protein can strain the liver and reduce bile production, potentially causing diarrhoea. Which organ is primarily affected?

A. Heart

B. Lung

C. Kidney

D. Liver

The liver handles amino acid metabolism and nitrogen waste removal, which makes it the organ most involved when protein intake is high. After digestion, amino acids are deaminated in the liver, producing ammonia that must be converted to urea for elimination. This places a significant workload on the liver. Bile production, essential for digesting fats, also occurs in the liver, and when the liver is strained, bile output can drop. Less bile impairs fat digestion and can lead to diarrhoea or loose stools due to fat malabsorption. The heart and lungs aren't focused on nitrogen processing or bile production, and while the kidneys excrete urea, the described effect—reduced bile and diarrhoea from excess protein—is driven by liver function.

10. Which pathogen is commonly associated with raw chicken and raw eggs?

A. Staphylococcus aureus

B. Escherichia coli

C. Clostridium perfringens

D. Salmonella

Salmonella is the pathogen most closely linked to raw poultry and raw eggs. It lives in the digestive tracts of animals and can contaminate chicken during processing or eggs inside the hen. If foods containing this pathogen are eaten without being cooked thoroughly or are cross-contaminated, illness can occur. Cooking poultry and eggs to safe temperatures and preventing cross-contamination effectively reduces this risk. Other bacteria may cause food safety issues in different contexts—Staphylococcus aureus often relates to toxin formation in prepared foods left at room temperature, E. coli indicates fecal contamination in some foods, and Clostridium perfringens is tied to improper cooling of cooked meat—but Salmonella remains the classic risk associated specifically with raw chicken and eggs.

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://wjecfoodsciencenutritionlvl3.examzify.com

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