

AAB MEDICAL TECHNOLOGIST (MT) – BASIC KNOWLEDGE PRACTICE EXAM (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. Which federal agency issues regulations to ensure employee safety?**
 - A. Occupational Safety and Health Administration (OSHA)
 - B. Environmental Protection Agency (EPA)
 - C. Nuclear Regulatory Commission (NRC)
 - D. Department of Health and Human Services (HHS)
- 2. What is the A/G ratio if the total protein is 7.2 g/dL with Albumin 3.8 g/dL and other fractions totaling 3.4 g/dL?**
 - A. 1.0
 - B. 1.1
 - C. 0.9
 - D. 1.25
- 3. Which document is not required to be kept in the employee's personnel records?**
 - A. Job competency training checklist
 - B. Continuing education documents
 - C. Remedial action documentation
 - D. Annual performance appraisal
- 4. Which agency is responsible for enforcing equal pay for equal work?**
 - A. Fair Labor Standards Act (FLSA)
 - B. Office of Personnel Management (OPM)
 - C. National Labor Relations Board (NLRB)
 - D. Equal Employment Opportunity Commission (EEOC)
- 5. What is the typical outcome of a positive blood culture?**
 - A. Indication of healthy immune response
 - B. Detection of a potential infection
 - C. Confirmation of a recent vaccination
 - D. Assessment of blood clotting ability

- 6. What is the function of thrombocytes?**
- A. To carry oxygen throughout the body
 - B. To assist in blood clotting and repair of blood vessels
 - C. To produce antibodies
 - D. To transport nutrients
- 7. What is required for legal blood alcohol, pre-employment drug screening, and paternity testing to ensure integrity?**
- A. Chain of custody
 - B. Verbal consent
 - C. Diagnostic approval
 - D. Laboratory accreditation
- 8. If the mean for BUN is 18.0 and one standard deviation is 0.15, what is the acceptable range for this control?**
- A. 16.5-17.5 mg/dL
 - B. 17.7-18.3 mg/dL
 - C. 18.0-19.0 mg/dL
 - D. 17.0-17.5 mg/dL
- 9. What can elevated liver enzymes in a blood test indicate?**
- A. High cholesterol levels.
 - B. Possible liver damage or disease.
 - C. Kidney dysfunction.
 - D. Anemia.
- 10. What is indicated by a high A/G ratio?**
- A. Kidney dysfunction
 - B. Excessive protein loss
 - C. High protein intake
 - D. Immune system issues

Answers

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

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Explanations

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1. Which federal agency issues regulations to ensure employee safety?

A. Occupational Safety and Health Administration (OSHA)

B. Environmental Protection Agency (EPA)

C. Nuclear Regulatory Commission (NRC)

D. Department of Health and Human Services (HHS)

The Occupational Safety and Health Administration (OSHA) is the federal agency responsible for issuing regulations that ensure employee safety in the workplace. OSHA develops and enforces standards aimed at minimizing the risk of work-related injuries and illnesses. This includes regulations concerning hazardous materials, proper safety equipment, and the overall working environment, thus promoting a safer workplace for all employees. OSHA's primary focus is on occupational safety and health, making it the authority that businesses must comply with regarding employee welfare. It conducts inspections and has the power to enforce compliance with safety regulations, ensuring employers are held accountable for maintaining safe working conditions. Understanding OSHA's role is crucial for medical technologists, who often work in environments where safety standards must be upheld rigorously to protect both staff and patients. The other agencies mentioned, while important in their own right, have different areas of focus. The Environmental Protection Agency (EPA) primarily deals with environmental protection and regulations concerning air, water, and land. The Nuclear Regulatory Commission (NRC) oversees the safe use of radioactive materials and nuclear energy, while the Department of Health and Human Services (HHS) addresses public health and welfare but does not focus specifically on occupational safety regulations.

2. What is the A/G ratio if the total protein is 7.2 g/dL with Albumin 3.8 g/dL and other fractions totaling 3.4 g/dL?

A. 1.0

B. 1.1

C. 0.9

D. 1.25

To find the A/G ratio, which stands for Albumin to Globulin ratio, we first need to understand the components involved. The total protein measurement includes both albumin and globulin proteins. In this case: - Total protein = 7.2 g/dL - Albumin = 3.8 g/dL - Globulin is calculated by subtracting albumin from the total protein: Globulin = Total protein - Albumin = 7.2 g/dL - 3.8 g/dL = 3.4 g/dL. Now, the A/G ratio is determined by dividing the albumin value by the globulin value. Using the values provided: A/G ratio = Albumin / Globulin = 3.8 g/dL / 3.4 g/dL. Calculating this gives: A/G ratio = $3.8 / 3.4 \approx 1.118$. When rounded, this value falls closest to 1.1, making this the correct answer. The A/G ratio helps in the evaluation of various conditions, such as liver disease and nephrotic syndrome, as it reflects the balance between the two major classes of proteins in the blood

3. Which document is not required to be kept in the employee's personnel records?

- A. Job competency training checklist
- B. Continuing education documents**
- C. Remedial action documentation
- D. Annual performance appraisal

The correct choice indicates that continuing education documents are not required to be maintained in an employee's personnel records. While continuous education is essential for professionals to stay up-to-date with the latest practices and standards in their field, it is often not mandated as part of the official personnel file. Instead, employers may encourage or require ongoing education but may not specifically need to document these activities within the personnel records. On the other hand, elements such as job competency training checklists, remedial action documentation, and annual performance appraisals are critical in tracking an employee's professional development, performance assessments, and any corrective measures taken. These documents serve to maintain a clear record of the employee's qualifications, conduct, and performance over time, forming an essential part of their professional profile within the organization. In summary, while continuing education is vital, it does not typically necessitate formal retention in personnel files like the other documents listed.

4. Which agency is responsible for enforcing equal pay for equal work?

- A. Fair Labor Standards Act (FLSA)**
- B. Office of Personnel Management (OPM)
- C. National Labor Relations Board (NLRB)
- D. Equal Employment Opportunity Commission (EEOC)

The Fair Labor Standards Act (FLSA) is crucial in establishing standards for wages and overtime pay, aiming to ensure that employees receive fair compensation for their work. However, while the FLSA addresses minimum wage and overtime issues, it does not specifically target equal pay for equal work. The responsibility for enforcing equal pay specifically falls under the jurisdiction of the Equal Employment Opportunity Commission (EEOC). The EEOC is charged with enforcing federal laws regarding discrimination in the workplace, which includes enforcing the Equal Pay Act of 1963 that mandates equal pay for men and women performing equal work in the same establishment. Understanding the roles of these agencies is essential for grasping how labor laws and regulations function. The Office of Personnel Management (OPM) primarily oversees federal employment policies, while the National Labor Relations Board (NLRB) handles issues related to labor relations and collective bargaining rather than directly addressing wage equality.

5. What is the typical outcome of a positive blood culture?

- A. Indication of healthy immune response
- B. Detection of a potential infection**
- C. Confirmation of a recent vaccination
- D. Assessment of blood clotting ability

A positive blood culture is primarily used to identify the presence of microorganisms, such as bacteria or fungi, in the bloodstream, which indicates a potential infection. When a blood culture comes back positive, it signifies that pathogens are present, which could lead to serious health complications if not treated appropriately. This outcome is critical as it helps healthcare providers to diagnose infections, determine their severity, and select appropriate antimicrobial therapies. The other options do not align with the implications of a positive blood culture. A positive result does not indicate a healthy immune response, as it instead points toward the immune system responding to an infection. It also does not confirm a recent vaccination, which is assessed through different immunological tests, and it is not an assessment of blood clotting ability, which is evaluated through other specific tests such as PT or aPTT. Thus, option B accurately reflects the clinical significance of a positive blood culture in the context of diagnosing infections.

6. What is the function of thrombocytes?

- A. To carry oxygen throughout the body
- B. To assist in blood clotting and repair of blood vessels**
- C. To produce antibodies
- D. To transport nutrients

Thrombocytes, also known as platelets, play a critical role in the process of hemostasis, which is the stopping of bleeding. Their primary function is to assist in blood clotting and the repair of blood vessels. When a blood vessel is injured, thrombocytes aggregate at the site of the injury and adhere to the exposed collagen in the vessel wall. They then release chemical signals that promote further aggregation and attract more platelets. This forms a temporary "platelet plug" that helps to halt bleeding. In addition to forming this plug, thrombocytes also contain granules filled with substances that facilitate the healing process, such as growth factors. These factors are important for tissue repair and regeneration. Thus, the contribution of thrombocytes is essential for maintaining hemostasis and ensuring that any breaches in the vascular system are promptly sealed. The other options relate to functions carried out by different components of the blood or the immune system. For instance, red blood cells are responsible for carrying oxygen throughout the body, while white blood cells, particularly B cells, are involved in producing antibodies for immune responses. Nutrient transport is primarily handled by plasma in conjunction with red blood cells. Understanding the distinct roles of these blood components is crucial for grasping the complex functions

7. What is required for legal blood alcohol, pre-employment drug screening, and paternity testing to ensure integrity?

- A. Chain of custody**
- B. Verbal consent
- C. Diagnostic approval
- D. Laboratory accreditation

The integrity of legal blood alcohol levels, pre-employment drug screenings, and paternity testing is critically dependent on maintaining a chain of custody. The chain of custody is a procedural framework that ensures any evidence collected, such as biological samples, is properly documented from the point of collection through to testing and reporting. This comprehensive tracking prevents any tampering, contamination, or misidentification of samples, which is essential in legal contexts where the results may have significant implications. For legal scenarios, maintaining a clear and documented path of who handled the sample and how it was stored assures that the findings are credible and can withstand scrutiny in courts or other legal situations. The steps in the chain of custody involve labeling samples, keeping secure storage, and meticulous documentation at every stage of testing. While verbal consent, diagnostic approval, and laboratory accreditation are important components of medical and testing procedures, they do not directly address the specific need for ensuring that the sample remains untampered from collection to analysis, which is key for the legal validity of the test results.

8. If the mean for BUN is 18.0 and one standard deviation is 0.15, what is the acceptable range for this control?

- A. 16.5-17.5 mg/dL
- B. 17.7-18.3 mg/dL**
- C. 18.0-19.0 mg/dL
- D. 17.0-17.5 mg/dL

The acceptable range for a control is typically calculated by taking the mean and adding and subtracting the standard deviation. In this case, the mean for BUN is 18.0 mg/dL with a standard deviation of 0.15 mg/dL. To find the acceptable range, you would calculate: - The lower limit: $18.0 - 0.15 = 17.85$ mg/dL - The upper limit: $18.0 + 0.15 = 18.15$ mg/dL This means the acceptable range is from 17.85 mg/dL to 18.15 mg/dL. However, to find a rounded range that aligns with the closest options given, you look for the range that encompasses these limits. The option that best reflects this calculated range is the one that includes numbers slightly above and below the mean while still maintaining the concept of being within one standard deviation. The range 17.7-18.3 mg/dL sufficiently encompasses the calculated limits of 17.85 and 18.15 mg/dL, thus being the most appropriate choice among the given options. This approach clearly emphasizes the concept of using the mean and standard deviation to determine acceptable ranges

9. What can elevated liver enzymes in a blood test indicate?

- A. High cholesterol levels.
- B. Possible liver damage or disease.**
- C. Kidney dysfunction.
- D. Anemia.

Elevated liver enzymes in a blood test can indicate possible liver damage or disease because these enzymes are released into the bloodstream when liver cells are injured or inflamed. The most commonly measured enzymes in this context are alanine aminotransferase (ALT) and aspartate aminotransferase (AST). High levels of these enzymes often suggest that the liver is not functioning properly, which could be due to various conditions such as hepatitis, fatty liver disease, or cirrhosis. Choosing this answer reflects an understanding of how the liver's health can be assessed through biochemical markers in the blood. While other conditions such as high cholesterol, kidney dysfunction, and anemia are significant health concerns, they are not directly related to elevated liver enzyme levels, making them less relevant in this context. Elevated liver enzymes are specifically associated with liver health, making the identification of liver damage or disease the most appropriate interpretation when such elevations are noted.

10. What is indicated by a high A/G ratio?

- A. Kidney dysfunction
- B. Excessive protein loss
- C. High protein intake**
- D. Immune system issues

A high albumin-to-globulin (A/G) ratio typically indicates a condition related to protein levels in the body, particularly pointing to high protein intake relative to globulin levels. The albumin is a type of protein made by the liver, and globulins are a group of proteins in the blood that play various roles, including in immune function. When there is an increase in albumin or a decrease in globulin, the A/G ratio rises. This can be seen in conditions where there is an abundance of protein from dietary sources or a situation where globulin levels are diminished due to specific health conditions. While a high A/G ratio may imply issues related to liver function or other disorders, it is primarily indicative of high protein intake or a relative deficiency of globulins. The other options suggest conditions that would typically result in a low A/G ratio rather than a high one. Kidney dysfunction and excessive protein loss usually lead to lower albumin levels and thus a decreased A/G ratio. Immune system issues might also be associated with increased globulin production (due to antibodies), reducing the A/G ratio. Therefore, high protein intake is the most accurate indication of a high A/G ratio.

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://aabmtbasicknowledge.examzify.com>

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

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