

BLOOD, IMMUNE, AND HEMATOLOGIC DISORDERS PRACTICE TEST (SAMPLE)

STUDY GUIDE



**SAMPLE STUDY GUIDE
WITH LIMITED QUESTIONS**

**VISIT US ONLINE FOR
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 of the following are roles of the liver in coagulation?**
 - A. Produces thrombopoietin and clotting factors, and removes old platelets
 - B. Produces insulin and glucagon
 - C. Stores bile
 - D. Filters glucose
- 2. Reed-Sternberg cells serve primarily as a diagnostic marker for which condition?**
 - A. Hodgkin's Lymphoma
 - B. Non-Hodgkin's Lymphoma
 - C. Chronic Lymphocytic Leukemia
 - D. Waldenström's macroglobulinemia
- 3. Which imaging modalities are commonly used in lymphoma staging?**
 - A. CT scans and PET scans
 - B. X-ray only
 - C. Ultrasound only
 - D. MRI of the brain only
- 4. What is anemia?**
 - A. A condition characterized by reduced RBCs and hemoglobin concentration
 - B. A condition with high RBC count
 - C. A condition with elevated hematocrit
 - D. A condition with low plasma proteins
- 5. What provides definitive histologic confirmation of lymphoma?**
 - A. Lymph node biopsy
 - B. CBC
 - C. Electrolytes
 - D. CT scan
- 6. For minor bleeds in hemophilia, which therapy is commonly used?**
 - A. DDAVP
 - B. Vitamin K
 - C. Heparin
 - D. Warfarin

- 7. What are common symptoms of Vitamin B12 deficiency?**
- A. Pallor, jaundice, glossitis, fatigue, weight loss, paresthesia
 - B. Weight gain and hyperactivity
 - C. Frequent headaches and blurred vision
 - D. Elevated iron and ferritin levels
- 8. IgE-mediated reactions are associated with which type of hypersensitivity?**
- A. Type I
 - B. Type II
 - C. Type III
 - D. Type IV
- 9. What is the management approach for DIC?**
- A. Treat underlying cause, administer clotting factors, and provide supportive care.
 - B. Immediate anticoagulation and no support.
 - C. Isolate patient and avoid any transfusions.
 - D. Increase platelet production with growth factors only.
- 10. HLAs help determine self vs non-self and indicate a person's tissue type. Which option correctly reflects this function?**
- A. They help determine a person's blood type.
 - B. They help determine self vs non-self and indicate a person's tissue type.
 - C. They control liver enzymes.
 - D. They are only relevant to skin grafts.

Answers

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

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Explanations

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1. Which of the following are roles of the liver in coagulation?

- A. Produces thrombopoietin and clotting factors, and removes old platelets**
- B. Produces insulin and glucagon
- C. Stores bile
- D. Filters glucose

The liver is the main source of coagulation proteins and of a hormone that drives platelet production, making it central to coagulation. It synthesizes most of the clotting factors that circulate in the blood, providing the essential components for the coagulation cascade to form a stable clot. It also produces thrombopoietin, which signals the bone marrow to make more platelets. In addition, the liver can participate in clearing aging or dysfunctional platelets, helping regulate platelet numbers. This combination directly ties the liver to both clot formation and platelet supply, which is why this option best fits the question. Insulin and glucagon come from the pancreas, not the liver. Bile is produced by the liver but is stored mainly in the gallbladder, not stored in the liver. While the liver metabolizes glucose, describing its role as "filters glucose" isn't a standard way to capture its involvement in coagulation.

2. Reed-Sternberg cells serve primarily as a diagnostic marker for which condition?

- A. Hodgkin's Lymphoma**
- B. Non-Hodgkin's Lymphoma
- C. Chronic Lymphocytic Leukemia
- D. Waldenström's macroglobulinemia

Reed-Sternberg cells are large, abnormal B cells with distinctive owl-eye-like nuclei that appear in tissue when Hodgkin lymphoma is present. Their appearance in a lymph node biopsy is the hallmark that defines classical Hodgkin lymphoma, because they are characteristic of this disease and are not a feature used to diagnose the other listed conditions. In classical Hodgkin lymphoma, these cells are often a minority among a reactive inflammatory background, yet their presence, along with the typical immunophenotype (CD30 and CD15 positivity, with weak PAX5), reliably confirms the diagnosis. This is why Hodgkin lymphoma is the best answer: Reed-Sternberg cells are diagnostic for it and are not the defining feature of non-Hodgkin's lymphoma, chronic lymphocytic leukemia, or Waldenström's macroglobulinemia, which have different cellular and immunophenotypic hallmarks.

3. Which imaging modalities are commonly used in lymphoma staging?

- A. CT scans and PET scans**
- B. X-ray only
- C. Ultrasound only
- D. MRI of the brain only

Imaging for lymphoma staging relies on both where the disease is and how metabolically active the lymphoma cells are. The combined use of CT scans and PET scans is the most informative approach. CT provides detailed anatomical maps of lymph nodes, chest, abdomen, and pelvis, showing size and involvement of nodal and extranodal sites. PET, especially when fused with CT as PET-CT, reveals areas of increased metabolic activity typical of active lymphoma, helping identify sites that may not be enlarged yet and distinguishing active disease from scar or inflammation. This combination gives a comprehensive picture of stage and helps guide treatment and assess response. Relying on X-ray alone misses deep and abdominal disease and lacks the detailed anatomy needed for staging. Ultrasound can evaluate superficial nodes and certain organs but does not provide a full-body, systemic view or metabolic information. An MRI of the brain is reserved for suspected central nervous system involvement or specific lymphoma situations, not routine staging. Therefore, CT with PET-CT stands as the standard for most lymphoma staging.

4. What is anemia?

- A. A condition characterized by reduced RBCs and hemoglobin concentration**
- B. A condition with high RBC count
- C. A condition with elevated hematocrit
- D. A condition with low plasma proteins

Anemia is a condition in which the blood's ability to carry oxygen is reduced because there are fewer red blood cells and/or less hemoglobin. Hemoglobin is the oxygen-binding protein inside red blood cells, so when RBC mass or Hb concentration falls, tissues don't receive enough oxygen, leading to common symptoms like fatigue and shortness of breath. The option describing reduced red blood cells and hemoglobin best captures this diminished oxygen-carrying capacity. The other scenarios describe different states: a high red blood cell count or high hematocrit indicates an overabundance of red cells (polycythemia), not anemia; and low plasma proteins isn't about red cell mass or hemoglobin and doesn't directly reflect the blood's oxygen-carrying capacity.

5. What provides definitive histologic confirmation of lymphoma?

- A. Lymph node biopsy**
- B. CBC
- C. Electrolytes
- D. CT scan

Definitive confirmation of lymphoma comes from analyzing tissue under the microscope. A lymph node biopsy provides actual tissue that pathologists can examine for malignant lymphoid cells and the pattern of nodal architecture. This histologic view, often paired with immunohistochemical stains (like CD20 for B cells or CD3 for T cells) and other studies, allows not only to confirm lymphoma but also to classify its subtype. Using a CBC or electrolytes tells you about blood counts or metabolic status, and imaging like a CT scan shows anatomy and disease extent, but none of these prove that lymphoma is present at the tissue level. An excisional lymph node biopsy is preferred because it preserves the architecture necessary for accurate diagnosis and subtyping, whereas fine-needle aspirates may miss important histologic details.

6. For minor bleeds in hemophilia, which therapy is commonly used?

- A. DDAVP**
- B. Vitamin K
- C. Heparin
- D. Warfarin

Desmopressin is used for minor bleeds in mild hemophilia because it stimulates the release of stored factor VIII and von Willebrand factor from endothelial cells, temporarily boosting their circulating levels enough to help form a clot. This makes it a practical first-line option for mild factor VIII deficiency (hemophilia A) and some forms of von Willebrand disease, where a modest rise in these factors can stop mild bleeding. It won't help in hemophilia B, where the missing factor is IX, since desmopressin does not raise factor IX. Vitamin K addresses deficiencies of the vitamin K-dependent factors (II, VII, IX, X) and thus won't correct factor VIII deficiency. Anticoagulants like heparin or warfarin would worsen bleeding, not treat it. Desmopressin can be given IV or intranasally, with onset in about 30–60 minutes and a duration of several hours, making it a commonly used option for minor bleeds in appropriate patients.

7. What are common symptoms of Vitamin B12 deficiency?

- A. Pallor, jaundice, glossitis, fatigue, weight loss, paresthesia
- B. Weight gain and hyperactivity
- C. Frequent headaches and blurred vision
- D. Elevated iron and ferritin levels

Vitamin B12 is essential for making healthy red blood cells and for proper nerve function. When you don't have enough B12, red blood cell production becomes defective (megaloblastic anemia), which leads to pallor and fatigue from anemia. The mucous membranes can also become atrophic, causing glossitis, and appetite may decrease, contributing to weight loss. Neurologic involvement is a hallmark, with nerves misfiring and sensations like tingling or numbness (paresthesias) and sometimes more diffuse neurologic symptoms. Jaundice can occur because the defective red blood cells are broken down more rapidly in the marrow, increasing bilirubin. The listed symptoms in this case—pallor, jaundice, glossitis, fatigue, weight loss, and paresthesias—fit these patterns best. Other options describe features not characteristic of B12 deficiency: weight gain and hyperactivity are not typical; frequent headaches and blurred vision aren't classic markers of B12 shortage; elevated iron and ferritin levels point away from B12 deficiency and toward other iron-related issues.

8. IgE-mediated reactions are associated with which type of hypersensitivity?

- A. Type I
- B. Type II
- C. Type III
- D. Type IV

IgE-mediated reactions are associated with immediate hypersensitivity, also known as type I hypersensitivity. In this process, IgE antibodies bind allergens and attach to mast cells and basophils. When the allergen is encountered again, it cross-links the IgE on these cells, triggering rapid degranulation and release of mediators like histamine, leukotrienes, and prostaglandins. This leads to quick-onset symptoms such as itching, hives, nasal congestion, bronchoconstriction, and in severe cases anaphylaxis. The other hypersensitivity types involve different mechanisms: cytotoxic reactions are driven by IgG or IgM targeting cells, immune complexes form and deposit in tissues causing inflammation, and delayed-type hypersensitivity is mediated by sensitized T cells releasing cytokines.

9. What is the management approach for DIC?

- A. Treat underlying cause, administer clotting factors, and provide supportive care.**
- B. Immediate anticoagulation and no support.
- C. Isolate patient and avoid any transfusions.
- D. Increase platelet production with growth factors only.

Disseminated intravascular coagulation presents as a consumptive coagulopathy where widespread activation of clotting leads to both microthrombi and rapid depletion of platelets and coagulation factors, causing bleeding as the process exhausts the body's resources. The treatment plan focuses on stopping the trigger and replacing what's been used up, with supportive care to keep the patient stable. First, address the underlying cause, such as severe infection, obstetric emergencies, trauma, or malignancy. Halting the driver of coagulation prevents further consumption and progression of DIC. At the same time, replace depleted components to control bleeding: fresh frozen plasma provides the missing coagulation factors; platelets are transfused if there is significant thrombocytopenia with bleeding or if counts are dangerously low; cryoprecipitate may be used when fibrinogen is low. Supportive measures include maintaining hemodynamics, ensuring adequate organ perfusion, and closely monitoring coagulation studies and transfusion needs. Anticoagulation is not the default approach when bleeding is prominent, because the priority is to control consumption and bleeding by treating the trigger and replenishing factors; anticoagulation may be considered only in specific scenarios with predominant thrombosis, but not as the primary strategy.

10. HLAs help determine self vs non-self and indicate a person's tissue type. Which option correctly reflects this function?

- A. They help determine a person's blood type.
- B. They help determine self vs non-self and indicate a person's tissue type.**
- C. They control liver enzymes.
- D. They are only relevant to skin grafts.

HLAs are the human leukocyte antigens that encode surface MHC molecules, which present peptide fragments to T cells and mark cells as self. This self/non-self recognition is the cornerstone of how the immune system distinguishes belonging from foreign, and it directly informs tissue compatibility for transplantation. By comparing HLA types between donor and recipient, clinicians predict how likely a graft is to be accepted and how to minimize rejection, which is exactly what is described when saying they determine self vs non-self and indicate a person's tissue type. The other options don't fit because blood type is defined by ABO antigens on red blood cells, liver enzyme control is a metabolic/genetic regulation separate from HLA function, and HLAs matter for all transplants, not only skin grafts.

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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