Comprehensive Osteopathic Medical Licensing Examination (COMLEX) Level 2 Practice Exam (Sample)

Study Guide

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. In Huntington disease, what trinucleotide sequence is expanded?

A. CAG

B. CGG

C. CTG

D. TAC

2. What clinical manifestations are associated with Lyme neuroborreliosis?

A. Severe headaches and neck stiffness

B. Arthralgia, dysmetria, and new onset gait abnormalities

C. Fever and rash

D. Respiratory distress and cough

3. What is the most common visual defect seen in PCA stroke?

A. Homonymous hemianopia with macular sparing

B. Color blindness

C. Scotoma

D. Bitemporal hemianopia

4. What is a common electrolyte abnormality found in tumor lysis syndrome?

A. Hypokalemia

B. Hypercalcemia

C. Hyperphosphatemia

D. Normal uric acid levels

5. What is the maximum heel lift that can be accommodated inside a shoe?

A. 3.2 mm

B. 6.35 mm

C. 12.7 mm

D. 15 mm

6. What is considered a poor prognostic factor of acute lymphoblastic leukemia (ALL)?

A. Elevated white blood cell count

B. Gender of the patient

C. CSF involvement

D. Age at diagnosis

7. Which of the following conditions is associated with Behcet syndrome?

A. Uveitis

B. Aortic regurgitation

C. Pulmonary embolism

D. Diverticulitis

8. What is the classic urinary finding in multiple myeloma?

A. Increased urine phosphate

B. Glucosuria

C. Proteinuria with high albumin

D. Bence Jones proteins

9. Which of the following symptoms is included in the CRAB mnemonic for multiple myeloma?

A. Edema

B. Lymphadenopathy

C. Renal insufficiency

D. Fever

10. Which thyroid cancer is associated with radiation exposure and calcified psammoma bodies?

A. Follicular thyroid cancer

B. Medullary thyroid cancer

C. Papillary thyroid cancer

D. Anaplastic thyroid cancer

Answers

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

Explanations

1. In Huntington disease, what trinucleotide sequence is expanded?

A. CAG

B. CGG

C. CTG

D. TAC

Huntington disease is caused by the expansion of a specific trinucleotide repeat sequence in the HTT gene located on chromosome 4. The pathogenic repeat consists of cytosine-adenine-guanine (CAG) sequences. In individuals with Huntington disease, the normal range of CAG repeats is typically between 10 to 35, but in affected individuals, the number of repeats can exceed 36 and may even reach over 100, leading to the degeneration of neurons in specific brain regions. This expansion leads to the production of an abnormal form of the huntingtin protein, which aggregates and causes neuronal dysfunction and cell death. Recognizing the CAG repeat expansion is crucial for understanding the genetic basis and inheritance pattern of Huntington disease, as it follows an autosomal dominant pattern. The knowledge of this genetic alteration aids in diagnosis, genetic counseling, and research into potential therapies for the disease.

2. What clinical manifestations are associated with Lyme neuroborreliosis?

A. Severe headaches and neck stiffness

B. Arthralgia, dysmetria, and new onset gait abnormalities

C. Fever and rash

D. Respiratory distress and cough

Lyme neuroborreliosis, a neurological manifestation of Lyme disease caused by the Borrelia burgdorferi bacterium, typically presents with a variety of symptoms that affect the central nervous system. One of the hallmark features of this condition includes neurologic symptoms such as arthralgia (joint pain), dysmetria (a lack of coordination characterized by the inability to judge distances), and new onset gait abnormalities. These manifestations indicate that the infection is affecting the nervous system, particularly pathways involved in motor control and sensory perception. The presence of arthralgia suggests inflammation and potential damage in the joints, while dysmetria and gait abnormalities can imply issues with coordination, which is often a result of neuroinflammation or direct effects of the bacterium on the nervous system. Together, these symptoms indicate that Lyme disease has progressed to a point where neurological involvement is significant. In contrast, the other options describe manifestations typically associated with different diseases or infection stages. Severe headaches and neck stiffness are more suggestive of meningitis or other intracranial processes, fever and rash are often seen in the early stages of Lyme disease but not specifically in neuroborreliosis, and respiratory distress and cough would not typically be associated with Lyme neuroborreliosis

3. What is the most common visual defect seen in PCA stroke?

A. Homonymous hemianopia with macular sparing

B. Color blindness

C. Scotoma

D. Bitemporal hemianopia

The most common visual defect following a posterior cerebral artery (PCA) stroke is indeed homonymous hemianopia with macular sparing. In PCA strokes, one of the primary areas affected is the occipital lobe, which is responsible for visual processing. This damage leads to a visual field loss in the same side of both eyes, termed homonymous hemianopia. Additionally, macular sparing occurs due to the dual blood supply of the macula from both the PCA and the middle cerebral artery (MCA). This results in preservation of central vision even in the presence of hemianopia, as the macula often remains functional due to this collateral circulation. This phenomenon is particularly notable and makes it a distinctive feature in PCA strokes. Other visual defects described in the choices, such as color blindness, scotoma, and bitemporal hemianopia, are less characteristic of PCA strokes. Color blindness typically arises from genetic conditions affecting the cones in the retina and is not directly associated with stroke-related mechanisms. Scotomas refer to localized field defects and could arise from a variety of conditions but are not as commonly reported post-PCA stroke. Bitemporal hemianopia results from lesions at the optic chiasm, and while

4. What is a common electrolyte abnormality found in tumor lysis syndrome?

A. Hypokalemia

B. Hypercalcemia

C. Hyperphosphatemia

D. Normal uric acid levels

Tumor lysis syndrome (TLS) is a significant clinical condition that can occur after the treatment of certain tumors, particularly hematologic malignancies. It results from the rapid breakdown of tumor cells, leading to the release of intracellular components into the bloodstream. This release significantly alters the balance of electrolytes in the body. Hyperphosphatemia is a hallmark feature of tumor lysis syndrome. As tumor cells break down, they release large amounts of phosphate into the extracellular space, overwhelming the kidney's ability to excrete it, which results in elevated serum phosphate levels. This condition is often accompanied by other electrolyte abnormalities, such as hyperkalemia (increased potassium) and hypocalcemia (decreased calcium), due to the interplay between these electrolytes and the effects on renal function. In contrast, hypokalemia and normal uric acid levels are not characteristic of TLS. Hypokalemia would suggest a loss of potassium, which is generally not seen in this syndrome since the movement of potassium can often result in hyperkalemia. Similarly, while uric acid levels can be elevated due to the catabolism of nucleic acids from dying cells, it does not pertain to the establishing feature of electrochemical imbalance such as hyperphosphatemia.

5. What is the maximum heel lift that can be accommodated inside a shoe?

A. 3.2 mm

B. 6.35 mm

C. 12.7 mm

D. 15 mm

The maximum heel lift that can typically be accommodated inside a shoe is 6.35 mm. This limit is often guided by ergonomic and biomechanical principles that aim to maintain foot stability and comfort while avoiding undue strain on the muscles and joints. A heel lift of this amount provides enough elevation to assist with conditions such as leg length discrepancies or Achilles tendon issues while still allowing for a reasonable walking gait and weight distribution. In the context of designing or modifying footwear, exceeding this limit can lead to altered biomechanics, increased risk of injury, and discomfort. A lift greater than this may require additional adjustments to the overall shoe structure and can affect balance and movement patterns. This makes 6.35 mm a practical limit for most footwear applications to ensure effective support without compromising function.

6. What is considered a poor prognostic factor of acute lymphoblastic leukemia (ALL)?

A. Elevated white blood cell count

B. Gender of the patient

C. CSF involvement

D. Age at diagnosis

CSF involvement is indeed considered a poor prognostic factor in acute lymphoblastic leukemia (ALL). When leukemic cells are found in the cerebrospinal fluid (CSF), it indicates central nervous system (CNS) involvement, which complicates the disease's management and is associated with a higher risk of relapse. This involvement suggests a more aggressive form of the disease and typically requires additional treatment strategies, such as intrathecal chemotherapy. In contrast, while elevated white blood cell count, patient gender, and age at diagnosis can provide insight into prognosis, they do not carry the same weight as CSF involvement in terms of indicating a poor outcome. For instance, an elevated white blood cell count can have different implications depending on the overall clinical picture and the patient's response to treatment, and while certain ages (very young or older children) may correlate with prognosis, they are not as definitive in prognosticating a poor outcome as CNS involvement. Thus, CSF involvement is a critical factor to consider when assessing prognosis in ALL.

7. Which of the following conditions is associated with Behcet syndrome?

A. Uveitis

B. Aortic regurgitation

C. Pulmonary embolism

D. Diverticulitis

Behcet syndrome is a rare, chronic inflammatory condition characterized by recurrent oral and genital ulcers, as well as various systemic manifestations. One of the notable ocular complications associated with Behcet syndrome is uveitis, which refers to inflammation of the uveal tract of the eye. Uveitis can lead to serious complications, including vision loss, making it an important aspect of the disease. In the context of Behcet syndrome, uveitis can manifest as anterior uveitis (iritis) or posterior uveitis, often presenting as painful red eyes, blurred vision, and photophobia. The occurrence of uveitis in Behcet syndrome is attributed to the underlying vasculitis and autoimmune mechanisms that drive the inflammatory process affecting multiple systems, including the eyes. Other conditions listed do not have a well-established association with Behcet syndrome. While Behcet syndrome can lead to various complications and complications such as thrombosis may occur due to systemic involvement, the most classical and recognized association in this context is uveitis. Therefore, identifying uveitis as a common ocular manifestation of Behcet syndrome is consistent with its clinical presentation.

8. What is the classic urinary finding in multiple myeloma?

A. Increased urine phosphate

B. Glucosuria

C. Proteinuria with high albumin

D. Bence Jones proteins

The classic urinary finding in multiple myeloma is the presence of Bence Jones proteins, which are free light chains of immunoglobulins that are excreted in the urine. Multiple myeloma is characterized by the overproduction of abnormal plasma cells that produce monoclonal immunoglobulins. In this condition, these light chains can be released into the bloodstream and subsequently filtered by the kidneys, leading to their excretion in the urine. The detection of Bence Jones proteins is clinically significant because it can be used as a diagnostic marker for multiple myeloma. The presence of these proteins in the urine can help confirm a diagnosis, especially when correlated with other clinical findings and laboratory results, such as hypercalcemia, anemia, and skeletal lesions. Furthermore, urine protein electrophoresis or immunofixation can be utilized to identify these Bence Jones proteins specifically. In contrast, the other options do not appropriately characterize the urinary findings associated with multiple myeloma. Increased urine phosphate relates more to conditions affecting bone metabolism, glucosuria is more commonly associated with diabetes or renal glycosuria, and proteinuria with high albumin could indicate different renal pathologies such as nephrotic syndrome or glomerulonephritis, but

9. Which of the following symptoms is included in the CRAB mnemonic for multiple myeloma?

A. Edema

B. Lymphadenopathy

C. Renal insufficiency

D. Fever

The CRAB mnemonic is a helpful tool for recalling the common clinical features of multiple myeloma, which is a type of cancer that affects plasma cells in the bone marrow. Each letter in the mnemonic represents a specific symptom associated with the disease: - **C stands for hypercalcemia, - **R** for renal insufficiency, - **A** for anemia, - **B** for bone pain or lytic bone lesions. Among these, renal insufficiency is particularly significant in the context of multiple myeloma. It can result from several factors, including the deposition of light chains in the kidneys, dehydration, or the consequences of hypercalcemia. In contrast, the other symptoms listed—edema, lymphadenopathy, and fever—are not part of the CRAB mnemonic. While these may occur in the context of other conditions or complications related to multiple myeloma, they do not encapsulate the hallmark symptoms that healthcare providers specifically watch for when diagnosing and managing this disease. Renal insufficiency directly reflects a serious complication related to the myeloma's effects on the body's systems, making it a pivotal part of the mnemonic and an important consideration in clinical practice.**

10. Which thyroid cancer is associated with radiation exposure and calcified psammoma bodies?

A. Follicular thyroid cancer

B. Medullary thyroid cancer

C. Papillary thyroid cancer

D. Anaplastic thyroid cancer

Papillary thyroid cancer is indeed associated with radiation exposure, particularly from ionizing radiation, which is a well-documented risk factor for the development of this type of cancer. Patients who have undergone radiation therapy to the head and neck during childhood or for other medical reasons demonstrate a higher incidence of papillary thyroid carcinoma later in life. Additionally, papillary thyroid cancer is characterized histologically by the presence of psammoma bodies, which are calcified structures that can be observed under the microscope. These calcifications are a distinct feature of papillary thyroid carcinoma and help to differentiate it from other types of thyroid tumors. In summary, the association of papillary thyroid cancer with radiation exposure and the presence of calcified psammoma bodies serves as a hallmark for diagnosis in patients with a relevant history of radiation exposure. This combination makes papillary thyroid cancer the correct answer to the question posed.

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://comlexlevel2.examzify.com

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