NBME Form 13 Practice Test (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. **Deficiency causing dermatitis, alopecia, and taste disturbances?**

   A. Vitamin A

   B. Iron

   C. Zinc

   D. Vitamin C

2. **To differentiate ACTH-dependent from ACTH-independent Cushing syndrome, which measurement is most informative?**

   A. 24-hour urinary free cortisol

   B. Plasma ACTH concentration

   C. Serum cortisol level

   D. Dexamethasone suppression test

3. **Which peptide fragment is derived from the amyloid precursor protein and accumulates extracellularly in Alzheimer's disease?**

   A. Tau protein

   B. Prion protein

   C. Beta-amyloid (Aβ) peptide

   D. Alpha-synuclein

4. **A patient presents with bone pain, kidney dysfunction, monoclonal gammopathy, and lytic bone lesions. What is the most likely diagnosis?**

   A. Osteoporosis

   B. Multiple myeloma

   C. Osteosarcoma

   D. Leukemia

5. **In intermittent ovarian torsion due to an ovarian cyst, what is the recommended surgical management to preserve ovarian function?**

   A. Oophorectomy

   B. Laparoscopic detorsion only

   C. Ovarian cystectomy

   D. Total abdominal hysterectomy

6. Which test confirms chronic bacterial prostatitis?

- **A. Urine culture before and after prostatic massage; 10x increase diagnostic**
- **B. Serum PSA level alone**
- **C. Urine dipstick for leukocytes**
- **D. Ultrasound measurement of prostate size**

7. In Hereditary Spherocytosis, which procedure can be indicated but is not the definitive treatment?

- **A. Cerebrospinal Fluid Drainage**
- **B. Splenectomy**
- **C. Bone Marrow Transplant**
- **D. Cholecystectomy**

8. In suspected osteosarcoma, what is the recommended order of imaging studies?

- **A. MRI first**
- **B. X-rays first, followed by MRI**
- **C. CT first**
- **D. Ultrasound then CT**

9. What is a definitive treatment for bilateral renal artery stenosis causing ACE inhibitor–induced AKI?

- **A. Stop ACE inhibitors and switch to ARB**
- **B. Start dialysis**
- **C. Continue ACE inhibitors**
- **D. Angioplasty or stenting**

10. Which noninvasive test detects Helicobacter pylori infection by measuring exhaled carbon dioxide after ingestion of labeled urea?

- **A. Serology**
- **B. Stool antigen test**
- **C. Endoscopy**
- **D. Urea breath test**

Answers

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

Explanations

1. Deficiency causing dermatitis, alopecia, and taste disturbances?

A. Vitamin A

B. Iron

C. Zinc

D. Vitamin C

Zinc is essential for many enzymes and proteins involved in skin integrity, hair follicle function, and taste perception. When zinc is lacking, the skin becomes prone to inflammation and dermatitis, hair growth is impaired leading to alopecia, and taste buds don't function normally, causing taste disturbances. This combination of dermatitis, hair loss, and altered taste is classic for zinc deficiency. Other deficiencies tend to present with different dominant symptoms—for example, vitamin A deficiency affects vision and skin dryness, iron deficiency causes anemia-related features, and vitamin C deficiency leads to gum issues and poor wound healing—so they don't produce this exact triad.

2. To differentiate ACTH-dependent from ACTH-independent Cushing syndrome, which measurement is most informative?

A. 24-hour urinary free cortisol

B. Plasma ACTH concentration

C. Serum cortisol level

D. Dexamethasone suppression test

In Cushing syndrome, the crucial question is whether the excess cortisol is driven by ACTH or produced independently by the adrenals. Measuring plasma ACTH directly answers that. If ACTH is detectable (normal or elevated) despite high cortisol, the syndrome is ACTH-dependent, meaning the pituitary or an ectopic source is stimulating cortisol production. If ACTH is suppressed or very low, cortisol is coming from an adrenal source with negative feedback shutting down ACTH. The other tests don't distinguish the source as clearly. A 24-hour urine free cortisol confirms that cortisol production is increased but doesn't reveal what is driving it. Serum cortisol level alone shows elevation but not the mechanism. The dexamethasone suppression test helps differentiate pituitary from ectopic ACTH sources once ACTH is known, but it doesn't directly identify ACTH dependence versus independence as efficiently as measuring ACTH itself.

3. Which peptide fragment is derived from the amyloid precursor protein and accumulates extracellularly in Alzheimer's disease?

A. Tau protein

B. Prion protein

C. Beta-amyloid (Aβ) peptide

D. Alpha-synuclein

Beta-amyloid peptide is the fragment produced from the amyloid precursor protein and is the one that accumulates outside neurons in Alzheimer's disease. APP is a transmembrane protein; when it's cleaved by beta-secretase followed by gamma-secretase, it releases Aβ fragments, especially Aβ42, which tend to aggregate and form extracellular amyloid plaques. These plaques disrupt neuronal signaling and provoke inflammation, contributing to neurodegeneration. Other proteins listed are involved in different disease processes: tau accumulates intracellularly as neurofibrillary tangles, prion protein misfolding drives prion diseases, and alpha-synuclein forms Lewy bodies in Parkinson disease. Thus, the extracellular accumulation of beta-amyloid derived from APP is characteristic of Alzheimer's pathology.

4. A patient presents with bone pain, kidney dysfunction, monoclonal gammopathy, and lytic bone lesions. What is the most likely diagnosis?

A. Osteoporosis

B. Multiple myeloma

C. Osteosarcoma

D. Leukemia

This presentation points to a malignant plasma cell disorder that causes bone destruction and kidney injury. The combination of bone pain with lytic lesions, kidney dysfunction, and a monoclonal gammopathy is classic for multiple myeloma. Malignant plasma cells proliferate in the marrow and produce a single type of immunoglobulin (monoclonal protein), which can deposit in the kidneys as light chains and promote renal failure. In bone, these cells activate osteoclasts, leading to osteolytic lesions and persistent pain. Osteoporosis wouldn't explain a monoclonal protein or the specific kidney injury. Osteosarcoma is a primary bone tumor more common in younger patients and has distinct radiographic features, not a monoclonal spike. Leukemia can cause bone pain and systemic symptoms but typically lacks a monoclonal gammopathy with lytic bone lesions.

5. In intermittent ovarian torsion due to an ovarian cyst, what is the recommended surgical management to preserve ovarian function?

A. Oophorectomy

B. Laparoscopic detorsion only

C. Ovarian cystectomy

D. Total abdominal hysterectomy

When torsion is caused by an ovarian cyst, the goal is to relieve the twist and address the underlying lesion while preserving the ovary. Removing the cyst (ovarian cystectomy) achieves this: it eliminates the mass that predisposed the ovary to twist, reducing the chance of recurrence, and leaves the ovarian tissue intact to maintain hormonal function and fertility. If you only untwist the ovary without removing the cyst, the cyst remains as a repeating risk factor for future torsion. Conversely, removing the ovary or the uterus would unnecessarily sacrifice reproductive organs in a situation where the ovary is still viable. In a patient with intermittent torsion due to a cyst, cystectomy performed laparoscopically is the approach that best preserves ovarian function.

6. Which test confirms chronic bacterial prostatitis?

A. Urine culture before and after prostatic massage; 10x increase diagnostic

B. Serum PSA level alone

C. Urine dipstick for leukocytes

D. Ultrasound measurement of prostate size

Chronic bacterial prostatitis is diagnosed by showing that bacteria come from the prostate, which is best demonstrated by comparing urine cultures collected before and after prostatic massage. In the Meares-Stamey approach, the amount of bacteria in the urine before prostatic massage is low, but after massage it rises markedly—typically about tenfold or more. This large post-massage increase indicates the prostate is releasing bacteria into the urinary tract, confirming infection of prostatic tissue. Other options don't pinpoint prostatitis specifically. Serum PSA is a marker more relevant to cancer or other prostatic conditions, not a bacterial infection. A urine dipstick for leukocytes can indicate urinary inflammation but doesn't reveal the prostatitis source. Ultrasound measuring prostate size helps assess structural issues like enlargement or masses but not infection of the gland. So the pre- and post-massage urine cultures with a significant increase are the best way to confirm chronic bacterial prostatitis.

7. In Hereditary Spherocytosis, which procedure can be indicated but is not the definitive treatment?

A. Cerebrospinal Fluid Drainage

B. Splenectomy

C. Bone Marrow Transplant

D. Cholecystectomy

Hereditary spherocytosis involves a defect in the red cell membrane that makes RBCs easy to destroy by the spleen, so the spleen is the major site of hemolysis. Addressing that splenic destruction with splenectomy can markedly reduce hemolysis and correct anemia in many patients, making it a definitive treatment for the underlying problem—though not always curative in every case, and it carries infection risk after removal of the spleen. Pigment gallstones develop from chronic intravascular hemolysis and can cause biliary symptoms; removing the gallbladder is indicated to treat or prevent gallstone-related complications, but it does not fix the underlying RBC membrane defect. The other options do not address HS-related issues: cerebrospinal fluid drainage is unrelated, and bone marrow transplant is not a standard treatment for HS.

8. In suspected osteosarcoma, what is the recommended order of imaging studies?

A. MRI first

B. X-rays first, followed by MRI

C. CT first

D. Ultrasound then CT

Plain radiographs are the best first test when a bone tumor like osteosarcoma is suspected because they're quick, widely available, and inexpensive, and they can reveal focal bone destruction with characteristic aggressive periosteal reactions (such as sunburst patterns or Codman triangles) that raise strong suspicion for a malignant process. This initial imaging helps confirm that a lesion is present and guides subsequent, more detailed studies. After an abnormal X-ray, MRI is the study that provides the clearest picture of how far the disease has spread within the bone and into surrounding soft tissues. MRI excels at showing marrow involvement, the full extent of the intramedullary and extraosseous tumor, and the relationship to nearby nerves, vessels, and muscles, which is essential for biopsy planning and surgical approach. CT has a role, particularly for detailed assessment of cortical bone or for chest evaluation in staging, but it's not the preferred initial step. Ultrasound isn't useful for characterizing primary bone tumors.

9. What is a definitive treatment for bilateral renal artery stenosis causing ACE inhibitor–induced AKI?

A. Stop ACE inhibitors and switch to ARB

B. Start dialysis

C. Continue ACE inhibitors

D. Angioplasty or stenting

In renal artery stenosis, especially when both kidneys are affected, the kidney relies on angiotensin II to constrict the efferent arteriole and maintain glomerular filtration pressure. An ACE inhibitor blocks the formation of angiotensin II, causing dilation of the efferent arteriole, drop in intraglomerular pressure, and can precipitate AKI. The definitive way to restore renal perfusion and stabilize GFR is to relieve the stenosis with endovascular revascularization—angioplasty or stenting. Stopping ACE inhibitors or switching to an ARB may prevent further AKI but does not address the narrowed artery itself. Starting dialysis would be a treatment for established kidney failure, not a cure for the underlying stenosis. Continuing the ACE inhibitor would likely worsen the AKI. Therefore, revascularization to correct the stenosis is the most definitive therapy.

10. Which noninvasive test detects Helicobacter pylori infection by measuring exhaled carbon dioxide after ingestion of labeled urea?

A. Serology

B. Stool antigen test

C. Endoscopy

D. Urea breath test

The method hinges on the urease activity of Helicobacter pylori to reveal active infection noninvasively. After you swallow urea labeled with a carbon isotope, H. pylori in the stomach breaks it down into ammonia and carbon dioxide. The labeled CO_2 is absorbed into the bloodstream and then exhaled in the breath. Measuring the amount of labeled CO_2 in the breath tells you whether urease—and thus live bacteria—are present in the stomach. This test is also useful to confirm eradication after treatment because it directly reflects current infection. Other options have different limitations. Serology looks for antibodies and can't reliably distinguish past from current infection. Stool antigen tests detect bacterial components indicating current infection but require handling stool. Endoscopy is invasive and involves direct visualization with biopsy.

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://nbmeform13.examzify.com

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