NBME Gross Anatomy High Yield 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. **The umbilicus is located opposite which intervertebral disc level?**

   A. Disc L1/L2

   B. Disc L2/L3

   C. Disc L4/L5

   D. Disc L3/L4

2. **Nasolacrimal duct drains into which nasal meatus?**

   A. Superior meatus

   B. Inferior meatus

   C. Middle meatus

   D. Common nasal meatus

3. **The inferior extent of the pleura in the midclavicular line is at which rib?**

   A. Sixth rib

   B. Seventh rib

   C. Eighth rib

   D. Ninth rib

4. **Which structure limits the spread of ascitic fluid within the infracolic compartment?**

   A. Transverse Mesocolon

   B. Sigmoid Mesocolon

   C. Root of Mesentery

   D. Greater Omentum

5. **Remnants of the umbilical arteries in an adult are called the?**

   A. Lateral umbilical folds

   B. Medial umbilical ligaments

   C. Round ligaments

   D. Urachus

6. Locking of the knee during walking most strongly suggests which of the following injuries?

A. Anterior cruciate ligament rupture

B. Medial collateral ligament sprain

C. Patellar dislocation

D. Medial meniscus tear

7. Bony landmarks between the anal and UG triangles are the

A. Coccyx

B. Ischial spine

C. Pubic symphysis

D. Ischial tuberosities

8. Which nerve provides parasympathetic secretomotor to the submandibular gland via hitchhiking with the lingual nerve?

A. Chorda tympani

B. Glossopharyngeal

C. Greater petrosal

D. Auriculotemporal

9. Innervation of the suboccipital muscles is provided by which nerve?

A. Dorsal ramus of C2

B. Ventral ramus of C1

C. Hypoglossal nerve

D. Suboccipital nerve

10. Which muscle increases tension on the vocal cords?

A. Thyroarytenoid

B. Lateral cricoarytenoid

C. Cricothyroid

D. Posterior cricoarytenoid

Answers

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

Explanations

1. The umbilicus is located opposite which intervertebral disc level?

A. Disc L1/L2

B. Disc L2/L3

C. Disc L4/L5

D. Disc L3/L4

Landmarks on the abdomen align with underlying vertebral levels, though not perfectly. The umbilicus sits roughly opposite the L3–L4 intervertebral disc in an average adult. This happens because the spinal cord ends around L1–L2, so the lumbar spine sits closer to the skin, placing the disc between L3 and L4 directly beneath the umbilicus. This relationship is a standard reference used in anatomy for locating abdominal structures and planning procedures.

2. Nasolacrimal duct drains into which nasal meatus?

A. Superior meatus

B. Inferior meatus

C. Middle meatus

D. Common nasal meatus

Tears drain into the inferior nasal meatus. After tears are produced and travel through the lacrimal apparatus, the nasolacrimal duct carries them to the nasal cavity and opens into the inferior meatus via the nasolacrimal ostium on the lateral wall beneath the inferior concha. The inferior meatus is the space directly below the inferior nasal concha and is the only nasal meatus that receives this drainage. The middle and superior meatuses mainly receive sinus openings (like the frontal, maxillary, and posterior ethmoidal sinuses) and are not tear drainage sites. The idea of a "common nasal meatus" isn't used for this drainage pathway in standard anatomy.

3. The inferior extent of the pleura in the midclavicular line is at which rib?

A. Sixth rib

B. Seventh rib

C. Eighth rib

D. Ninth rib

The important idea is that the parietal pleura extends lower than the lung itself, forming the pleural recesses. In the front of the chest, along the midclavicular line, the pleura reaches down to about the eighth rib, whereas the lung ends around the sixth rib at that same line. So the pleural cavity sits two ribs lower than the lung border here. This is why the inferior extent of the pleura in the midclavicular line is at the eighth rib. Clinically, this difference helps define the costodiaphragmatic recess and guides procedures like thoracentesis, which avoid injuring the lung by staying within safe spaces above the lower borders.

4. Which structure limits the spread of ascitic fluid within the infracolic compartment?

A. Transverse Mesocolon

B. Sigmoid Mesocolon

C. Root of Mesentery

D. Greater Omentum

The key idea is how the peritoneal spaces are organized and what boundaries shape fluid movement within them. Infracolic space lies below the transverse mesocolon and is divided into right and left halves by the root of the mesentery, which attaches the mesentery of the small intestine to the posterior abdominal wall from near the duodenojejunal junction to the ileocecal junction. This root forms a boundary that constrains the spread of ascitic fluid within the infracolic compartment, effectively isolating the right and left infracolic spaces. The transverse mesocolon separates the supracolic from infracolic compartments, so it doesn't define the internal division within infracolic space. The sigmoid mesocolon anchors the sigmoid colon in the pelvis and isn't the barrier that limits intrafracolic spread. The greater omentum can localize some fluid and infection by obliterating spaces, but the primary structural limitation within the infracolic compartment is provided by the root of the mesentery.

5. Remnants of the umbilical arteries in an adult are called the?

A. Lateral umbilical folds

B. Medial umbilical ligaments

C. Round ligaments

D. Urachus

Remnants of the umbilical arteries are the medial umbilical ligaments. After birth, the fetal umbilical arteries occlude and persist as fibrous cords along the inner surface of the anterior abdominal wall, located in the medial umbilical folds extending from the bladder to the umbilicus. This distinguishes them from other structures: the urachus becomes the median umbilical ligament, the umbilical vein leaves the round ligament of the liver, and the lateral folds overlie the inferior epigastric vessels.

6. Locking of the knee during walking most strongly suggests which of the following injuries?

A. Anterior cruciate ligament rupture

B. Medial collateral ligament sprain

C. Patellar dislocation

D. Medial meniscus tear

Locking of the knee during walking points to a mechanical block inside the joint, most often from a torn meniscus with a fragment catching between the femur and tibia. The medial meniscus is the more commonly injured one because it is more firmly attached to the joint capsule and the MCL, making it less mobile and more susceptible to tearing with twisting and weight-bearing. When a piece of torn meniscal tissue becomes interposed in the joint, it can prevent full extension or flexion, producing a locked sensation. Other injuries like ACL rupture tend to cause instability or giving way, MCL sprain causes medial pain and laxity, and patellar dislocation causes displacement of the patella—none of which classically produce a true locking in the joint.

7. Bony landmarks between the anal and UG triangles are the

A. Coccyx

B. Ischial spine

C. Pubic symphysis

D. Ischial tuberosities

In the perineum, the two triangles—the anal triangle posteriorly and the urogenital triangle anteriorly—are separated by a line drawn between the ischial tuberosities. Those ischial tuberosities mark the boundary and serve as the key bony landmarks that lie between the two triangles. The coccyx lies far posterior to the anal triangle, the pubic symphysis forms the anterior border of the urogenital triangle, and the ischial spine is a landmark more related to structures like the pudendal nerve than to dividing the two perineal spaces.

8. Which nerve provides parasympathetic secretomotor to the submandibular gland via hitchhiking with the lingual nerve?

A. Chorda tympani

B. Glossopharyngeal

C. Greater petrosal

D. Auriculotemporal

Parasympathetic secretomotor to the submandibular gland comes from preganglionic fibers traveling with the chorda tympani, a branch of the facial nerve. These parasympathetic fibers join the lingual nerve in the infratemporal region and synapse in the submandibular ganglion. After synapsing, the postganglionic fibers hitchhike along the lingual nerve to reach the submandibular (and sublingual) glands, stimulating saliva production. Other pathways—such as the greater petrosal nerve to the pterygopalatine ganglion for lacrimal/nasal mucosa, or the auriculotemporal route for the parotid via the otic ganglion—don't supply the submandibular gland via hitchhiking with the lingual nerve.

9. Innervation of the suboccipital muscles is provided by which nerve?

A. Dorsal ramus of C2

B. Ventral ramus of C1

C. Hypoglossal nerve

D. Suboccipital nerve

Suboccipital muscles are innervated by the first cervical nerve's dorsal ramus, the suboccipital nerve. This branch is primarily motor and supplies the deep neck muscles—rectus capitis posterior major and minor, and obliquus capitis superior and inferior. The dorsal ramus of C2 (greater occipital nerve) is sensory, providing cutaneous innervation to the posterior scalp rather than motor to these muscles. The hypoglossal nerve innervates tongue muscles, and the ventral ramus of C1 does not carry the motor innervation to the suboccipital group.

10. Which muscle increases tension on the vocal cords?

A. Thyroarytenoid

B. Lateral cricoarytenoid

C. Cricothyroid

D. Posterior cricoarytenoid

The muscle that increases tension on the vocal cords is the cricothyroid. It works by tilting the thyroid cartilage forward relative to the cricoid, which lengthens the vocal folds. Longer, stretched vocal cords become taut, increasing tension and raising pitch. Other muscles have different roles: the thyroarytenoid relaxes and shortens the vocal cords, reducing tension; the lateral cricoarytenoid adducts the vocal folds (brings them together); and the posterior cricoarytenoid abducts the vocal folds (opens the glottis).

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://nbmegrossanatomyhighyield.examzify.com

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