

# NURS 3100 Exam 1 Practice (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**

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- 1. How will the Human Genome Project impact future pharmacological therapies according to nursing instructors?**
  - A. We will be able to alter genes so drugs won't be needed**
  - B. It will help individualize drug therapy more effectively**
  - C. It will standardize drug doses to make prescribing easier**
  - D. It will help prevent disease through gene manipulation**
- 2. A nurse is observing a student nurse administer an intramuscular injection in the deltoid muscle. The nurse should intervene if the student nurse does which of the following?**
  - A. Inserts the needle at a 45 degree angle with the skin.**
  - B. Locates the site by putting the heel of the hand on the greater trochanter.**
  - C. Plans to administer 2 mL in a single injection.**
  - D. Selects a 1" 23-gauge needle and 3mL syringe.**
- 3. How should the nurse document muscle tremors that develop in a client after a drug is withdrawn?**
  - A. an adverse effect**
  - B. an expected therapeutic effect of no longer taking the drug**
  - C. assessment finding associated with physical dependence on a drug**
  - D. evidence that the client had psychological dependence on the drug**
- 4. A client prescribed a loading dose followed by a lower maintenance dose asks why the maintenance dose is lower. How should the nurse respond?**
  - A. The initial dose shortens the half-life, so the medication would work more quickly**
  - B. We always give medications this way; the healthcare provider did not make a mistake**
  - C. Giving a larger dose initially will reduce the chance of side effects**
  - D. You had a larger dose initially so that the medication would work more quickly**

**5. If a breastfeeding client asks about the risks of an OTC drug, what should the nurse assess? (Select all that apply)**

- A. The price of the drug**
- B. The newborn's weight**
- C. The frequency of breastfeeding**
- D. The drug's risk-to-benefit ratio**
- E. The primary method of drug administration**

**6. Which statement is accurate regarding the safety of Drug X, Y, and Z based on their therapeutic index values?**

- A. Drug Z is the safest of the three**
- B. Drugs X and Y are safer than drug Z**
- C. The therapeutic index of drug X is 20**
- D. Drug Y is the safest of the three**

**7. The nurse is preparing to administer a medication to a client on a medical-surgical unit. The median lethal dose of the drug is 40 mg, and the median effective dose of the drug is 10 mg. What is the therapeutic index?**

- A. 4**
- B. 3**
- C. 2**
- D. 5**

**8. What is the likely result when an elderly patient doubles their dose of pain medication?**

- A. The patient develops tolerance and will need an increased dose of the drug**
- B. The patient develops tolerance and does not experience any difference**
- C. The patient is more likely to exhibit side effects from the additional dose**
- D. The patient experiences more pain relief from the additional dose**

**9. In the context of drug administration, what is the primary responsibility of a nurse?**

- A. Ensuring the cost-effectiveness of the medication**
- B. Understanding the medication's reason for prescription**
- C. Verifying the pharmacy's supply method**
- D. Knowing the patient's insurance details**

**10. Which phase involves testing a drug on a large number of patients to evaluate its effectiveness and monitor for adverse effects compared to existing treatments?**

- A. Clinical Phase 1**
- B. Clinical Phase 2**
- C. Clinical Phase 3**
- D. Preclinical Investigation**

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## **Answers**

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

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## **Explanations**

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**1. How will the Human Genome Project impact future pharmacological therapies according to nursing instructors?**

- A. We will be able to alter genes so drugs won't be needed**
- B. It will help individualize drug therapy more effectively**
- C. It will standardize drug doses to make prescribing easier**
- D. It will help prevent disease through gene manipulation**

The Human Genome Project will impact future pharmacological therapies by helping to individualize drug therapy more effectively. By understanding each individual's unique genetic makeup, healthcare providers can tailor drug treatments to match specific genetic variations, leading to more personalized and precise medicine. This approach can potentially improve drug effectiveness and reduce the risk of adverse reactions, highlighting the importance of genetic information in optimizing drug therapy. This option is the most aligned with the goal of using genetic information to improve pharmacological treatments compared to the other options provided.

**2. A nurse is observing a student nurse administer an intramuscular injection in the deltoid muscle. The nurse should intervene if the student nurse does which of the following?**

- A. Inserts the needle at a 45 degree angle with the skin.**
- B. Locates the site by putting the heel of the hand on the greater trochanter.**
- C. Plans to administer 2 mL in a single injection.**
- D. Selects a 1" 23-gauge needle and 3mL syringe.**

The nurse should intervene if the student nurse inserts the needle at a 45-degree angle with the skin. When administering an intramuscular injection in the deltoid muscle, it is important to insert the needle at a 90-degree angle to ensure the correct deposit of the medication into the muscle tissue. Choosing a 45-degree angle may result in improper delivery of the medication and could potentially cause discomfort or other complications for the patient. Intramuscular injections in the deltoid muscle typically require a 90-degree angle for proper administration. The other options provided are not reasons for immediate intervention.

**3. How should the nurse document muscle tremors that develop in a client after a drug is withdrawn?**

- A. an adverse effect**
- B. an expected therapeutic effect of no longer taking the drug**
- C. assessment finding associated with physical dependence on a drug**
- D. evidence that the client had psychological dependence on the drug**

When documenting muscle tremors that develop in a client after a drug is withdrawn as an adverse effect, the nurse is accurately recognizing and classifying it as an unwanted or potentially harmful outcome related to the medication withdrawal. This documentation is crucial for tracking the client's response to the drug discontinuation and for providing information for the client's healthcare team to manage this adverse effect effectively. Options B, C, and D are incorrect because muscle tremors post-drug withdrawal are not expected therapeutic effects of stopping the drug, not solely associated with physical dependence, and not necessarily indicative of psychological dependence.

**4. A client prescribed a loading dose followed by a lower maintenance dose asks why the maintenance dose is lower. How should the nurse respond?**

- A. The initial dose shortens the half-life, so the medication would work more quickly**
- B. We always give medications this way; the healthcare provider did not make a mistake**
- C. Giving a larger dose initially will reduce the chance of side effects**
- D. You had a larger dose initially so that the medication would work more quickly**

The nurse should explain that the initial loading dose helps to quickly establish a therapeutic level of the medication in the body, while the lower maintenance dose helps to maintain that level. This is important because certain medications may have harmful side effects if the levels in the body are too high for a prolonged period of time. Option B is incorrect because not all medications are given with a loading dose, and it is important to provide a rationale for the prescribed regimen. Option C suggests using a larger dose as a preventative measure, which is not necessarily the case with a loading dose. Option D is also incorrect, as the initial larger dose is not given for the purpose of being more effective overall, but rather to quickly establish the therapeutic level.

**5. If a breastfeeding client asks about the risks of an OTC drug, what should the nurse assess? (Select all that apply)**

- A. The price of the drug**
- B. The newborn's weight**
- C. The frequency of breastfeeding**
- D. The drug's risk-to-benefit ratio**
- E. The primary method of drug administration**

The correct answer is option A. When a breastfeeding client asks about the risks of an over-the-counter (OTC) drug, the nurse should assess the price of the medication. Cost can be an important consideration for many individuals, as some medications can be costly and may not be affordable for everyone. By discussing the price of the drug, the nurse can support the client in making an informed decision that takes into account financial considerations. Options B, C, D, and E are not directly related to assessing the risks of an OTC drug in the context of a breastfeeding client. The newborn's weight, the frequency of breastfeeding, the drug's risk-to-benefit ratio, and the primary method of drug administration are also important factors to consider but may not be the immediate focus when a breastfeeding client asks about the risks of an OTC medication.

**6. Which statement is accurate regarding the safety of Drug X, Y, and Z based on their therapeutic index values?**

- A. Drug Z is the safest of the three**
- B. Drugs X and Y are safer than drug Z**
- C. The therapeutic index of drug X is 20**
- D. Drug Y is the safest of the three**

The therapeutic index is a measure of a drug's safety margin and is calculated by dividing the toxic dose by the therapeutic dose. A higher therapeutic index indicates a safer drug with a wider margin of safety. Therefore, if Drug Y has the highest therapeutic index among Drugs X, Y, and Z, it means that Drug Y has the widest margin of safety and is the safest option among the three drugs. Looking at the other options: - Option A states that Drug Z is the safest of the three, which is incorrect as the answer indicates Drug Y is the safest. - Option B suggests that Drugs X and Y are safer than Drug Z, but without specific therapeutic index values, we cannot make this conclusion. - Option C provides the therapeutic index value for Drug X, but since this value is not compared to the therapeutic index values of Drugs Y and Z, we cannot determine the relative safety among the three drugs.

**7. The nurse is preparing to administer a medication to a client on a medical-surgical unit. The median lethal dose of the drug is 40 mg, and the median effective dose of the drug is 10 mg. What is the therapeutic index?**

- A. 4**
- B. 3**
- C. 2**
- D. 5**

The therapeutic index is calculated by dividing the median lethal dose (40 mg) by the median effective dose (10 mg). In this case,  $40\text{ mg}/10\text{ mg} = 4$ . Therefore, the therapeutic index for this medication is 4, making option A the correct answer. Options B, C, and D are incorrect as they do not accurately reflect the calculated therapeutic index in this scenario.

**8. What is the likely result when an elderly patient doubles their dose of pain medication?**

- A. The patient develops tolerance and will need an increased dose of the drug**
- B. The patient develops tolerance and does not experience any difference**
- C. The patient is more likely to exhibit side effects from the additional dose**
- D. The patient experiences more pain relief from the additional dose**

When an elderly patient doubles their dose of pain medication, the likely result is that the patient is more likely to exhibit side effects from the additional dose. This is because as people age, their bodies may metabolize medications differently, leading to an increased risk of adverse effects or toxicity when higher doses are taken. Doubling the dose without proper medical supervision can lead to serious consequences, so it is important for elderly patients to always consult their healthcare provider before making any changes to their medication regimen. The other options are not correct because: - Option A stating that the patient develops tolerance and will need an increased dose of the drug is incorrect. The immediate concern of doubling the dose is the risk of side effects rather than tolerance. - Option B suggesting that the patient develops tolerance and does not experience any difference is also incorrect. Doubling the dose can lead to significant changes in drug effects and risks. - Option D claiming that the patient experiences more pain relief from the additional dose is incorrect as the primary concern with doubling the dose is the increased risk of side effects rather than enhanced pain relief.

**9. In the context of drug administration, what is the primary responsibility of a nurse?**

- A. Ensuring the cost-effectiveness of the medication**
- B. Understanding the medication's reason for prescription**
- C. Verifying the pharmacy's supply method**
- D. Knowing the patient's insurance details**

The primary responsibility of a nurse in drug administration is ensuring the cost-effectiveness of the medication. This involves considering the patient's financial situation and finding the most affordable yet effective treatment option. Understanding the medication's reason for prescription, verifying the pharmacy's supply method, and knowing the patient's insurance details are all important aspects of drug administration but do not take precedence over ensuring the cost-effectiveness of the medication.

**10. Which phase involves testing a drug on a large number of patients to evaluate its effectiveness and monitor for adverse effects compared to existing treatments?**

- A. Clinical Phase 1**
- B. Clinical Phase 2**
- C. Clinical Phase 3**
- D. Preclinical Investigation**

Clinical Phase 1 typically involves testing a drug for the first time in a small group of healthy volunteers to evaluate safety, dosage range, absorption, metabolism, and excretion. Clinical Phase 2 is when the drug is tested on a larger group of patients to evaluate its efficacy and side effects. Clinical Phase 3, the correct answer, involves testing the drug on a large number of patients to further evaluate effectiveness, monitor side effects, compare it to existing treatments, and collect information that will allow it to be used safely. Preclinical investigation occurs before any human testing and involves laboratory and animal studies to gather information on the drug's safety profile and potential effectiveness.

# 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](mailto:hello@examzify.com).**

**Or visit your dedicated course page for more study tools and resources:**

**<https://nurse3100exam1.examzify.com>**

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

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