Mini PTCE Practice Exam

Developed by the pharmacy educators at
www.PharmTechPros.com

This is a 33-question mini practice exam that gives you a “taste” of our full practice exam. This exam was created by instructors in pharmacy technician college programs across the country.

These instructors are pros at preparing their students to pass the pharmacy technician certification exam. Their students have achieved very high pass rates.

Just as with the actual PTCE certification exam, you may use a calculator while taking this mini practice exam.

Important Notes:

- Print out the mini exam and mark your answer on the hardcopy.
- Once you have finished the exam, use the “Answers and Study Guide” section (begins on p. 9) to see the correct answers and an explanation/rationale for each correct answer.
- The “Answers and Study Guide” section also provides you with a key to which questions belong to the different topic areas on the PTCB’s content outline. You can use this to assess areas where you are weak and study further in those areas before taking the actual certification exam.

Good luck!

The Staff at Excel Career Institute, a division of Dynamic WordWorks, Inc.
Tips for Success from the Pros: www.PharmTechPros.com

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www.pharmacytechpros.com/pharm-tech-practice-exam-discount.html
1. A prescriber has ordered 240 g of nystatin, diphenhydramine, and 2.5% hydrocortisone creams in equal parts. How many grams of hydrocortisone cream are needed for the order?

- A) 6 g
- B) 8 g
- C) 60 g
- D) 80 g

2. The organ that performs the most drug metabolism is the:

- A) kidney.
- B) liver.
- C) brain.
- D) small intestine.

3. A pharmacy technician is preparing a hazardous drug and spills some on the counter. Before cleaning the spill, the technician should consult:

- A) the Physician's Desk Reference (PDR).
- B) the manufacturer of the drug.
- C) the MSDS for the drug.
- D) reliable internet sources.

4. How often should a patient profile be updated?

- A) biweekly
- B) monthly
- C) annually
- D) each time a prescription is filled

5. How many milligrams are in a 10-grain aspirin tablet?

- A) 325 mg
- B) 500 mg
- C) 650 mg
6. The pharmacy technician receives a prescription for Cardizem that has "DAW" written on the prescription. What does "DAW" indicate?

- A) A generic equivalent may be substituted, at the pharmacist's discretion.
- B) A generic equivalent may be substituted, but only if the patient approves the change.
- C) A generic equivalent must be substituted if it results in a cost savings for the patient.
- D) A generic equivalent may not be substituted.

7. Selective serotonin reuptake inhibitors (SSRIs) are the most frequently prescribed class of drugs for managing:

- A) depression.
- B) anxiety.
- C) pain.
- D) epilepsy.

8. A drug is dosed at 2 mg/kg every 8h. The drug is stocked in a concentration of 5 mg/mL. How many milliliters of stock solution are needed for one dose if the patient weighs 125 lb?

- A) 68.2 mL
- B) 7.57 mL
- C) 22.7 mL
- D) 50 mL

9. When dispensing liquid medications, small-neck bottles are preferred because:

- A) they better protect the medication from heat.
- B) they allow for slower pouring.
- C) they are less expensive than wide-neck bottles.
- D) they limit evaporation of volatile medications.
10. Calcium channel blockers are indicated for all of the following disorders EXCEPT:

- A) hypertension.
- B) angina.
- C) dysrhythmia.
- D) prevention of thrombosis.

11. A prescription for cyclobenzaprine 10 mg was presented to the pharmacy. The physician wants a quantity of "XC" with a sig reading "i-i tabs po bid-tid prn". What days' supply should be given for this prescription?

- A) 8 days
- B) 15 days
- C) 23 days
- D) 30 days

12. The patient is receiving a medical device that requires all potential sources of pathogens to be removed. The removal of all pathogens is called:

- A) sterilization.
- B) sanitization.
- C) disinfection.
- D) pathogenesis.

13. A prescriber ordered 250 mL of 10% sodium chloride solution. If the pharmacy stocks 23.4% and 0.9% sodium chloride solutions, how many milliliters of each strength will be needed to compound the order?

- A) 101 mL of 23.4% and 149 mL of 0.9%
- B) 101 mL of 0.9% and 149 mL of 23.4%
- C) 72 mL of 23.4% and 178 mL of 0.9%
- D) 72 mL of 0.9% and 178 mL of 23.4%
14. The pharmacy technician is filling a prescription for a drug to be administered by the buccal route. The technician knows that this drug should be:
   - A) allowed to dissolve under the tongue.
   - B) swallowed with a full glass of water.
   - C) allowed to dissolve between the cheek and gum.
   - D) rubbed on the mucosal surface of the cheek.

15. An order for 20% dextrose has been received. How many milliliters of 50% dextrose must be compounded with sterile water to make 1 L?
   - A) 286 mL
   - B) 400 mL
   - C) 600 mL
   - D) 714 mL

16. Which of the following routes of administration will result in the fastest onset of drug action?
   - A) intravenous (IV)
   - B) intramuscular (IM)
   - C) oral
   - D) subcutaneous (SC)

17. Which of the following is the most common side effect in patients taking medications by the intranasal route?
   - A) burning or stinging in the nose
   - B) frequent nosebleeds
   - C) increased coughing
   - D) loss of the sense of smell
18. A patient is filling a prescription for a medication that is a schedule II drug. "Schedule II" means that the drug:

- [ ] A) has serious adverse effects.
- [ ] B) is an experimental medication.
- [ ] C) is a controlled substance.
- [ ] D) may not be administered to children.

19. On a prescription, what information should be included after the abbreviation sig?

- [ ] A) patient name and address
- [ ] B) instructions for taking the medication
- [ ] C) prescriber signature
- [ ] D) drug dose

20. Which of the following is the best example of an herbal therapy?

- [ ] A) nitroglycerin
- [ ] B) sodium bicarbonate
- [ ] C) saw palmetto
- [ ] D) aspirin

21. The patient arrives with a prescription for Dilacor XR. The pharmacy technician understands that "XR" means that the drug:

- [ ] A) has a prolonged duration of action.
- [ ] B) is a controlled substance.
- [ ] C) must be taken once daily.
- [ ] D) should not be administered to anyone under 12 years of age.

22. The inventory amount at which a drug is automatically reordered is called the:

- [ ] A) mandatory purchase order (MPO) level.
23. What is the purpose of the patient profile obtained by the pharmacy tech?

- A) to correctly identify the patient
- B) to determine drug allergies
- C) to determine all medications taken by the patient
- D) all of these options

24. The following are all job duties of the pharmacy technician EXCEPT:

- A) destroy controlled substances with expired storage dates
- B) participate in medication error prevention programs
- C) update and maintain patient insurance information
- D) use point-of-care dispensing technology

25. Why is it necessary to obtain a listing of all concurrent medications on a patient profile?

- A) to determine if the patient can afford the medications
- B) to examine for the possibility of drug interactions
- C) to determine if the patient has allergies
- D) to determine if the patient has the mental ability to take the medications

26. The overall primary goal of inventory control is:

- A) to reduce waiting time for consumers.
- B) to meet consumer demand at the lowest possible cost.
- C) to maximize profit for the pharmacy.
- D) to deliver safe and effective pharmacy practice.
27. Which law established the Drug Enforcement Agency (DEA) to regulate the manufacturing and dispensing of controlled substances?

- A) The Harrison Narcotics Act of 1914
- B) The Public Health Service Act of 1944
- C) The Pure Food and Drugs Act of 1906
- D) The Controlled Substances Act of 1970

28. In pharmacy practice, Rx means:

- A) prescription.
- B) dose.
- C) prescriber.
- D) strength.

29. Medications may be removed from the pharmacy shelves due to a drug recall from the Food and Drug Administration (FDA). Which of the following is a common reason for a drug recall?

- A) An unacceptable number of adverse effects have been recorded.
- B) The manufacturer has decided to discontinue marketing the drug.
- C) More effective medications have been introduced.
- D) A cheaper, generic form of the drug is now available.

30. Which law was the first to require that a drug receive governmental approval before being marketed in the United States?

- A) The Pure Food and Drugs Act of 1906
- B) The Food, Drug, and Cosmetic Act of 1938
- C) The Harrison Narcotics Act of 1914
- D) The Durham-Humphrey Amendment of 1951

31. Which law was passed to speed the approval process so that new drugs could be marketed at a faster pace?
A) The Food and Drug Administration Modernization Act of 1997
B) The Orphan Drug Act of 1992
C) The Food, Drug and Cosmetic Act of 1938

32. A patient has a question for the pharmacy technician regarding the storage of a medication she has just received. To be in compliance with the Health Insurance Portability and Accountability Act (HIPAA), the pharmacy technician must:

A) obtain the answer from a pharmacist.
B) refer the patient to speak with the pharmacist in a private counseling area.
C) communicate the answer in writing by postal mail or email.
D) record the answer in the medical record of the patient.

33. A patient arrives at the pharmacy and requests a record of all prescriptions he has filled over the past 12 months. These records:

A) must be given to the patient within a reasonable time period.
B) are the property of the pharmacy, and are not given to the patient.
C) are the property of the prescriber, and are not given out by the pharmacy.
D) must be mailed to the patient within 60 days after a written request has been filed.

Now scroll down to the “Answers and Study Guide” section (starts on next page) to check your answers, get explanations for each correct answer, and to determine the areas where you require further study.

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Answers and Study Guide
for the Mini PTCE Practice Exam

Developed by the pharmacy educators at www.PharmTechPros.com

Key to Topic Categories

Use this key to determine your weak areas, so that you can study further in those areas before you take the actual certification exam.

Print this page. Then, as you check your answers against the answers on the next page, mark the questions you answered correctly within each category below. The categories with the least number of marks are the topics where you need to study more.

Remember to mark/check off the question numbers you answered correctly in the list below.

- Compounding Calculations: 1, 13, 15
- Laws and Regulations: 27, 30, 31
- Maintaining and Storing Drugs: 22, 26, 29
- Patient Profile: 4, 23, 25
- Pharmacy Calculations: 5, 8, 11
- Pharmacology: 2, 7, 10
- Pharmacy Terms: 18, 20, 21
- Prescriptions: 6, 19, 28
- Record Keeping and Communication: 24, 32, 33
- Routes of Administration: 14, 16, 17
- Safe Drug Handling: 3, 9, 12

Write in the spaces below the topics that had the least number of check marks—these are the topics where you need to study more:

____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
Answers and Explanations

1. D
   To find the number of grams for each ingredient when ordered in equal parts, divide the total weight ordered by the number of ingredients. Since there are three ingredients, you would divide the total by three: (240 g)/3 = 80 g. Although the hydrocortisone cream has a percentage strength associated with it, it has no relevance in this example.

2. B
   Liver metabolism is responsible for changing most drugs to a less active form that is more easily excreted by the kidneys.

3. C
   The Material Safety Data Sheet (MSDS) for the hazardous drug should specify what action should be taken during an accidental spillage.

4. D
   The patient profile may change often; thus, any updates to address, medications, physical condition, etc. should be noted each time the patient fills a prescription.

5. C
   Use the following conversion factor in a proportion with the number of grains you have: 1 gr = 65 mg. Using this formula: 1 gr/65 mg = 10 gr/X. Cross-multiply and divide to solve for X: X = 650 mg.

6. D
   Dispense as written (DAW) clearly means the prescriber wants the drug dispensed exactly as written, without generic substitution.

7. A
   SSRIs such as fluoxetine (Prozac) have replaced the older tricyclic antidepressants (TCAs) due to their effectiveness and favorable safety profile.

8. C
   Convert the patient's weight in pounds to kilograms by dividing by a factor of 2.2: 125 lb/2.2 = 56.82 kg. Multiply the dose by the weight to get the number of milligrams in each dose: 2 mg * 56.82 kg = 113.6 mg. Set up a proportion using the concentration of the stock vial and the milligrams needed to find the milliliters required for the dose: 5 mg/1 mL = 113.6 mg. Cross-multiply and divide to solve for
X: \( X = 22.7 \text{ mL} \). The "every 8h" is irrelevant in this problem because the problem only asked for a single dose, not the total daily dose.

9. B
Small-neck bottles permit slower pouring, which limits spillage.

10. D
Calcium channel blockers are not prescribed for thrombosis prevention: anticoagulant or antiplatelet drugs are used for this purpose.

11. B
This scenario involves converting Roman numerals to Arabic and calculating days' supply. In Roman numerals, \( X = 10 \) and \( C = 100 \). When the smaller number (\( X \)) is placed before the larger number (\( C \)), the smaller number is subtracted from the larger: \( 100 - 10 = 90 \) tablets. The physician has also written the variable dose in lowercase Roman numerals: \( i = 1 \) and \( ii = 2 \). When calculating days' supply using a variable dose or variable frequency, always use the maximum quantities for each with the following formula: quantity prescribed/(maximum dose \( \times \) maximum frequency), so \( 90 \text{ tabs}/(2 \times 3) = 15 \) days. This method ensures that a third-party payer will not reject a claim because it was refilled too soon.

12. A
Killing all pathogens on a device or other object is called sterilization. This term is sometimes used interchangeable with medical asepsis, though there are distinctions between the two terms.

13. A
Use an alligation grid (see next page) and subtract diagonally to find number of parts of each solution: 9.1 parts 23.4% and 13.4 parts 0.9%. Calculate the sum of both parts: 9.1 + 13.4 = 22.5 parts total. Divide the number of parts of 23.4% by the total number of parts, then multiply by the volume you require: 9.1 / 22.5 \( \times \) 250 mL = 101 mL. Repeat the same process for the 0.9%: 13.4 / 22.5 \( \times \) 250 = 149 mL. Therefore, the order requires 101 mL of 23.4% sodium chloride and 149 mL of 0.9% sodium chloride solutions.
14. C
Buccal medications are tablets placed between the cheek and gum.

15. B
Use an alligation grid (see below) and subtract diagonally to find number of parts of each solution: 20 parts dextrose 50% and 30 parts water. Calculate the sum of both parts: $20 + 30 = 50$ parts total. Divide the number of parts of dextrose 50% by the total number of parts, then multiply by the volume you require: $20 / 50 \times 1000 \text{ mL} = 400 \text{ mL}$ dextrose 50%. You may use a similar method to solve for the volume of water required, but it is not necessary in this problem.

16. A
The IV route is used to deliver emergency medications because drugs will have the fastest onset of action.

17. A
Intranasal medications often cause burning and stinging of the nasal mucosa; however, this side effect tends to diminish with continued use.
18. C
Schedule II medications, such as morphine, are categorized as controlled substances because they have a high potential for dependence and abuse.

19. B
Sig is the Latin word for signature, which means "write on the label"; directions for taking the medication are included in this location.

20. C
Herbal therapies are products derived from plants that are available without a prescription; saw palmetto is sometimes taken by people to treat an enlarged prostate gland.

21. A
XR, LA, XT, and SR are abbreviations that indicate that the drug has an extended duration of action.

22. C
Inventory is electronically monitored and a drug is reordered when the PAR level is reached.

23. D
An accurate patient profile is obtain to correctly identify the patient, determine any patient drug allergies, and to determine all medications the patient is taking.

24. A
The destruction of controlled substances is strictly controlled by the Drug Enforcement Agency and is beyond the scope of practice of the pharmacy technician.

25. B
The listing of all medications (both prescription and over-the-counter) assists the pharmacist in looking for potential drug-drug interactions.

26. B
The purpose of inventory management is to ensure that the drugs most needed by patients are readily available at a reasonable cost.
27. D
The Controlled Substances Act of 1970 (also called the Comprehensive Drug Abuse Prevention and Control Act) established the DEA and the five schedules for classifying abused drugs.

28. A
The abbreviation Rx, originally taken from the Latin word for recipe, now means prescription.

29. A
The FDA recalls drugs due to safety reasons: usually, the drug has been found to have unacceptable adverse effects.

30. B
Prior to the Food, Drug, and Cosmetic Act of 1938, drugs could be marketed and sold without being approved by the U.S. government.

31. A
The FDA Modernization Act was passed because the public and legislators were concerned that the FDA was too slow in approving new drugs for AIDS and cancer.

32. B
HIPAA requires that all discussions regarding medical care be conducted in privacy.

33. A
HIPAA requires the pharmacy to provide patients access to their medical records within a reasonable time period.

Now check your answers against the Key on page 9 to assess the areas where you are weak, and where you require further study.

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