

Correct answers are **HIGHLIGHTED** and **BOLD**.

Module 1: Pharmacology – Cardiovascular and Endocrine Systems

Question 1: Which of the following drug classes can be used to treat a blood pressure of 150/90 mmHg?

- A. ACE inhibitor
- B. ARB
- C. CCB
- D. All of the above**

Question 2: When elevated, which of the following can reduce the risk of death in hyperlipidemia?

- A. LDL
- B. Triglycerides
- C. HDL**
- D. All of the above

Question 3: Which of the following pairings is correct?

- A. Captopril - ARB
- B. Losartan - Loop diuretic
- C. Amlodipine - CCB**
- D. Propranolol - Potassium Sparing diuretic

Question 4: GG is a 45-year-old male who was recently diagnosed with hyperlipidemia. What is the first line treatment for GG?

- A. Atorvastatin**
- B. Niacin
- C. Fenofibrate
- D. Colesevelam

Question 5: True or False? BM is a 59-year-old female recently put on furosemide for heart failure. Furosemide will reduce the risk of death in BM.

- A. True
- B. False**

Question 6: Which of the following is a CCB that can be used for dysrhythmias?

- A. Nifedipine
- B. Digoxin
- C. Diltiazem**
- D. Metoprolol

Question 7: HF is a 63-year-old female recently diagnosed with hypothyroidism. What is the appropriate medication for HF?

- A. Levothyroxine**
- B. Ketoconazole
- C. Fludrocortisone
- D. Methimazole

Question 8: Which characteristic describes Type 1 Diabetics?

- A. Older patients
- B. Most common type of diabetes
- C. Start with medications then escalate to insulin
- D. Insulin is no longer produced at all**

Question 9: True or False? A cloudy vial of Novolog is contaminated and poses a patient safety risk.

- A. True
- B. False**

Question 10: Put the following steps in the correct order of natural disease progression:

1. ACS /AMI
 2. Plaque builds up in the arteries
 3. Excess cholesterol forms plaque
 4. Blocked blood flow to heart
 5. Ischemia or chest pain
- A. 3, 2, 5, 4, 1
 - B. 3, 2, 4, 5, 1**
 - C. 2, 3, 5, 1, 4
 - D. 4, 3, 2, 1, 5

Module 2: Pharmacology – Psychiatric, CNS and Pain Disorders

Question 1: What neurotransmitter regulates mood, attention and anxiety and also affects basic human behaviors like sexual activity and eating?

- A. Dopamine
- B. Norepinephrine
- C. Serotonin**
- D. GABA

Question 2: APAP (acetaminophen) is in many OTC and prescription products and can cause liver injury if overdosed. What is the maximum daily intake of APAP?

- A. 400 mg
- B. 1000 mg
- C. 3 g
- D. 4 g**

Question 3: GG is a 46-year-old male with history of seizures and is currently taking Keppra for treatment. Which of the following medications is contraindicated in GG?

- A. Venlafaxine
- B. Bupropion**
- C. Sertraline
- D. Mirtazapine

Question 4: Which of the following neurotransmitters is not involved in the pathophysiology of anxiety?

- A. Dopamine**
- B. Serotonin
- C. GABA
- D. Norepinephrine

Question 5: HF is a 39-year-old female recently diagnosed with anxiety. Which of the following medications should not be used “as needed” to treat her anxiety?

- A. Lorazepam
- B. Sertraline**
- C. Hydroxyzine
- D. All of the above

Question 6: TY is a 5-year-old male who was recently diagnosed with ADHD. Which of the following is first line treatment for ADHD?

- A. Guanfacine
- B. Bupropion
- C. Clonidine
- D. Methylphenidate**

Question 7: Which of the following medications is best paired with its potential issue?

- A. Antidepressants - dependence
- B. Antihistamines - abuse
- C. Benzodiazepines - diversion**
- D. Benzodiazepine receptor agonists - stimulation

Question 8: CS is a 52-year-old male with a history of seizures. He is currently experiencing dizziness, sedation, blurred vision and constipation. Which of his side effects does not correspond with seizure medications?

- A. Constipation**
- B. Sedation
- C. Dizziness
- D. Blurred vision

Question 9: VG is a 33-year-old female who suffers from migraines. Her medication profile lists lisinopril, diltiazem, alprazolam and naproxen. Which medication can be used to prevent migraines?

- A. Lisinopril
- B. Diltiazem**
- C. Alprazolam
- D. Naproxen

Question 10: True or False? It is common practice to use a mono-amine oxidase inhibitor in the treatment of Parkinson's disease.

- A. True
- B. False**

Module 3: Pharmacology – Immunology

Question 1: True or False? It is acceptable to use epinephrine in a severe type-1 hypersensitivity allergic reaction.

- A. True**
- B. False

Question 2: Which antibiotic is classified as a macrolide?

- A. Ciprofloxacin
- B. Minocycline
- C. Sulfamethoxazole and trimethoprim
- D. Azithromycin**

Question 3: True or False? Vaccine-preventable diseases are almost eradicated from my country, so there is no reason to be vaccinated.

- A. True
- B. False**

Question 4: Which vaccine-preventable disease has been linked to cervical and genital cancer?

- A. Tetanus
- B. Hepatitis B
- C. Human Papillomavirus**
- D. Rotavirus

Question 5: True or False? The only rescue medication for asthma is a short acting beta agonist.

- A. True**
- B. False

Question 6: Which agent is correctly matched with its class?

- A. Salmeterol - SABA
- B. Albuterol - LABA
- C. Montelukast - anticholinergic
- D. Budesonide - ICS**

Question 7: Which of the following is not an allergy trigger?

- A. Pet dander
- B. Mold
- C. Pollution**
- D. Roach droppings

Question 8: ZW is a 15-year-old male who has been feeling ill for the last few days. His symptoms are lightheadedness, sore throat, cough, fever and body aches. Which of his symptoms is not commonly experienced with the common cold?

- A. Fever
- B. Body aches
- C. Sore throat
- D. Lightheadedness**

Question 9: A patient brings a prescription for Omnicef to the pharmacy. You take the prescription and begin to process it. What medication should you grab off the shelf to fill the prescription?

- A. Cefdinir**
- B. Amoxicillin
- C. Clindamycin
- D. Mupirocin

Question 10: Which of the following is not a vaccine route of administration in a pharmacy?

- A. Intramuscular
- B. Subcutaneous
- C. Intranasal
- D. Epidural**

Module 4: Pharmacology – Hepatic, Renal, Digestive, and Reproductive Systems

Question 1: GG is a 32-year-old alcoholic with liver disease. He is experiencing nausea, vomiting, jaundice and upper left quadrant pain. Which of GG's symptoms is not consistent with his diagnosis?

- A. Nausea
- B. Vomiting
- C. Jaundice
- D. Upper left quadrant pain**

Question 2: True or False? Nadolol is commonly used for portal hypertension and should be titrated to a heart rate of 45-55 beats per minute.

- A. True
- B. False**

Question 3: BM is a 36-year-old male with a history of liver disease. He presents to the hospital with hepatic encephalopathy. What is the first line treatment for BM?

- A. Lactulose**
- B. Rifaximin
- C. Zinc
- D. Metronidazole

Question 4: Which is a common cause of acute kidney injury (AKI)?

- A. Furosemide
- B. Acetaminophen
- C. Ibuprofen**
- D. Amlodipine

Question 5: HF is a 31-year-old female with a history of chronic kidney disease (CKD). She is receiving dialysis today at the clinic. Which of the following is not commonly associated with CKD?

- A. Liver failure**
- B. Anemia
- C. Hyperkalemia
- D. Metabolic acidosis

Question 6: Which of the following is not an alarm symptom of GERD?

- A. Painful swallowing
- B. Bleeding
- C. Weight loss
- D. Acid taste in mouth**

Question 7: True or False? Proton pump inhibitors, like omeprazole, should be used for quick relief of heartburn.

- A. True
- B. False**

Question 8: SP is an 18-year-old female with questions about sex. She has recently become sexually active and came to the pharmacy wanting to know a safe and effective way to avoid pregnancy and sexually transmitted diseases. Which of the following is a safe and effective means of contraception while protecting SP from sexually transmitted diseases?

- A. Male condoms**
- B. Progestin tablets
- C. Levonorgestrel
- D. Pull-out-method

Question 9: During menopause which hormone is responsible for mood changes and vaginal dryness?

- A. Luteinizing hormone
- B. Estrogen**
- C. Testosterone
- D. Progesterone

Question 10: True or False? Women and children do not need to worry about coming in contact with replacement testosterone as it is safe.

- A. True
- B. False**

Module 5: Medication Order Entry and Fill Process

Question 1: Which of the following is an acceptable way to receive a prescription for a controlled substance in Schedule III or IV from a provider?

- A. Written
- B. Telephone
- C. Fax
- D. All of the above are acceptable**

Question 2: Which of the following pairings of medication schedule and expiration time is correct?

- A. Non-controlled substance - 24 months
- B. Schedule 5 controlled substance - 9 months
- C. Schedule 2 controlled substance - 90 days**
- D. Schedule 3 controlled substance - 120 days

Question 3: True or False? Some medications cannot be handled by women who are of childbearing age.

- A. True**
- B. False

Question 4: Which of the following is not required to be on the prescription label?

- A. Patient's name
- B. Pharmacy's phone number**
- C. Address of the pharmacy
- D. Name of manufacturer or supplier

Question 5: A "packaging system" is defined as the portion of the packaging components that both contain and protect the article. This only includes primary packaging components.

- A. True
- B. False**

Question 6: True or False? A secondary packaging component is not in direct contact with the article but facilitates the handling and transport in order to protect it from damage.

- A. True
- B. False**

Question 7: Which of the following must be present on a prescription for it to be valid?

- A. Drug name
- B. Provider name
- C. DEA number
- D. All of the above**

Question 8: Which of the following can an insurance company limit?

- A. Days supply
- B. Number of refills
- C. Early refills
- D. All of the above**

Question 9: True or False? Insurance companies can dictate which pharmacies their customers can utilize.

- A. True**
- B. False

Question 10: True or False? A prescription is good for at least one year after it is dispensed into a non-stock bottle.

- A. True
- B. False**

Module 6: Sterile and Non-sterile Compounding

Question 1: True or False? Compounding is on a patient specific basis, whereas manufacturing is for general sale.

- A. True**
- B. False

Question 2: Which of the following preparations is not required to be sterile?

- A. Intravenous medications
- B. Otic drops
- C. Ophthalmic drops
- D. Capsules**

Question 3: True or False? The USP writes and enforces the pharmacy standards.

- A. True
- B. False**

Question 4: Aseptic technique protects patients from which of the following?

- A. Microbes
- B. Microbial components
- C. Contaminants
- D. All of the above**

Question 5: True or False? As the gauge of a needle increases, the diameter also increases.

- A. True
- B. False**

Question 6: Which of the following should be done prior to sterile compounding?

- A. Putting your wedding ring on
- B. Taking your shoes off
- C. Wash your face for 30 seconds
- D. Put on face/eye mask**

Question 7: True or False? For compounding of chemotherapy, the same protective equipment for non-chemotherapy compounding can be used.

- A. True
- B. False**

Question 8: Which should you consult prior to compounding a cream?

- A. USP 797
- B. USP 795
- C. Master Formulation Record**
- D. None of the above

Question 9: True or False? You can compound an ointment right after lunch, without washing your hands.

- A. True
- B. False**

Question 10: Which of the following must be documented in the compounding record?

- A. Lot number
- B. BUD
- C. Duplicate label
- D. All of the above**

Module 7: Medication Safety

Question 1: True or False? One person dies every hour because of a medication error.

- A. True**
- B. False

Question 2: A “near miss” is which of the following?

- A. Proactive.
- B. Reactive.
- C. Retrospective.
- D. Two of the above**
- E. All of the above

Question 3: “Failure mode effect analysis” is which of the following?

- A. Proactive
- B. A way to examine processes, potential failures and possible effects
- C. An analysis that takes place before an error happens
- D. All of the above**

Question 4: Which of the following is part of the “five rights” of medication safety?

- A. Patient
- B. Drug
- C. Route
- D. Dose
- E. All of the above**

Question 5: Which of the following is an example of a technical error?

- A. Difference in strength
- B. Failure to counsel when necessary
- C. Not including important auxiliary labels
- D. A and C**
- E. B and C

Question 6: Which of the following are ways to avoid look-alike/sound-alike medication errors?

- A. Include both brand and generic names on prescriptions**
- B. Use abbreviations
- C. Group medications on shelves
- D. None of the above

Question 7: Misuse of zeros can lead to medication errors. Which of the following is the correct use of zeroes?

- A. 00.01 grams
- B. 1.0 grams
- C. 0.01 grams**
- D. 0.10 grams

Question 8: Which patient parameter can cause a miscalculation in dosing?

- A. Age
- B. Kidney function
- C. Weight
- D. All of the above**

Question 9: Which of the following factors can increase medication errors?

- A. Death in the family of the healthcare provider
- B. Abbreviations
- C. Loud music in the pharmacy
- D. All of the above**

Question 10: Which of the following is an appropriate abbreviation?

- A. QD
- B. AS
- C. U
- D. OS
- E. None of the above**

Module 8: Pharmacy Quality Assurance

Question 1: Which of the following are quality assurance practices?

- A. NDC number
- B. Bar coding
- C. Data entry
- D. All of the above**

Question 2: In the NDC 10987-6543-21, which pairing is correct?

- A. 21 - manufacturer
- B. 6543 - package size
- C. 10987 - drug name and strength
- D. None of the above**

Question 3: Which of the following is not included in personal protective equipment?

- A. Gloves
- B. Eye protection
- C. Needle caps**
- D. Masks

Question 4: True or False? You should recap needles prior to disposal.

- A. True
- B. False**

Question 5: True or False? Root Cause Analysis (RCA) and Failure Mode and Effect Analysis (FMEA) differ in that FMEA is retrospective and RCA is prospective.

- A. True
- B. False**

Question 6: Which of the following are reasons for a drug to be recalled?

- A. Insufficient potency
- B. Contamination
- C. Device malfunctions
- D. All of the above**

Question 7: Of the three classes of product recalls, which is the most serious?

- A. Class I**
- B. Class II
- C. Class III
- D. They are all equal

Question 8: What organization is responsible for maintaining the drug shortage list?

- A. FDA**
- B. ISMP
- C. ASHP
- D. State organizations

Question 9: Which of the following is a clinical quality measure?

- A. Health outcomes
- B. Safety
- C. Patient engagement
- D. All of the above**

Question 10: True or False? Well-implemented safety programs do not blame a person for an error.

- A. True**
- B. False

Module 9: Pharmacy Information Systems Usage and Application

Question 1: Which of the following is not a requirement of OBRA '90?

- A. Name
- B. Address
- C. Social security number**
- D. Gender

Question 2: True or False? OBRA '90 does not require you to input a patient's significant allergy.

- A. True
- B. False**

Question 3: GG is a 14-year-old male with a history of ADHD. His mother brings in a prescription for him written for Adderall XR 30mg (a CII). What information is needed for GG's profile to process the prescription and utilize MAPS?

- A. Mother's social security number
- B. GG's driver's license number
- C. GG's social security number
- D. No additional information, just enter zeros**

Question 4: Which of the following is needed for an outpatient medication profile?

- A. Prescription number
- B. Original Date
- C. Directions
- D. Prescriber
- E. All of the above**

Question 5: In what circumstance is using the unknown origin code acceptable?

- A. Transfer prescriptions**
- B. Fax to fax
- C. Electronic to fax
- D. Telephone

Question 6: Which of the following should be double-checked during order entry?

- A. Patient name
- B. Date of birth
- C. Drug
- D. Date written
- E. All of the above**

Question 7: True or False? An example of a common system flag is “refill too soon.”

- A. True**
- B. False

Question 8: True or False? Electronic medical records and medication administration records are the same thing.

- A. True
- B. False**

Question 9: A drug database can provide information about which of the following?

- A. Medication formulations
- B. Monitoring parameters
- C. Mechanisms of action
- D. Common adverse reactions
- E. All of the above**

Question 10: True or False? The orange book is a book with information on generic equivalency.

- A. True**
- B. False

Module 10: Pharmacy Inventory Management

Question 1: True or False? Inventory is pharmacy’s largest investment.

- A. True**
- B. False

Question 2: Which of the following is important for business efficiency?

- A. Buying the right quantity
- B. Buying from the right vendor
- C. Buying at the right time
- D. All of the above**

Question 3: A bottle of lisinopril expires on 01/2019. At what point in January does this medication actually expire?

- A. January 1st
- B. Mid-January
- C. The end of January**
- D. The third Saturday in January

Question 4: A high ITOR is associated with which of the following?

- A. Not enough product on the shelf**
- B. Too much inventory on the shelf
- C. ITOR has nothing to do with inventory

Question 5: Which of the following does not apply to the open-to-buy budget method?

- A. More financial control
- B. Utilizes a list of products that have limited supply**
- C. Does not take into account changes in price or demand
- D. Must stay within certain budget per ordering period

Question 6: True or False? A computer-based perpetual inventory is the most efficient and allows for constant monitoring.

- A. True**
- B. False

Question 7: Pareto's Law is a method for reordering that does which of the following?

- A. Tries to maximize inventory of high turnover products
- B. Cuts down need for frequent ordering
- C. Attempts to have 80% of sales come from 20% of inventory
- D. All of the above**

Question 8: True or False? Many hospitals implement a step-therapy protocol as it relates to formularies.

- A. True
- B. False**

Question 9: What does a PA (prior authorization) mean in the filling process?

- A. The pharmacist must inform the prescriber
- B. The pharmacist must inform the patient
- C. The patient may pay out of pocket
- D. The insurance will not pay until the PA is approved
- E. All of the above**

Question 10: True or False? It is important to rotate stock so that medications are not wasted.

- A. True**
- B. False

Module 11: Pharmacy Billing and Reimbursement

Question 1: True or False? In an HMO, the patient is able to see a specialist without referral.

- A. True
- B. False**

Question 2: Which of the following is true about a health savings account?

- A. A special addendum to a qualified health plan
- B. Money set aside for health costs
- C. Potential tax benefit
- D. All of the above**

Question 3: Which of the following statements about Medicare is true?

- A. It is for all ages, if diagnosed with end-stage renal disease**
- B. Part A is medical insurance
- C. Part B is hospital insurance
- D. Part C is prescription drug coverage

Question 4: True or False? The difference between fraud and abuse is intent.

- A. True**
- B. False

Question 5: Third party payer plan limitations can include which of the following?

- A. Quantity limits
- B. Copays
- C. Coinsurance
- D. Benefit exceptions
- E. All of the above**

Question 6: True or False? Home care includes intravenous medications as well as nursing services.

- A. True**
- B. False

Question 7: True or False? Long-term care includes rehabilitation for patients in need of assistance performing activities of daily living.

- A. True**
- B. False

Question 8: True or False? Home infusion billing and reimbursement is complicated by medical, pharmacy and split benefits.

- A. True**
- B. False

Question 9: Which of the following are federally funded health plans?

- A. HMO
- B. PPO
- C. Medicare**
- D. All of the above

Question 10: Which of the following is true about medication assistance programs?

- A. Based on level of financial need
- B. For branded products only
- C. Similar to coupons
- D. Available through the manufacturer
- E. All of the above**

Module 12: Pharmacy Law and Regulation

Question 1: A prescription is an order issued to a pharmacy so that a patient may obtain which of the following?

- A. An over-the-counter medication
- B. A prescription medication
- C. Both A and B**
- D. Neither A nor B

Question 2: True or False? A license is a document that allows an individual to prescribe medications.

- A. True
- B. False**

Question 3: A pharmacist authorizes a pharmacy tech to perform a task. This is an example of which of the following?

- A. Supervision
- B. Delegation**
- C. Prescribing
- D. Dictation

Question 4: True or False? Classification assigned to a controlled substance ranges from I to V, with V having the greatest potential for abuse.

- A. True
- B. False**

Question 5: Which of the following should not be on a prescription?

- A. DAW
- B. UAD**
- C. Do not fill until date
- D. Must last until date

Question 6: Which of the following can't be changed?

- A. Drug quantity
- B. Drug
- C. Patient name**
- D. Date

Question 7: Which of the following is not a licensed prescriber?

- A. Doctor of osteopathic medicine
- B. Doctor of podiatric medicine
- C. Optometrist
- D. All of the above are licensed prescribers**

Question 8: How many refills can a schedule II medication have?

- A. Zero
- B. One
- C. Six
- D. Twelve

Question 9: True or False? A prescription for a controlled substance written for a Medicaid beneficiary must be on written on a tamper-resistant form.

- A. True
- B. False

Question 10: True or False? A pharmacy is prohibited from providing a medication to a doctor for office use.

- A. True
- B. False

Module 13: Pharmacy Calculations I

Question 1: A circle is divided into ten parts, and someone took three parts. What fraction is left of the circle?

- A. $10/7$
- B. $7/10$
- C. $10/3$
- D. $3/10$

Question 2: True or False? You can add or subtract fractions without first finding common denominators.

- A. True
- B. False

Question 3: What is the sum of $1/3$ and $5/6$?

- A. $6/6$
- B. $8/6$
- C. $3/6$
- D. $7/6$

Question 4: Convert 0.4 grams into milligrams.

- A. 0.04 mg
- B. 4 mg
- C. 40 mg
- D. 400 mg
- E. 4000 mg

Question 5: What is the equivalent of 2 pt?

- A. 16 oz
- B. 360 mL
- C. 0.5 gal
- D. 946 mL**

Question 6: A prescription calls for 2mg/kg of medication, and the patient weighs 195 lbs., what is the correct dose?

- A. 429 mg
- B. 89 mg
- C. 177 mg**
- D. 211 mg

Question 7: Which of the following pairs is matched up correctly?

- A. w/v - # grams/10mL
- B. v/v - # mL/1000mL
- C. w/w - # grams/100 grams**
- D. All of the above are correct

Question 8: A prescription calls for 500 mL of 0.09% NaCl. The pharmacy has 50% NaCl available for dilution. How many mL of stock solution do you need to fill the prescription?

- A. 45 mL
- B. 0.9 mL**
- C. 0.09 mL
- D. 9 mL

Question 9: A patient is to receive 1 L of medication intravenously infused over 12 hours at a rate of 10 drops per mL. How many drips will the patient receive per minute?

- A. 13.8 drops per minute**
- B. 1.38 drops per minute
- C. 6.9 drops per minute
- D. None of the above

Question 10: A prescription calls for 120 grams of 14% hydrocortisone ointment. The pharmacy has 20% and 5% ointment in stock. How many grams of each are needed to make 120 grams of 14% hydrocortisone ointment?

- A. 1.125 grams of the 5% and 0.75 grams of the 20%
- B. 0.75 grams of the 5% and 1.125 grams of the 20%
- C. 72 grams of the 5% and 48 grams of the 20%
- D. 48 grams of the 5% and 72 grams of the 20%**