

Name: _____ Date: _____

1. Intrauterine devices (IUDs) provide long term
 - A) antiinfective therapy.
 - B) contraception protection.
 - C) slow dissolution of progesterone.
 - D) antifungal therapy

2. Which inhalation administration device will help patients coordinate inspiration and actuation?
 - A) MDI aerosol
 - B) dry powder inhaler
 - C) spacer
 - D) nebulizer

3. Drugs are administered intranasally by all of the following except:
 - A) inhaler for volatile drugs
 - B) liquid drops
 - C) mist from plastic squeeze bottle
 - D) injection

4. Ophthalmic formulations must be _____ in their final container.
 - A) sterile
 - B) colorless
 - C) liquid
 - D) pyrogenic

5. The maximum fluid volume that can be IM injected is _____ ml.
 - A) 0.1
 - B) 1
 - C) 3
 - D) 5

6. When considering subcutaneous (SC) administration, which listing is the expected order of absorption rates from fastest to slowest?
 - A) SC>IM>Oral
 - B) IM>SC>Oral
 - C) Oral>IM>SC
 - D) Oral>SC>IM

7. Injectability refers to the properties of a suspension while being _____.
A) drawn into a vial
B) injected through a needle
C) mixed with fatty acids to make an emulsion
D) dissolving a lyophilized powder with a diluent
8. Which is an “injection dependent” parenteral route of administration?
A) inhalation
B) intranasal
C) epidural
D) ophthalmic
9. Which is a disadvantage of an oral suspension formulation?
A) It can be administered to patients who cannot swallow tablets.
B) It settles over time.
C) The drug is more stable than in solution formulations.
D) It can mask objectionable tastes.
10. Which dosage form does not have a disintegration and dissolution step as part of its oral absorption process?
A) tablets
B) capsules
C) bulk powders
D) oral solution
11. The USP-NF provides beyond-use date recommendations for compounded preparations when other scientific stability information is not available. For nonaqueous formulations, what is the USP-NF recommended beyond-use date?
A) fourteen days
B) the earliest expiration date of any active principal ingredient or 6 months, whichever is earlier
C) 6 months
D) the intended duration of therapy
12. Which is the largest hard gelatin capsule size?
A) 000
B) 0
C) 1
D) 5

13. Polyethylene glycol (PEG) 8,000 would be expected to be
- A) a liquid.
 - B) a gel.
 - C) an emulsion.
 - D) a solid.
14. Which is a true statement about coloring a compounded liquid?
- A) Coloring agents are contraindicated in all sterile preparations.
 - B) Dark colored liquids are perceived as very potent.
 - C) Colorless liquids are perceived as very effective.
 - D) Flesh-toned colors are preferred for oral liquids.
15. Aqueous solutions containing high concentrations of a sugar are called
- A) syrups.
 - B) elixirs.
 - C) tinctures.
 - D) fluid extracts.
16. Geometric dilution should be used to blend
- A) a large amount of drug powder with a large amount of powder diluent.
 - B) a small amount of drug powder with a small amount of powder diluent.
 - C) a large amount of drug powder with a small amount of powder diluent.
 - D) a small amount of drug powder with a large amount of powder diluent.
17. Adapt-a-Caps® can be fitted with
- A) Slip-Tip® syringes.
 - B) Luer-Lok® syringes.
 - C) oral syringes.
 - D) calibrated pipets.
18. To ensure the accuracy of a volume dispensed with a syringe,
- A) use only Slip-Tip® syringes.
 - B) completely fill the hub.
 - C) depress the plunger to expel air bubbles.
 - D) fully submerge the tip of the syringe into the fluid when filling.

19. When selecting a device for liquid measurement,
- A) use the smallest device that will accommodate the volume of liquid.
 - B) use a larger device than is required for the volume of liquid to allow room for mixing.
 - C) use only devices marked TC.
 - D) use the appropriate size prescription bottle.
20. All suspension formulations should have the following auxiliary label on the container:
- A) Refrigeration required
 - B) Shake well before use
 - C) Keep at room temperature
 - D) For internal use only
21. Which is not considered a particulate material?
- A) cotton fibers
 - B) rubber cores
 - C) metal fragments
 - D) undissolved active drug particles
22. When a solution is free from soluble products produced by microorganisms, it is said to be
- A) sterile.
 - B) pyrogen free.
 - C) isotonic.
 - D) particle free.
23. When a drug is added to a parenteral solution, the resulting preparation is called an
- A) additive solution.
 - B) admixture solution.
 - C) additional solution.
 - D) adjuvant solution.
24. Central venous catheters or peripherally inserted central catheters (PICC) are used to administer
- A) hypertonic TPN solutions.
 - B) peritoneal dialysis solutions.
 - C) urological irrigation solutions.
 - D) SVP solutions.

25. Piggybacks are used to administer
- A) intermittent intravenous medications.
 - B) 500 ml of intravenous fluid or more.
 - C) oral feedings.
 - D) IM medications
26. For a viscous solution which gauge needle would be appropriate?
- A) 30G
 - B) 25G
 - C) 23G
 - D) 18G
27. Laminar flow hoods provide a _____ work area.
- A) sterile
 - B) stable
 - C) zone of turbulence
 - D) ultraclean
28. Flow rates of a LVP parenteral can be set by any of the following except:
- A) using a roll clamp on an administration set.
 - B) counting drops in a drip chamber.
 - C) using a controller.
 - D) an in-line filter.
29. Which gauge needle is the most likely to cause coring?
- A) 13G
 - B) 16G
 - C) 20G
 - D) 23G
30. SVP solution include all of the following except:
- A) minibags
 - B) glass vials
 - C) ampules
 - D) irrigation solutions

31. A receptor is thought of as a _____ and the drug that interacts with it as a _____ .
- A) lock, key
 - B) ball, chain
 - C) glove, hand
 - D) saucer, cup
32. A typical dose-response curve shows that the response _____ as the dose increases.
- A) decreases
 - B) increases
 - C) remains the same
 - D) plateaus
33. The _____ is the blood concentration needed to produce a response.
- A) minimum toxic concentration (MTC)
 - B) onset of action
 - C) minimum effective concentration (MEC)
 - D) therapeutic window
34. Which is not one of the ADME processes?
- A) absorption
 - B) distribution
 - C) metabolism
 - D) evacuation
35. From a blood concentration-time profile, which parameter cannot be determined?
- A) onset of action
 - B) latent action
 - C) therapeutic window
 - D) duration of action
36. In the blood concentration-time profile, the duration of action can be measured as the
- A) time between minimum effective concentration (MEC) and minimum toxic concentration (MTC).
 - B) time between dose administration and when the blood concentration first reaches the MEC.
 - C) time between dose administration and when declining blood concentrations reach the MEC.
 - D) time between when blood concentrations first reach the MEC and when the declining blood concentrations reach the MEC.

37. Half-life is the amount of time needed for blood concentrations of a drug to
- A) increase 50% of an initial value.
 - B) decline to one-half of an initial value.
 - C) decline from the MTC to one-half of the MEC.
 - D) progress from 50% the onset of action to 50% of the MEC.
38. _____ involves the movement of drugs from an area of lower concentration to higher concentration.
- A) Active diffusion
 - B) Active transport
 - C) Absorption
 - D) Passive diffusion
39. Most drugs given orally are absorbed into the blood from the
- A) small intestine.
 - B) large intestine.
 - C) stomach.
 - D) liver.
40. Gender differences in drug disposition in women can be attributed to which of the following?
- A) height/weight
 - B) bone density.
 - C) reduced muscle mass.
 - D) age.
41. In chronic renal disease,
- A) the dosage of a drug eliminated by the kidney should be decreased.
 - B) the dosage of a drug eliminated by the liver should be increased.
 - C) the dosage of a drug eliminated by the kidney should be increased.
 - D) the dosage of a drug eliminated by the liver should be decreased.
42. Drugs used as anticoagulants typically cause which adverse drug reaction?
- A) dose dependent anaphylactic shock
 - B) allergic reactions after five days
 - C) end stage renal disease
 - D) excessive bleeding

43. Which of the following is known to be a potential hepatotoxin?
- A) Oxycodone.
 - B) Acetaminophen.
 - C) Penicillin(s).
 - D) Birth control pills.
44. Calcium, iron, magnesium and aluminum salts from drugs and dietary sources can significantly decrease the absorption of tetracycline(s). How can these two drugs be given concomitantly?
- A) Have the patient take the tetracycline with a glass of milk.
 - B) Separate the administration of the two drugs by about two hours.
 - C) Give both of the drugs at the same time, but with food.
 - D) You must interrupt the other drug while taking the tetracycline.
45. A patient taking warfarin began a diet rich in green-leafy vegetables; their INR decreased 50% within a week. This is an example of the dietary vegetables:
- A) decreased the absorption of warfarin.
 - B) inhibited the anticoagulant activity.
 - C) increased the urinary excretion of warfarin.
 - D) increased the plasma protein binding of warfarin.
46. _____ occur(s) when two drugs with similar pharmacological actions produce greater effects than the sum of individual effects.
- A) Additive effects
 - B) Displacement
 - C) Inhibition
 - D) Synergism
47. Which type of pharmacy literature includes textbooks, monographs, standard reference books and review articles?
- A) secondary
 - B) abstract
 - C) primary
 - D) tertiary

48. A pharmacy technician searching for standards of practice regarding compounding sterile and non-sterile products would consult which reference book?
- A) King's Guide to Parenteral Admixtures
 - B) "Orange Book"
 - C) *PDR*
 - D) USP Pharmacist's Pharmacopeia Product Information
49. What type of pharmacy references are published frequently and provide a useful source of current information?
- A) textbooks
 - B) newsletters
 - C) handbooks
 - D) dictionaries
50. Which of the following is a principal text on pharmacology and therapeutics, emphasizing clinical pharmacy practice?
- A) AHFS Drug Information
 - B) Remington, *The Science and Practice of Pharmacy*
 - C) Goodman and Gilman's *The Pharmacological Basis of Therapeutics*
 - D) Martindale, *The Complete Drug Reference*
51. Which drug information source would the pharmacy technician check for a possible drug interaction?
- A) American Drug Index
 - B) Red Book: Pharmacy's Fundamental Reference
 - C) Remington, *The Science and Practice of Pharmacy*
 - D) Drug Facts and Comparisons
52. A MSDS provides product information on
- A) drug side effects
 - B) drug contraindications
 - C) clinical trials
 - D) protective measures for chemical exposure
53. In what drug information source would a pharmacy technician would research information needed to compound a lotion?
- A) *PDR*
 - B) The Merck Index
 - C) Drug Facts and Comparisons
 - D) Remington, *The Science and Practice of Pharmacy*

54. Which pharmacy reference would a technician use to find information concerning the dosing of a newly marketed antihypertensive?
- A) Remington, *The Science and Practice of Pharmacy*
 - B) Drug Facts and Comparisons
 - C) USP-NF
 - D) The Merck Manual
55. Where should the pharmacy technician check for a possible incompatibility of two intravenous medications?
- A) Drugdex
 - B) American Drug Index
 - C) Handbook of Injectable Drugs
 - D) *PDR*
56. A listing of goods or items that a business will use in its normal operation is called (a/an)
- A) formulary.
 - B) turnover.
 - C) inventory.
 - D) point of sale.
57. A listing of the medications that are approved for use within a system is a/an
- A) inventory.
 - B) wholesaler.
 - C) database.
 - D) formulary.
58. Businesses that purchase drugs from pharmaceutical manufacturers and resell their inventory to hospitals, pharmacies and other pharmaceutical dispensers are
- A) wholesalers.
 - B) drug manufacturers.
 - C) HMOs.
 - D) PPOs.
59. A package containing a single dose of a medication is called
- A) point of use.
 - B) unit dose packaging.
 - C) point of sale.
 - D) MSDS.

60. What should a pharmacy technician do with expired medications?
- A) Store it with the regular drug stock.
 - B) Throw it into trash.
 - C) Keep it isolated from regular stock.
 - D) Send it to a poor country.
61. Shipments of broken or damaged stock should be tracked and reported to the wholesaler or supplier
- A) immediately.
 - B) never -- it is a cost of doing business.
 - C) monthly, to consolidate transactions.
 - D) whenever possible
62. The U.S. government agency that regulates the distribution of controlled substances is the
- A) FDA.
 - B) OSHA.
 - C) DEA.
 - D) MSDS.
63. The NDC number is used by the manufacture to indicate
- A) product expiration.
 - B) product manufactured date.
 - C) code of all the ingredients.
 - D) none of the above
64. Examples of public health insurance are
- A) patient assistance programs.
 - B) Medicare and Medicaid.
 - C) health maintenance organizations.
 - D) preferred provider organizations.
65. Companies that administer drug benefit programs are called
- A) co-insurance.
 - B) patient assistance programs.
 - C) pharmacy benefit managers.
 - D) workers' relief programs.

66. A deductible represents
- A) a portion of the price of the medication that the employer is required to pay.
 - B) a portion of the price of the medication that the PBM is required to pay.
 - C) a discount that is applied to the cost of an insurance policy.
 - D) a set amount that must be paid by the patient for each benefit period before the insurer will cover additional expenses.
67. The component of Medicare that covers inpatient hospital expenses is
- A) Part A.
 - B) Part B.
 - C) Part C.
 - D) Part D.
68. The component of Medicare that covers doctors' services and other medical services that are not covered under Medicare Part A is
- A) Part B.
 - B) Part C.
 - C) Part D.
 - D) Part E.
69. The component of Medicare that covers prescription drugs is
- A) Part A.
 - B) Part B.
 - C) Part C.
 - D) Part D.
70. The type of formulary that is least restrictive is a/an
- A) closed formulary.
 - B) open formulary.
 - C) major medical formulary.
 - D) dual formulary.
71. An employer compensation program for employees accidentally injured on the job is
- A) Medicare.
 - B) Medicaid.
 - C) Workers' Compensation.
 - D) Patient Assistance Program.

72. Program(s) sponsored by pharmaceutical manufacturers to help provide medications for the needy is/are
- A) Medicare.
 - B) Medicaid.
 - C) Patient Assistance Programs.
 - D) PBMs.
73. A rejected claim for invalid person code following online adjudication of a prescription claim means
- A) the birth date or sex submitted for the claim does not match the birth date or sex for the patient code submitted (01, 02, etc.).
 - B) the refill is too soon.
 - C) the patient must use mail order.
 - D) the prescriber is not authorized by the insurer.
74. The number used to identify the drug dispensed when billing a PBM for a filled prescription is the
- A) group number.
 - B) DAW.
 - C) NPI.
 - D) NDC.
75. Another party, besides the patient or the pharmacy, that pays for some or all of the cost of a medication is called the
- A) first party.
 - B) second party.
 - C) third party.
 - D) fourth party.
76. A company that administers drug benefit programs for insurance companies or employers is a/an
- A) PBM.
 - B) HMO.
 - C) POS.
 - D) PPO.

77. The number or code on an insurance card that identifies the employer of the insured individual is the
- A) patient identification number
 - B) group number
 - C) NPI
 - D) PBM
78. The federal health insurance program for people over age 65 or people is
- A) Medicare.
 - B) Medicaid.
 - C) PBM.
 - D) NPI.
79. The process for using a computer to determine the exact coverage for a prescription with the appropriate third party is called
- A) resubmission.
 - B) online adjudication.
 - C) rejection.
 - D) PPO.
80. A list of medications that are covered by a third party program is called a
- A) tier.
 - B) MAC.
 - C) formulary.
 - D) U&C.
81. Types of community pharmacies include
- A) independent pharmacies.
 - B) nuclear pharmacies.
 - C) hospital pharmacies.
 - D) long term care pharmacies.
82. Important aspects of community pharmacy include all except:
- A) good customer service.
 - B) the ability to lie convincingly.
 - C) accuracy and efficiency.
 - D) strong interpersonal skills.

83. Medicare Part D is
- A) a federal law that dictates pharmacist to technician ratios.
 - B) a set of laws that help to protect patients' privacy.
 - C) a law that provides a drug benefit program for senior citizens.
 - D) the federal/state program to help low income families.
84. OBRA is a set of federal laws that
- A) require pseudoephedrine sales to be regulated.
 - B) provide a prescription drug plan for animals.
 - C) require pharmacists to provide counseling to Medicaid patients receiving new prescriptions.
 - D) requires technicians to be certified.
85. An appropriate place for pharmacist-patient consultation is
- A) inside the pharmacy.
 - B) on the line while the patient is waiting to pick up their prescription.
 - C) in a semi-private transaction window.
 - D) in the parking lot.
86. Refrigerator temperature is
- A) between 0 and 10 degrees Fahrenheit.
 - B) between 0 and 10 degrees Celsius.
 - C) between 2 and 8 degrees Fahrenheit.
 - D) between 2 and 8 degrees Celsius.
87. Prescription bins or shelves are usually arranged by
- A) the patient's doctor's name.
 - B) prescription number.
 - C) the patient's zip code.
 - D) the patient's last name.
88. Patient profile information includes all of the following except:
- A) patient date of birth.
 - B) patient insurance information.
 - C) names of family members
 - D) allergies

89. When entering a new prescription into the pharmacy computer system
- A) the technician should verify that they are working within the correct patient profile.
 - B) enter the correct drug and any strength that the drug comes in.
 - C) enter any number of refills that the technician thinks would be good.
 - D) a and b.
90. Every prescription is assigned a
- A) code.
 - B) color.
 - C) a prescription number.
 - D) location.
91. Hard copy prescriptions for CII's:
- A) must be filed with all prescriptions by prescription number.
 - B) must be filed separately from other prescriptions.
 - C) may be scanned and then discarded.
 - D) must be filed by date written.
92. Once a prescription has been entered into the computer system the steps involved in preparing the prescription include
- A) generating a label.
 - B) retrieving the correct medication.
 - C) counting or otherwise measuring the correct amount of drug.
 - D) all of the above.
93. The breakdown of drugs into metabolites is caused by
- A) enzyme induction.
 - B) bile.
 - C) enterohepatic recycling.
 - D) enzymes.

Answer Key

1. B
2. C
3. D
4. A
5. C
6. B
7. B
8. C
9. B
10. D
11. B
12. A
13. D
14. A
15. A
16. D
17. C
18. B
19. A
20. B
21. D
22. B
23. B
24. A
25. A
26. D
27. D
28. D
29. A
30. D
31. A
32. D
33. C
34. D
35. B
36. D
37. B
38. B
39. A
40. C
41. A
42. D
43. B
44. B

- 45. B
- 46. D
- 47. D
- 48. D
- 49. B
- 50. C
- 51. D
- 52. D
- 53. D
- 54. B
- 55. C
- 56. C
- 57. D
- 58. A
- 59. B
- 60. C
- 61. A
- 62. C
- 63. D
- 64. B
- 65. C
- 66. D
- 67. A
- 68. A
- 69. D
- 70. B
- 71. C
- 72. C
- 73. A
- 74. D
- 75. C
- 76. A
- 77. B
- 78. A
- 79. B
- 80. C
- 81. A
- 82. D
- 83. C
- 84. C
- 85. C
- 86. D
- 87. D
- 88. C
- 89. A
- 90. C

- 91. B
- 92. D
- 93. D

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