Chapter 1 Introduction to Pharmacology

Case Study
As a third-year athletic training student, Deanna realizes how important it is to know about medications. In her short time as an athletic training student, Deanna has already witnessed her clinical preceptor answer questions for a number of athletes on the various drugs they take. One of the student-athletes, Joan, just asked her a question about the difference between Motrin that you can buy over the counter (OTC) and Motrin that requires a prescription. How would you respond to Joan’s question?

Answer: The active ingredient in OTC Motrin and prescription Motrin is the same. The generic name for the active ingredient in both products is ibuprofen. The OTC product is only available in 200-mg tablets. However, prescription Motrin is available in multiple strengths (400, 600, and 800 mg). The directions on the Drug Facts label on the OTC product should be followed when using OTC Motrin. The prescription ibuprofen doses are higher and are therefore used under a physician’s or other prescriber’s supervision.

Exam Questions
1. Controlled substances that have been determined to have a high abuse potential and no accepted medical purpose are classified as:
   a. Schedule I controlled substances.
   b. Schedule II controlled substances.
   c. Schedule III controlled substances.
   d. Schedule IV controlled substances.

2. The major focus of the Kefauver-Harris Amendment to the Food, Drug, and Cosmetic Act was:
   a. The differentiation between nonprescription and prescription medications.
   b. The requirement that all prescription medications be dispensed in child-resistant containers.
   c. The establishment of restrictions on the prescribing of medications with abuse potential.
   d. The requirement that all new drugs be tested for effectiveness prior to approval.

3. A Class III drug recall involves a drug product that:
   a. Is not likely to cause a health hazard if used.
   b. May cause a temporary or reversible health problem if used.
   c. Has a remote possibility of serious health effects if used.
   d. Has a reasonable possibility of a serious health threat if used.

4. The participants in phase I clinical trials are usually:
   a. Patients with advanced disease.
   b. Patients with newly diagnosed disease.
   c. Healthy volunteers.
   d. Children.

5. One of the goals of phase IV clinical trials is to:
   a. Determine the safe dosage range for the medication.
   b. Evaluate the effects of the medication in the general population.
   c. Investigate the pharmacokinetics of the medication.
   d. Understand short-term adverse effects.
6. Based on the following descriptions, which of the following medications would be the most likely to be classified by the Food and Drug Administration as an OTC drug?
   a. A medication that has a low frequency of adverse effects but a large number of drug interactions.
   b. A medication that can only be used for a short period of time.
   c. **A medication that has no requirements for laboratory monitoring.**
   d. A medication that has a high incidence of adverse effects.

7. The reference book that includes the official standards for the purity, strength, quality, and analysis of medications is:
   b. **United States Pharmacopeia/National Formulary.**
   d. *Pharmacotherapy: A Pathophysiologic Approach."

8. Which of the following is a common medication classification method?
   a. **Drugs that have the same mechanism of action.**
   b. Drugs that have look-alike or sound-alike names.
   c. Drugs that are approved for pediatric patients vs adult patients.
   d. Drugs that were approved through an Abbreviated New Drug Application.

9. The government agency that is responsible for the review and approval of all new drugs is the:
   a. Drug Enforcement Administration.
   c. Centers for Disease Control and Prevention.
   d. **Food and Drug Administration.**

10. Which of the following statements best describes the difference between a generic name and a generic drug?
    a. A generic name is associated with a specific drug entity, but a generic drug is specific to a particular manufacturer.
    b. **A generic name is associated with a specific drug entity, but a generic drug is a product marketed after the trade name product has gone off patent.**
    c. A generic name is derived from the chemical structure of the medication, but a generic drug is a simpler name associated with a specific drug entity.
    d. A generic name is only associated with OTC products, but a generic drug is a prescription-only product.