



Pharmacology Knowledge Test

New for 2018-2019

Roach's Introductory Clinical Pharmacology 11th edition is being used. For information about what happens to the tests when a new edition of a resource is released, please see [GRR item #50](#).

At ILC, [photo ID](#) must be presented prior to competing.

Purpose To encourage HOSA members to improve their ability to identify, spell, define and apply the principles and science common to pharmacology in the health community.

Description The event shall be a written test requiring competitors to apply, analyze, synthesize and evaluate information related to pharmacology. Competitors will define, interpret and apply pharmacology terms and information in a 100 item multiple choice test plus one tie-breaker essay question. Written test will measure knowledge and understanding at the recall, application and analysis levels. Higher-order thinking skills will be incorporated as appropriate.

Dress Code Competitors must be in official HOSA uniform or proper business attire. Bonus points will be awarded for [proper dress](#).

- Rules and Procedures**
1. Competitors in this event must be active members of HOSA-Future Health Professionals, in good standing in the division in which they are registered to compete (Secondary or Postsecondary/Collegiate).
 2. Competitors must be familiar with and adhere to the "[General Rules and Regulations of the National HOSA Competitive Events Program \(GRR\)](#)."
 3. One essay question will be administered with the original test. In case of a tie, the essay question will be judged and used to break the tie.
 4. The test plan and resources for the Pharmacology Knowledge Test are:

PHARMACOLOGY

Safety will be integrated throughout the test plan

- Basic Concepts in Pharmacology 12%
- Career Opportunities in Pharmacology 3%
- Ethical and Legal Responsibilities 10%
- Pediatrics and Geriatrics Adaptations 10%
- Drug Names, Classifications, Action, and Interactions 30%
- Drug Administration 20%
- Drug Measurement, Dosage, Conversions 10%
- Technologies in Pharmacology 5%

References for Pharmacology

- [Fulcher, Soto and Fulcher. *Pharmacology: Principles and Applications*. Elsevier, Latest edition.](#)
- [Ford, Susan and Sally Roach. *Roach's Introductory Clinical Pharmacology*. Lippincott, Williams and Wilkins, Latest edition.](#)
- **Please note:** Calculators are not allowed for Pharmacology, but two (2) sheets of blank paper will be provided per competitor.

NOTE: States/regions may use a different process for testing, to include but not limited to pre-conference testing, online testing, and testing at a computer. Check with your Area/Region/State for the process you will be using.

5. All competitors shall report to the site of the event at the time designated for the event orientation. The test will immediately follow the orientation. At ILC, [photo ID](#) must be presented prior to competing in each round. **No proxies will be allowed for the orientation.**
6. [Test Instructions](#) Competitors will be given instructions on the use of the Scantron form. After instructions have been given to the competitors, they will be notified to start the test. There will be a maximum of **90 minutes** to complete the test. There will be a verbal announcement when there are 15 minutes remaining for the test period. Competitors may be excused from the testing site promptly after completion of the test.
7. The competitor should write his/her answer to the tie-breaker essay question on the tie-breaker page of the test that remains attached to the original test.
8. **ROUNDING:** When rounding decimal numbers to the nearest tenths, hundredths, or thousandths, look to the immediate right of the digit located in the position to be rounded. If the number to the direct right is 5 or larger, round to the position up one number and drop everything that follows. If the number to the direct right is 4 or smaller, leave the position being rounded as is and drop everything that follows.

In specific situations, answers will be rounded per medical protocol. For example, pediatric dosage is always rounded DOWN to avoid potential overdose. **Unless otherwise indicated, all answers should be rounded to the nearest whole number.** (Examples: 31.249 (rounded down) = 31 and 23.75 (rounded up) = 24).

Competitor Must Provide:

- Event guidelines (orientation)
- Two #2 lead pencils with an eraser
- [Photo ID](#)

FOR SPECIFICS ON EVENT MANAGEMENT SEE [MANAGING COMPETITIVE EVENTS](#)

Required Personnel:

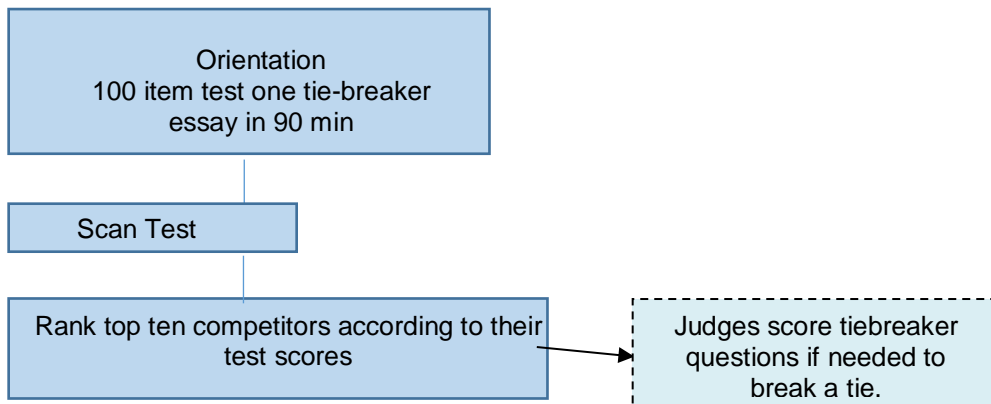
- One Event Manager
- One QA to provide quality assurance for the event by ensuring that the guidelines are followed and all event documents are complete.
- Proctors for Testing – Approximately one proctor for 20 competitors

- One judge who is considered by the National HOSA Competitive Events committee to be an expert in the area being tested - to grade the essay questions in case of a tie
- Event assistants as needed

Facilities, Equipment and Materials:

- One room to accommodate the total number of competitors
- Tables/chairs or schoolroom desks/chairs for total number of competitors
- Table/chairs for event personnel to provide for registration and materials distribution
- List of competitors for check-in
- One pre-numbered test per competitor
- Scantron/answer forms- one copy per competitor
- Timer or clock
- Evaluation Forms – competitor and personnel
- #2 lead pencils with eraser to complete evaluations (event personnel)
- Two (2) sheets of blank paper per competitor for Pharmacology Knowledge Test

Event Flow Chart



Sample Test Questions

1. The federal legislation that established funding for research of potentially dangerous drugs in the treatment of rare chronic illnesses is the:
 - A. Amendment to Applications for FDA Approval to Market New Drug.
 - B. Drug Regulation and Reform Act of 1978.
 - C. Omnibus Budget Reconciliation Act.
 - D. Orphan Drug Act of 1983.

2. The client who has been taking salicylates for a long period of time should be watched closely for:
 - A. bleeding.
 - B. fever of undetermined origin.
 - C. hypotension.
 - D. diminished urinary output.

3. 'Dramamine 25 mg po' is ordered for vomiting. The bottle is labeled 5 mg/4 mL. How many mL should be given per dose?
 - A. 16 mL
 - B. 20 mL
 - C. 40 mL
 - D. 50 mL