

Pathophysiology



New for 2022 – 2023

There will be NO verbal announcements during testing.

Event Summary

Pathophysiology provides members with the opportunity to gain knowledge and skills regarding pathophysiology concepts. This competitive event consists of a written test with a tiebreaker essay question. This event aims to inspire members to learn about the anatomy and physiology of human diseases impacting the health community.

Dress Code

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

Competitor Must Provide:

- [Photo ID](#)
- Two #2 lead pencils (not mechanical) with eraser

General Rules

1. Competitors in this event must be active members of HOSA-Future Health Professionals and in good standing.
2. **Eligible Divisions:** Secondary and Postsecondary/Collegiate divisions are eligible to compete in this event.
3. Competitors must be familiar with and adhere to the “[General Rules and Regulations of the HOSA Competitive Events Program \(GRR\)](#).”
 - Per the [GRRs #11](#) and [Appendix H](#), HOSA members may request accommodation in any competitive event. To learn the definition of an accommodation, please read [Appendix H](#). To request accommodation for the International Leadership Conference, [submit the request form here](#) by May 15 at midnight EST.
 - To request accommodation for any regional/state level conferences, please work with your local and state advisor directly. Accommodations must first be done at state in order to be considered for ILC.
4. All competitors shall report to the site of the event at the time designated for each round of competition. At ILC, competitor’s [photo ID](#) must be presented prior to ALL competition rounds.

Official References

5. All official references are used in the development of the written test.
6. [Frazier. *Essentials of Human Diseases and Conditions*. Elsevier. Latest edition.](#)
7. [Zelman, Mark; Raymond, Jill; Holdaway, Paul; Dafnis, Elaine; Mulvihill, Mary Lou. *Human Diseases A Systemic Approach*. Pearson. Latest edition.](#)

Written Test

8. [Test Instructions](#): The written test will consist of 100 multiple choice items in a maximum of 90 minutes.
9. **Time Remaining Announcements**: There will be NO verbal announcements for time remaining during ILC testing. All ILC testing will be completed in the Testing Center and competitors are responsible for monitoring their own time.
10. 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.
11. The test plan for Pathophysiology is:
 - Disease Process & Terminology
(includes cancer & neoplasms)..... 12%
 - Body Systems
 - Integumentary..... 8%
 - Musculoskeletal..... 10%
 - Circulatory & Lymphatic..... 12%
 - Respiratory..... 8%
 - Digestive..... 12%
 - Endocrine..... 8%
 - Nervous & Senses..... 10%
 - Reproductive..... 6%
 - Urinary..... 6%
 - Mental Disorders..... 8%

12. Sample Test Questions

1. The primary cause of osteomalacia is a deficiency or ineffective use of which nutrient? (Frazier p 265)
 - A. Calcium
 - B. Vitamin A
 - C. Iodine
 - D. Vitamin D**
2. Which type of shock is caused by a severe allergic reaction? (Zelman pp 107)
 - A. Anaphylactic**
 - B. Cardiogenic
 - C. Hypovolemic
 - D. Neurogenic
3. What neurotransmitter is produced in insufficient quantities in a patient with Parkinson's disease? (Frazier pp 560)
 - A. Aldosterone
 - B. Dopamine**
 - C. Gamma globulin
 - D. Prednisone

Final Scoring

13. The competitor should write his/her answer to the tiebreaker essay question on the tiebreaker page of the test that remains attached to the original test.
14. Final rank is determined by the test score. In case of a tie, the essay question will be used to determine the rank.