



SCIENCE OLYMPIAD
— AT THE —
UNIVERSITY OF FLORIDA

Northern Regional: January 19th, 2019

Disease Detectives C Answer Key

Name(s): _____

Team Name: _____

School Name: _____

Team Number: _____

Rank: _____

Score: _____

Tie-breaker questions are 9, 13, 14, 32, 35, and 52.

Part 1: Background and Surveillance (40 points total)

1. C (1 point)
2. A (1 point)
3. B and E (1 point each, 2 points total)
4. D (1 point)
5. C (1 point)
6. A (1 point)
7.
 1. D (1 point)
 2. B (1 point)
 3. A (1 point)
 4. C (1 point)
8.
 - a) 75% or 0.75 (1 point)
 - b) outbreak (1 point)
 - c) clinical (1 point)
 - d) 3 days (1 point)
 - e) epidemic (1 point)
 - f) pandemic (1 point)
 - g) prion (1 point)
 - h) virus (1 point)
9. D (1 point)
10. B (1 point)
11. D (1 point)
12. A (1 point)
13. D (1 point)
14. A (1 point)
15. C (1 point)
16. Agent, Reservoirs, Portal of Exit, Modes of Transmission, Portals of Entry, Susceptible host (1 point each, 6 points total; do not have to be in order)
17. True (1 point)
18. D (1 point)
19.
 - a) Data Dissemination (1 point)
 - b) Data Surveillance (1 point)
 - c) Data Analysis (1 point)
 - d) Link to Action (1 point)
 - e) Data Interpretation (1 point)
20. A (1 point)

Part 2: Outbreak Investigation (40 points total)

21. D (2 points)
22. B (2 points)
23. C (2 points)
24. 1) Clinical Information (2 pts)
2) Characteristics (2 pts)
3) Location or Place (2 pts)
4) Time Sequence (2 pts)
(No specific order needed; 8 points total)
25. B (2 pts)
26. D (2 pts)
27. D (2 pts)
28. A (2 pts)
29. A (2 pts)
30. The peak of the histogram (3 pts)
31. B (2 pts)
32. B (2 pts)
33. 20% (1 pt)
34. 25% (1 pt)
35. 0.80 (2 pts)
36. Cohort (2 pts)
37. Case-Control (2 pts)
38. Yes (1 pt)

Part 3: Patterns, Control, and Prevention

39. A (1 pt)
40. 2 (1 pt)
41. 50 (1 pt)
42. C (1 pt)
43. 1 point for saying isolation is of the infected patient, 1 point for saying quarantine is of healthy and infected patients. (2 pts)
44. 1 point for saying incidence is number of new cases and 1 point for saying prevalence is number of existing cases. (2 pts)
45. 1 point for a title (any title), 1 point for it being a pie chart, 1 point for the percentages being correct. Percentages=30% Main St, 60% 2nd Ave, and 10% Winter Lane (3 pts)
46. 0.10 (2 pts)
47. 0.20 (2 pts)
48. 0.20 (1 pt)
49. 2:8 (1 pt)
50. 1 point for saying eradication is no more transmission of the disease anywhere, 1 point for saying elimination is no more transmission of the disease in one geographic area, and 1 point for saying extinction is no more existence of the disease even in labs. (3 pts)
51. Eradication (2 pts)

52. D (2 pts)

53. Secondary (2 pts)

54. A (3 pts)

55. D (3 pts)