

Names: \_\_\_\_\_

Score: \_\_\_\_/45

## Part 1: Matching (1 point each)

1. Mortality _____	a. The probability that an individual will be affected by, or die from, an illness or injury within a stated time or age span.
2. Fomite _____	b. leaving perfect state of health
3. Surveillance _____	c. an animate intermediary in the indirect transmission of an agent that carries the agent from a reservoir to a susceptible host. An organism that transmits the infection as a mosquito transmits the malaria protozoans.
4. Cluster _____	d. A well-defined group of persons who have had a common experience or exposure and are then followed up to determine the incidence of new diseases or health events
5. Agent _____	e. an aggregation of cases over a particular period esp. cancer & birth defects closely grouped in time and space regardless of whether the number is more than the expected number
6. Dendrogram _____	f. A branching chart that indicates the evolutionary lineage or genetic relatedness of organisms
7. Cohort _____	g. a physical object that serves to transmit an infectious agent from person to person. A comb infested with one or more head lice would be a fomite or the dust particles containing infectious cold virus that remain after droplets of infected saliva are coughed into the air.
8. Natality _____	h. An infectious disease that is transmissible from animals to humans
9. Vector _____	i. state of being subject to death
10. Risk _____	j. The systematic, ongoing collection, analysis, interpretation, and dissemination of health data. The purpose of public health surveillance is to gain knowledge of the patterns of disease, injury, and other health problems in a community so that we can work toward controlling and preventing them.
11. Morbidity _____	k. a causative agent of a disease; doesn't have to be a pathogen- just something that causes a disease or health event
12. Zoonosis _____	l. birth rate

Recently, an outbreak of E. Coli has been discovered in the town of Oxford, Ohio. Of the 20,000 population (6,000 children vs 14,000 adults), 1500 cases were reported, 1000 being children. There was a school-related picnic a few days before the first case was reported, and 2,000 people attended. Of the 2,000 people, 1000 contracted E. Coli. Ten student became severely ill and died.

13. Calculate the prevalence of the disease. (1 point)

14. Create a 2x2 table and calculate the risk ratio for going to the picnic. (1 point)

15. Calculate the mortality rate for children. (1 point)

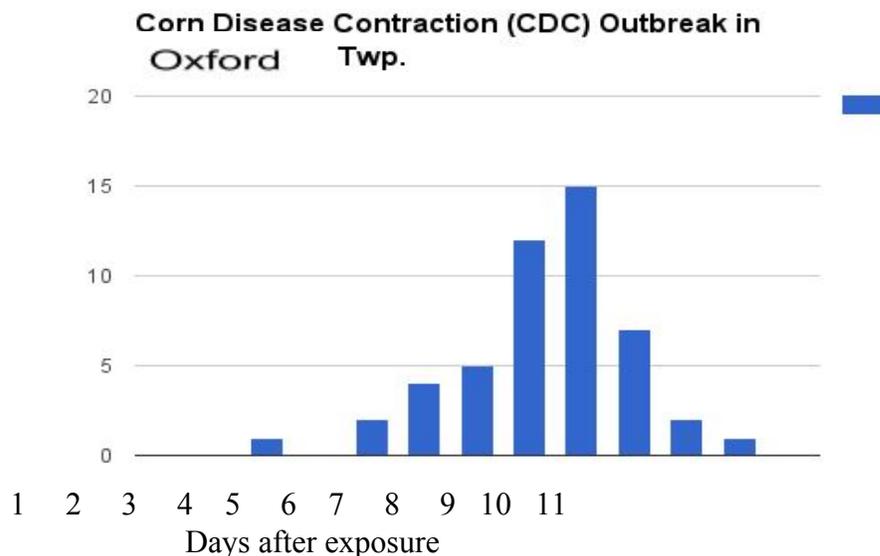
At the picnic, the school served Ohio Fried Chicken (OFC). 200 people who went to picnic were interviewed.

	Disease	No Disease
Ate food	100	25
Didn't eat	5	70

16. Calculate the attack rate of the disease. (1 point)

17. Calculate the relative risk at the picnic. (1 point)

Look at the chart below



18. State the type of curve this graph shows: \_\_\_\_\_ (1 point)
19. Determine the range of incubation period (1 point)
20. Determine the peak day and its number of cases. (1 point)
21. Which of the following is an example of an epidemiological triad? (1 point)
- I. Person-place-time
  - II. Virus-Bacteria-Fungus
  - III. Agent-host-environment
- a. I only
  - b. II only
  - c. I and II
  - d. I and III
  - e. II and III
22. A widespread seasonal occurrence of a disease is (1 point)
- a. Endemic
  - b. Epidemic
  - c. Outbreak
  - d. Pandemic
23. Which of the following examples would NOT be a component of a case definition? (1 point)
- a. The school cafeteria was selling OFC
  - b. CDC affects the town of Oxford
  - c. Symptoms include fever, bowel discomfort, amnesia, and mental instability
  - d. Cases were reported between January 25 to January 29
24. If in Oxford, there are 200 students, 100 students of them caught CDC and 2 students died, what is the mortality rate? (1 point)
- a. 1%
  - b. 0.1%
  - c. 2%
  - d. 20%

25. What is the incidence rate of the disease from question 24? (1 point)
- 1%
  - 2%
  - 20%
  - 50%
26. Which of the following is a food-borne illness? (1 point)
- Influenza
  - Norovirus
  - Streptococcal pharyngitis
  - Ebola virus
27. What is the difference between a vector and a fomite? (1 point)
- One is bacteria, the other is virus
  - One is dynamic, the other is static
  - One is abiotic, the other is animate
  - They are synonyms
28. What does ILI stand for? (1 point)
- Influenza Like Infection
  - Irish Leaf Infection
  - Insect Leech Irritation
  - Inflammatory Lower Intestine
29. Which of the following represents total population growth? (1 point)
- Mortality - Natality
  - Natality + Mortality
  - Natality - Mortality
  - Mortality/Natality
30. What is an example of cross-contamination? (1 point)
- Bob sneezes on Tom
  - Raw chicken drips into fruit salad
  - Pasta drops on the floor
  - Bob chews on Tom's pencil
- 31-35. Match the disease with its category: Bacteria (a), Virus(b), Protozoan(c), other(d) (1 point each)
31. Cryptosporidiosis

- 32. Diabetes
- 33. E. Coli
- 34. Malaria
- 35. Hepatitis C

36-40. Match the disease with its category: Mosquito (a), Tick(b), Blood(c), Food(d) (1 point each)

- 36. Norovirus
- 37. Lyme Disease
- 38. Ebola
- 39. Hepatitis A
- 40. Dengue Fever

Tiebreakers:

- 41. What is the CDC really stand for? (1 point)
  - a. Corn Disease Contraction
  - b. Canadian Directory for Cancer
  - c. Centers for Disease Control and Prevention
  - d. Crusting Duodenum Condition

42. Explain the advantages and disadvantages between Case-control and Cohort studies. (1 point per correctly explained advantage/disadvantage, 4 points maximum)