- 1. A community health nurse is teaching a group of recent graduates about the large variety of factors that influence an individual's health or lack thereof. The nurse is referring to the framework of determinants of health in one client's situation as a teaching example. Which of the following aspects of this client's situation most likely exists outside the framework of determinants of health?
  - A) The client has had difficulty finding a family doctor.
  - B) The client has a family history of cardiovascular disease.
  - C) The client has a graduate degree from a renowned university.
  - D) The client lives in an affluent, clean, suburban community.
- 2. A physician is providing care for a number of patients on a medical unit of a large university hospital. The physician is discussing with a colleague the differentiation between diseases that are caused by abnormal molecules and molecules that cause disease. Which of the following patients most clearly demonstrates the consequences of molecules that cause disease?
  - A) A 31-year-old woman with sickle cell disease who is receiving a transfusion of packed red blood cells
  - B) A 91-year-old woman who has experienced an ischemic stroke resulting from familial hypercholesterolemia
  - C) A 19-year-old man with exacerbation of his cystic fibrosis requiring oxygen therapy and chest physiotherapy
  - D) A 30-year-old homeless man who has pneumocystis carinii pneumonia (PCP) and is HIV positive
- 3. A member of the health-care team is researching the etiology and pathogenesis of a number of clients who are under her care in a hospital context. Which of the following aspects of clients' situations best characterizes pathogenesis rather than etiology?
  - A) A client who has been exposed to the *mycobacterium tuberculosis* bacterium
  - B) A client who has increasing serum ammonia levels due to liver cirrhosis
  - C) A client who was admitted with the effects of methyl alcohol poisoning
  - D) A client with multiple skeletal injuries secondary to a motor vehicle accident
- 4. A 77-year-old man is a hospital inpatient admitted for exacerbation of his chronic obstructive pulmonary disease (COPD), and a respiratory therapist (RT) is assessing the client for the first time. Which of the following aspects of the patient's current state of health would be best characterized as a symptom rather than a sign?
  - A) The patient's oxygen saturation is 83% by pulse oximetry.
  - B) The patient notes that he has increased work of breathing when lying supine.
  - C) The RT hears diminished breath sounds to the patient's lower lung fields bilaterally.
  - D) The patient's respiratory rate is 31 breaths per minute.

- 5. The laboratory technologists are discussing a new blood test that helps establish a differential diagnosis between shortness of breath with a cardiac etiology and shortness of breath with a respiratory/pulmonary etiology. A positive result is purported to indicate a cardiac etiology. The marketers of the test report that 99.8% of patients who have confirmed cardiac etiologies test positive in the test. However, 1.3 percent of patients who do not have cardiac etiologies for their shortness of breath also test positive. Which of the following statements best characterizes this blood test?
  - A) Low validity, high reliability
  - B) High sensitivity, low specificity
  - C) High specificity, low reliability
  - D) High sensitivity, low reliability
- 6. As part of a screening program for prostate cancer, men at a senior citizens' centre are having their blood levels of prostate-specific antigen (PSA) measured. Which of the following statements would best characterize high positive predictive value but low negative predictive value for this screening test?
  - A) All of the men who had high PSA levels developed prostate cancer; several men who had low PSA levels also developed prostate cancer.
  - B) All of the men who had low PSA levels were cancer free; several men who had high levels also remained free of prostate cancer.
  - C) Men who had low PSA levels also displayed false-positive results for prostate cancer; men with high levels were often falsely diagnosed with prostate cancer.
  - D) The test displayed low sensitivity but high specificity.
- 7. A particular disease has a debilitating effect on the ability of sufferers to perform their activities of daily living and is a significant cause of decreased quality of life. However, few people die as a result of the disease's direct effects. There are hundreds of thousands of Canadians living with the disease but relatively few new cases in recent years. Which of the following statements best conveys an accurate epidemiological characterization of the disease?
  - A) Low mortality, high morbidity, low prevalence, high incidence
  - B) Low mortality, high morbidity, high incidence, low prevalence
  - C) High mortality, low morbidity, high incidence, low prevalence
  - D) High morbidity, low mortality, high prevalence, low incidence

- 8. An epidemiologist is conducting a program of research aimed at identifying factors associated with incidence and prevalence of congenital cardiac defects in infants. The researcher has recruited a large number of mothers whose infants were born with cardiac defects, as well as mothers whose infants were born with healthy hearts. The researcher is comparing the nutritional habits of all the mothers while their babies were in utero. Which of the following types of studies is the epidemiologist most likely conducting?
  - A) Cohort study
  - B) Cross-sectional study
  - C) Case-control study
  - D) Risk-factor study
- 9. A multidisciplinary health-care team operates a program aimed at the prevention, identification, and treatment of diabetes in a rural community. Which of the following aspects of the program would be most likely to be classified as secondary prevention?
  - A) Regularly scheduled wound-dressing changes for clients who have foot ulcers secondary to peripheral neuropathy and impaired wound healing
  - B) Teaching schoolchildren how a nutritious, traditional diet can lessen their chances of developing adult-onset diabetes
  - C) Staffing a booth where community residents who are attending a baseball tournament can have their blood-glucose levels checked
  - D) Administering oral antihyperglycemic medications to clients who have a diagnosis of diabetes
- 10. An occupational therapist conducts a group therapy program called MindWorks with older adults who have diagnoses of dementia and Alzheimer disease. The goal of the group is to slow the cognitive decline of clients by engaging them in regular, organized mental activity, such as reading maps and solving puzzles. How would the program most likely be characterized?
  - A) Primary prevention
  - B) Secondary prevention
  - C) Tertiary prevention
  - D) Prognosis enhancement
- 11. The clinical educator of a hospital medical unit has the mandate of establishing evidence-based practice guidelines for the nursing care on the unit. Which of the following statements most accurately captures a guiding principle of the nurse's task?
  - A) Evidence-based practice guidelines will be rooted in research rather than nurses' subjective practice preferences and experiences.
  - B) Guidelines are synonymous with systematic research reviews.
  - C) The need for continuity and standardization of guidelines will mean that they will be fixed rather than changeable.
  - D) The guidelines will combine individual expertise with external systematic evidence.

- 12. An understanding of pathophysiology is crucial for providing adequate care for your future patients. To best understand the study of pathophysiology, you must have a clear understanding of the term itself. Of the definitions below, which one best describes the term pathophysiology?
  - A) The physiology of altered health
  - B) Any deviation from or interruption of the normal structure or function of any part, organ, or system of the body
  - C) Causes of disease
  - D) Changes in structure or form that is characteristic of a disease
- 13. A physician's assistant (PA) is examining a 21-year-old college student that is exhibiting the classic symptoms of schizophrenia. In the course of her evaluation the PA begins developing a treatment strategy based on what she knows about the disease, available therapies, and medications. She also makes the patient aware of the consequences of not following the treatment regimen. To accomplish this, what aspect of the disease is the PA using?
  - A) Etiology
  - B) Causation
  - C) Natural history
  - D) Morbidity statistics
- 14. While you are working on a case, your patient dies, and you are charged with filling out the death certificate. In performing this task, you are required to record age, sex, cause of death, and socieoeconomic status, among other factors. What is the purpose of reporting these statistics?
  - A) These statistics are recorded so pharmaceutical companies may compile the data to determine future need.
  - B) These statistics are useful for the government to update tax records.
  - C) These statistics are useful in terms of anticipating health-care needs, planning public-education programs, directing health research efforts, and allocating health-care dollars.
  - D) These statistics are useful in ranking the efficiency of hospitals and clinics.
- 15. The Framingham Heart Study is one of the most well-known studies carried out to date. Clinicians use the information obtained from the study to predict outcomes of patients with coronary disease. What type of study was this?
  - A) Repetition
  - B) Double-blind placebo
  - C) Case-control
  - D) Cohort

- 16. Your patient has already suffered a heart attack and is placed on  $\beta$ -blockers to reduce the workload on the heart, as well as a statin drug and a low-fat diet to lower cholesterol. This treatment plan is based on multiple levels; one is diet and statin therapy, and the other is the use of  $\beta$ -blockers. Assign the level of prevention each of these therapies can be classified as.
  - A) Primary, secondary
  - B) Secondary, tertiary
  - C) Primary, tertiary
  - D) Secondary, primary

## **Answer Key**

- 1. C
- 2. D
- 3. B
- 4. B
- 5. B
- 6. A
- 7. D
- 8. C
- 9. C
- 10. C
- 11. D
- 12. A 13. C
- 14. C
- 15. D
- 16. C