

Porth's Essentials of Pathophysiology 5th Edition Test Bank

1. While attending an international nursing conference, many discussions and break-out sessions focused on the World Health Organization's (WHO) views on health. Of the following comments made by nurses during a discussion session, which statements would be considered a good representation of the WHO definition? Select all that apply.

- A. Interests in keeping the older adult population engaged in such activities as book reviews and word games during social time
- B. Increase in the number of chair aerobics classes provided in the skilled care facilities
- C. Interventions geared toward keeping the older adult population diagnosed with diabetes mellitus under tight blood glucose control by providing in-home cooking classes
- D. Providing transportation for renal dialysis clients to and from their hemodialysis sessions
- E. Providing handwashing teaching sessions to a group of young children

Answer: A, B, C, E

Rationale: WHO definition of health is defined as "a state of complete physical, mental, and social well-being and not merely the absence of disease and infirmity." Engaging in book reviews facilitates mental and social well-being; chair aerobics helps facilitate physical well-being; and assisting with tight control of diabetes helps with facilitating physical well-being (even though the person has a chronic disease). Handwashing is vital in the prevention of disease and spread of germs.

Question format: Multiple Select

Chapter 1: Concepts of Health and Disease

Cognitive Level: Apply

Client Needs: Safe, Effective Care Environment: Management of Care

Reference: p. 2

2. 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 *Healthy People 2020* report from the U.S. Department of Health and Human Services as a teaching example. Of the following aspects discussed, which would be considered a determinant of health that is outside the focus of this report?

- A. The client has a diverse background by being of Asian and Native American/First Nation descent and practices various alternative therapies to minimize effects of stress.
- B. The client has a family history of cardiovascular disease related to hypercholesterolemia and remains noncompliant with the treatment regime.
- C. The client has a good career with exceptional preventive health care benefits.
- D. The client lives in an affluent, clean, suburban community with access to many health care facilities.

Answer: B

Rationale: In *Healthy People 2020*, the focus is to promote good health to all (such as using alternative therapies to minimize effects of stress); achieving health equity and promoting health for all (which includes having good health care benefits); and promoting good health (which includes living in a clean community with good access to health care). Being noncompliant with treatments to control high cholesterol levels with a family history to CV disease does not meet the "attaining lives free of preventable disease and premature death" goal/objective.

Question format: Multiple Choice

Chapter 1: Concepts of Health and Disease

Cognitive Level: Apply

Client Needs: Health Promotion and Maintenance

Reference: p. 2

3. A member of the health care team is researching the etiology and pathogenesis of a number of clients who are under his care in a hospital context. Which aspect 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 is 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.

Answer: B

Rationale: Pathogenesis refers to the progressive and evolutionary course of disease, such as the increasing ammonia levels that accompany liver disease. Bacteria, poisons, and traumatic injuries are examples of etiologic factors.

Question format: Multiple Choice

Chapter 1: Concepts of Health and Disease

Cognitive Level: Apply

Client Needs: Physiological Integrity: Physiological Adaptation

Reference: p. 3

4. A new client who suffered a myocardial infarction requires angioplasty and stent placement. He has arrived to his first cardiac rehabilitation appointment. In this first session, a review of the pathogenesis of coronary artery disease is addressed. Which statement by the client verifies to the nurse that he has understood the nurse's teachings about coronary artery disease?

- A. "All I have to do is stop smoking and then I won't have any more heart attacks."
- B. "My artery was clogged by fat so I will need to stop eating fatty foods like french fries every day."
- C. "Sounds like this began because of inflammation inside my artery that made it easy to form fatty streaks which led to my clogged artery."
- D. " If you do not exercise regularly to get your heart rate up, blood pools in the veins causing a clot which stops blood flow to the muscle and you have a heart attack."

Answer: C

Rationale: The true etiology/cause of coronary artery disease (CAD) is unknown; however, the pathogenesis of the disorder relates to the progression of the inflammatory process from a fatty streak to the occlusive vessel lesion seen in people with coronary artery disease. Risk factors for CAD revolve around cigarette smoking, diet high in fat, and lack of exercise.

Question format: Multiple Choice

Chapter 1: Concepts of Health and Disease

Cognitive Level: Apply

Client Needs: Physiological Integrity: Physiological Adaptation

Reference: p. 3

5. 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 aspect of the client's current state of health would be **best** characterized as a symptom rather than a sign?

A. The client's oxygen saturation is 83% by pulse oximetry.

B. The client notes that he has increased work of breathing when lying supine.

C. The RT hears diminished breath sounds to the client's lower lung fields bilaterally.

D. The client's respiratory rate is 31 breaths per minute.

Answer: B

Rationale: Symptoms are subjective reports by the person experiencing the health problem, such as reports of breathing difficulty. Oxygen levels, listening to breath sounds, and respiratory rate are all objective, observable signs of disease.

Question format: Multiple Choice

Chapter 1: Concepts of Health and Disease

Cognitive Level: Analyze

Client Needs: Physiological Integrity: Physiological Adaptation

Reference: p. 5

6. Which situation would be classified as a complication of a disease or outcome from the treatment regimen? Select all that apply.

A. Massive pulmonary emboli following diagnosis of new onset atrial fibrillation.

B. Burning, intense incision pain following surgery to remove a portion of colon due to intestinal aganglionosis.

C. Development of pulmonary fibrosis following treatment with bleomycin, an antibiotic chemotherapy agent used in treatment of lymphoma.

D. Gradual deterioration in ability to walk unassisted for a client diagnosed with Parkinson disease.

E. Loss of short-term memory in a client diagnosed with Alzheimer disease.

Answer: A, C

Rationale: Development of pulmonary emboli and pulmonary fibrosis following chemotherapy are both examples of a complication (adverse extensions of a disease or outcome from treatment). It is normal to expect incisional pain following

surgery. As Parkinson disease progresses, the ability to walk independently is expected to decrease. This is a normal progression for people diagnosed with Parkinson disease. Loss of short-term memory in a client diagnosed with Alzheimer disease is an expected finding.

Question format: Multiple Select

Chapter 1: Concepts of Health and Disease

Cognitive Level: Analyze

Client Needs: Physiological Integrity: Physiological Adaptation

Reference: p. 3

7. Laboratory testing is ordered for a male client during a clinic visit for routine follow-up assessment of hypertension. When interpreting lab values, the nurse knows:

- A. a normal value represents the test results that fall within the bell curve.
- B. if the lab result is above the 50% distribution, the result is considered elevated.
- C. all lab values are adjusted for gender and weight.
- D. if the result of a very sensitive test is negative, that does not mean the person is disease free.

Answer: A

Rationale: What is termed a normal value for a laboratory test is established statistically from results obtained from a selected sample of people. A normal value represents the test results that fall within the bell curve or the 95% distribution. Some lab values (like hemoglobin) are adjusted for gender, other comorbidities, or age. If the result of a very sensitive test is negative, it tells us the person does not have the disease and the disease has been ruled out or excluded.

Question format: Multiple Choice

Chapter 1: Concepts of Health and Disease

Cognitive Level: Analyze

Client Needs: Physiological Integrity: Reduction of Risk Potential

Reference: p. 1

8. 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 clients who have confirmed cardiac etiologies test positive in the test. However, 1.3% of clients who do not have cardiac etiologies for their shortness of breath also test positive. Which statement **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

Answer: B

Rationale: A large number of clients would receive the correct positive diagnosis (high sensitivity), while a significant number would receive a false-positive diagnosis (low specificity). The information given does not indicate low reliability or low validity.

Question format: Multiple Choice

Chapter 1: Concepts of Health and Disease

Cognitive Level: Analyze

Client Needs: Physiological Integrity: Reduction of Risk Potential

Reference: p. 4

9. As part of a screening program for prostate cancer, men at a senior citizens center are having their blood levels of prostate-specific antigen (PSA) measured. Which statement 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.

Answer: A

Rationale: The test's inability to rule out cancer with a low PSA level indicates low negative predictive value. The answer "All of the men who had low PSA levels were cancer-free; several men who had high levels also remained free of prostate cancer" suggests high negative predictive value. The answer "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" indicates low positive predictive value. High positive predictive value is associated with *high* sensitivity.

Question format: Multiple Choice

Chapter 1: Concepts of Health and Disease

Cognitive Level: Analyze

Client Needs: Health Promotion and Maintenance

Reference: p. 5

10. A male international business traveler has returned from a trip to Indonesia. While there, he hired a prostitute for companionship and engaged in unprotected sex on more than one occasion. Unbeknownst to him, this prostitute harbored the hepatitis C virus. Upon return to the U.S., he exhibited no symptoms and returned to his usual activities. During this period of no outward symptoms, the disease would be classified as being in:

- A. the preclinical stage of disease.
- B. remission and unlikely to develop hepatitis C.
- C. the clinical disease stage of hepatitis C.
- D. the chronic phase of hepatitis C.

Answer: A

Rationale: During the preclinical stage, the disease is not clinically evident but is destined to progress to clinical disease.

Question format: Multiple Choice

Chapter 1: Concepts of Health and Disease

Cognitive Level: Analyze

Client Needs: Safe, Effective Care Environment: Management of Care

Reference: p. 5

11. As of Nov. 1, 2012, there were a total of 10 confirmed cases of hantavirus infection in people who were recent visitors (mid-June to end of August, 2012) to Yosemite National Park. Three visitors with confirmed cases died. Health officials believe that 9 out of the 10 cases of hantavirus were exposed while staying in Curry Village in the Signature Tent Cabins. This is an example of:

- A. what the anticipated mortality rate would be if a family of five were planning to vacation in Yosemite National Park.
- B. the prevalence of hantavirus one can anticipate if he or she is going to vacation in Yosemite National Park.
- C. the low rate of morbidity one can expect while traveling to Yosemite National Park.
- D. the incidence of people who are at risk for developing hantavirus while staying in Yosemite National Park.

Answer: D

Rationale: The incidence reflects the number of new cases arising in a population at risk during a specified time.

Question format: Multiple Choice

Chapter 1: Concepts of Health and Disease

Cognitive Level: Analyze

Client Needs: Safe, Effective Care Environment: Management of Care

Reference: p. 6

12. 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 Americans living with the disease but relatively few new cases in recent years. Which statement **best** conveys an accurate epidemiologic 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.

Answer: D