

**Chapter 01: Introduction to Pathology**  
**Kowalczyk: Radiographic Pathology for Technologists, 7th Edition**

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**MULTIPLE CHOICE**

1. The sequence of events producing cellular changes following injury best defines
  - a. manifestations.
  - b. pathogenesis.
  - c. sign.
  - d. symptom.

ANS: B

2. An abnormal disturbance of the function and structure of the human body following injury refers to
  - a. disease.
  - b. etiology.
  - c. manifestations.
  - d. pathogenesis.

ANS: A

3. The study of the cause of disease is termed
  - a. disease.
  - b. etiology.
  - c. pathogenesis.
  - d. prognosis.

ANS: B

4. Common agents that cause disease include
  1. bacteria.
  2. chemicals.
  3. heat.
  - a. 1 and 2 only
  - b. 1 and 3 only
  - c. 2 and 3 only
  - d. 1, 2, and 3

ANS: D

5. A *syndrome* is best defined as
  - a. a genetic abnormality of a single protein.
  - b. an adverse response to medical treatment.
  - c. the patient's perception of the disease.
  - d. signs and symptoms that characterizes a specific abnormal disturbance.

ANS: D

6. An adverse response to medical treatment itself is termed
  - a. autoimmune.

- b. iatrogenic.
- c. idiopathic.
- d. nosocomial.

ANS: B

7. *Prognosis* refers to
- a. diseases usually having a quick onset.
  - b. the name of the particular disease.
  - c. the predicted course and outcome of the disease.
  - d. the structure of cells or tissue.

ANS: C

8. Diseases that generally require a decrease in the exposure technique are considered
- a. destructive.
  - b. lytic.
  - c. subtractive.
  - d. All of the above.

ANS: D

9. The investigation of disease occurring in large groups best defines
- a. epidemiology.
  - b. incidence.
  - c. prevalence.
  - d. All of the above.

ANS: A

10. Data regarding the number of deaths caused by a particular disease averaged over a population are collected and reported by the
- a. American College of Radiology.
  - b. Centers for Disease Control.
  - c. Food and Drug Administration.
  - d. National Center for Health Statistics.

ANS: D

11. Which of the following are leading causes of death in the United States for adults aged 45 years and greater?
- 1. Heart disease
  - 2. Malignant neoplasm
  - 3. Polycystic kidney disease
- a. 1 and 2 only
  - b. 1 and 3 only
  - c. 2 and 3 only
  - d. 1, 2, and 3

ANS: A

12. In 2010 health spending accounted for approximately \_\_\_\_\_% of the US gross domestic product.

- a. 12
- b. 17
- c. 21
- d. 33

ANS: B

13. Each cell in the human body, except the reproductive cells, contains \_\_\_\_\_ pairs of autosomal chromosomes, \_\_\_\_\_ sex chromosomes.
- a. 11, 1
  - b. 11, 2
  - c. 22, 1
  - d. 22, 2

ANS: D

14. The types of gene maps that grew out of the identification of DNA sequences include
- 1. genetic maps.
  - 2. SNP maps.
  - 3. physical maps.
- a. 1 and 2 only
  - b. 1 and 3 only
  - c. 2 and 3 only
  - d. 1, 2, and 3

ANS: B

15. The identification of common DNA pattern sequences and common patterns of genetic variations of single DNA bases resulted in
- a. the Genome Project.
  - b. genetic linkage maps.
  - c. haplotype mapping.
  - d. physical mapping.

ANS: C

16. Diseases that are present at birth from genetic or environmental factors are classified as
- a. congenital.
  - b. degenerative.
  - c. genetic.
  - d. metabolic.

ANS: A

17. A genetic disorder caused by an abnormality on one of the 22 non-sex chromosomes is considered
- a. autosomal.
  - b. dominant.
  - c. recessive.
  - d. sex linked.

ANS: A

18. A protein coat surrounding a genome of either RNA or DNA without an organized cellular structure best describes which type of microorganism?
- Bacteria
  - Fungi
  - Virus
  - All of the above

ANS: C

19. The ease with which a pathogenic organism can overcome the body's defenses best describes
- etiology.
  - infection.
  - pathogenesis.
  - virulence.

ANS: D

20. Diseases caused by the disturbance of normal physiologic function are classified as
- degenerative.
  - metabolic.
  - neoplastic.
  - traumatic.

ANS: B

21. The lymph node into which the primary neoplasm drains during metastasis is termed the \_\_\_\_\_ node.
- primary
  - sentinel
  - metastatic
  - neoplastic

ANS: B

22. The spread of cancerous cells into surrounding tissue by virtue of the close proximity best describes
- lymphatic spread.
  - hematogenous spread.
  - invasion.
  - oncogenesis.

ANS: C

23. Cancer originating in epithelial tissue is termed
- carcinoma.
  - leukemia.
  - lymphoma.
  - sarcoma.

ANS: A

24. In classification of a tumor using the TNM system, the T refers to the
- size of the primary tumor.

- b. lymph node involvement.
- c. distant metastasis.
- d. histologic grading of the primary tumor.

ANS: A

25. Which of the following imaging modalities are used in the staging of neoplastic tumors?
- 1. CT
  - 2. PET
  - 3. MRI
- a. 1 and 2 only
  - b. 1 and 3 only
  - c. 2 and 3 only
  - d. 1, 2, and 3

ANS: D

26. In the treatment of neoplastic disease, interferons and interleukins are associated with
- a. chemotherapy.
  - b. radiation therapy.
  - c. hormone therapy.
  - d. immunotherapy.

ANS: D

## MATCHING

Altered cell biology

*Directions: Match the type of altered cell biology with the correct description.*

Description of altered cell biology

- a. A generalized decrease in cell size
  - b. A generalized increase in cell size
  - c. An increase in the number of cells in tissue as a result of excessive proliferation
  - d. Conversion of one cell type into another cell type
  - e. Abnormal changes of mature cells
- 1. Hypertrophy
  - 2. Atrophy
  - 3. Metaplasia
  - 4. Hyperplasia
  - 5. Dysplasia
- 1. ANS: B
  - 2. ANS: A
  - 3. ANS: D
  - 4. ANS: C
  - 5. ANS: E

## TRUE/FALSE