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## Multiple Choice

1. Which of the following is NOT an example of a dental material?

- A. Amalgam filling
- B. Porcelain crown
- C. Full maxillary denture
- D. Fluoride varnish

Answer: D

Subject: Chapter 01: Introduction

2. The most reliable source of information about a dental product comes from:

- A. Manufacturer's data
- B. Clinical trials
- C. Package inserts
- D. Hands-on experience

Answer: B

Subject: Chapter 01: Introduction

3. The Council on Scientific Affairs, which develops standards for dental products, operates under the guidance of which organization?

- A. ANSI
- B. ADA
- C. DMD
- D. ADSI

Answer: A

Subject: Chapter 01: Introduction

4. The ADA Seal of Acceptance is issued to a product that follows ADA guidelines for a period of how many years?

- A. 5 years
- B. 3 years
- C. 6 years
- D. Lifetime

Answer: B

Subject: Chapter 01: Introduction

5. An example of a Class II medical device is:

- A. Composite restorative material
- B. A toothbrush
- C. Bone graft material
- D. Prophy paste

Answer: A

Subject: Chapter 01: Introduction

6. Dental materials that are tooth colored are called \_\_\_\_\_ materials?

- A. Hygienic
- B. Esthetic
- C. Prosthetic
- D. Cosmetic

Answer: B

Subject: Chapter 01: Introduction

7. A dental material that is classified by longevity of use includes all of the following EXCEPT:

- A. Temporary restoration
- B. Permanent restoration
- C. Partial restoration
- D. Interim restoration

Answer: C

Subject: Chapter 01: Introduction

8. Dental caries involving the area just below the interproximal contact is referred to as:

- A. Class III
- B. Class I
- C. Class V
- D. Class II

Answer: D

Subject: Chapter 01: Introduction

9. Class \_\_\_\_\_ lesions involve the cusp tip or incisal edge of a tooth (and were not part of Black's original classifications).

- A. I
- B. III
- C. VI
- D. V

Answer: C

Subject: Chapter 01: Introduction

10. Class \_\_\_\_\_ restorations are often placed as a result of trauma and involve the incisal angle of an anterior tooth.

- A. IV
- B. III
- C. VI
- D. II

Answer: A

Subject: Chapter 01: Introduction

### Multiple Choice

1. Which of the following areas is not a physical science that contributes to the field of materials science?

- A. Chemistry
- B. Physics
- C. Physiology
- D. Engineering

Answer: C

Subject: Chapter 02: Materials Science and Dentistry

2. The phase of matter with the weakest atomic bond strength is:

- A. Liquid
- B. Solid
- C. Colloid
- D. Gas

Answer: D

Subject: Chapter 02: Materials Science and Dentistry

3. The type of primary bond that is the result of an electron being given up by one atom and accepted by another is a(n) \_\_\_\_\_?

- A. Ionic bond
- B. Covalent bond
- C. van der Waals force
- D. Secondary bond

Answer: A

Subject: Chapter 02: Materials Science and Dentistry

4. Which of the following is not an example of a secondary bond?

- A. van der Waals forces
- B. Permanent dipoles
- C. Hydrogen bonds
- D. Covalent bonds

Answer: D

Subject: Chapter 02: Materials Science and Dentistry

5. \_\_\_\_\_ bonding is a special case example of a permanent dipole that results in a bond that is stronger than other secondary bonds.

- A. Hydrogen
- B. Fluctuating dipole
- C. Ionic
- D. van der Waals forces

Answer: A

Subject: Chapter 02: Materials Science and Dentistry

6. When one atom in a covalent bond pulls the electron toward it more strongly, this is referred to as a:

- A. Hydrogen bond
- B. Permanent dipole
- C. Ionic bond
- D. Metallic bond

Answer: B

Subject: Chapter 02: Materials Science and Dentistry

7. The bond type where the electrons are shared by ALL of the atoms instead of by just two atoms is:

- A. Ionic bond
- B. Covalent bond
- C. Metallic bond
- D. Hydrogen bond

Answer: C

Subject: Chapter 02: Materials Science and Dentistry

8. The material that is held together by ionic bonds is strong when compressed and brittle when bent is:

- A. Plastic
- B. Composite
- C. Metal
- D. Ceramic

Answer: D

Subject: Chapter 02: Materials Science and Dentistry

9. \_\_\_\_\_ are materials that are composed of chains of covalently bonded repeating units.
- A. Ceramics
  - B. Metals
  - C. Plastics
  - D. Composites

Answer: C

Subject: Chapter 02: Materials Science and Dentistry

10. This strong, lightweight material is made of two or more different materials.
- A. Composites
  - B. Plastics
  - C. Metals
  - D. Ceramics

Answer: A

Subject: Chapter 02: Materials Science and Dentistry