**Chapter 9 Pre-Test A**

**Multiple Choice**

*Identify the choice that best completes the statement or answers the question.*

**\_\_\_\_ 1.** Which of the following processes is equivalent to chemical digestion?

|  |  |
| --- | --- |
| **a.** | synthesis |
| **b.** | hydrolysis |
| **c.** | neutralization |
| **d.** | concentration |

**\_\_\_\_ 2.** The hydrolysis of nutrients present in food is caused by

|  |  |
| --- | --- |
| **a.** | bacteria. |
| **b.** | enzymes. |
| **c.** | peristalsis. |
| **d.** | stomach acid. |

**\_\_\_\_ 3.** How can nutrients enter the circulatory system?

|  |  |
| --- | --- |
| **a.** | Glucose is absorbed into a villus. |
| **b.** | Amino acids are absorbed by a lacteal. |
| **c.** | Polysaccharides are absorbed into the blood stream. |
| **d.** | Proteins are absorbed into the wall of the small intestine. |

**\_\_\_\_ 4.** What is the role of lipase?

|  |  |
| --- | --- |
| **a.** | to break peptides into amino acids |
| **b.** | to break proteins into small polypeptides |
| **c.** | to break polysaccharides into monosaccharides |
| **d.** | to break fat droplets into glycerol and fatty acids |

**\_\_\_\_ 5.** What enzyme is responsible for the digestion of starch?

|  |  |
| --- | --- |
| **a.** | maltase |
| **b.** | amylase |
| **c.** | nuclease |
| **d.** | peptidase |

**\_\_\_\_ 6.** Trypsin acts upon

|  |  |
| --- | --- |
| **a.** | lipids. |
| **b.** | proteins. |
| **c.** | nucleic acids. |
| **d.** | carbohydrates. |

**\_\_\_\_ 7.** Which of the following substances is digested by amylase?

|  |  |
| --- | --- |
| **a.** | lipids |
| **b.** | proteins |
| **c.** | polypeptides |
| **d.** | polysaccharides |

**\_\_\_\_ 8.** In which part of the digestive system are *E.coli* bacteria normally found?

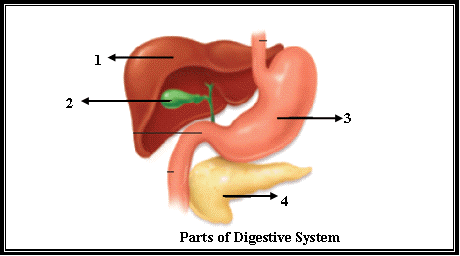
|  |  |
| --- | --- |
| **a.** | mouth |
| **b.** | pancreas |
| **c.** | large intestine |
| **d.** | small intestine |

**\_\_\_\_ 9.** What other substance is likely to be released when food triggers the release of lipase?

|  |  |
| --- | --- |
| **a.** | bile |
| **b.** | pepsin |
| **c.** | amylase |
| **d.** | nuclease |

**\_\_\_\_ 10.** Which of the following describes pancreatic secretions?

|  |  |
| --- | --- |
| **a.** | it is basic |
| **b.** | it is acidic |
| **c.** | it contains pepsin |
| **d.** | it contains maltase |



**\_\_\_\_ 11. Use the diagram above to answer the next question.**

Which of the following roles is **not** performed by the organ 1?

|  |  |
| --- | --- |
| **a.** | detoxifies blood |
| **b.** | maintains blood glucose levels |
| **c.** | secretes bile into the duodenum |
| **d.** | regulates blood cholesterol level |

**\_\_\_\_ 12.** Which of the following carbohydrates cannot be digested by enzymes present in the human digestive system?

|  |  |
| --- | --- |
| **a.** | starch |
| **b.** | sucrose |
| **c.** | maltose |
| **d.** | cellulose |



**\_\_\_\_ 13. Use the diagram above to answer the next question**.

What organ secretes an enzyme that produce a monomer used by the organelle shown?

|  |  |
| --- | --- |
| **a.** | liver |
| **b.** | stomach |
| **c.** | pancreas |
| **d.** | small intestine |

**\_\_\_\_ 14.** Which of the following substances will become more concentrated in the capillaries within a villus after a meal?

|  |  |
| --- | --- |
| **a.** | glucose |
| **b.** | glycerol |
| **c.** | fatty acids |
| **d.** | nucleic acids |

**\_\_\_\_ 15.** Which structure secretes enzymes capable of digesting proteins, carbohydrates, and fats?

|  |  |
| --- | --- |
| **a.** | liver |
| **b.** | stomach |
| **c.** | pancreas |
| **d.** | small intestine |

**\_\_\_\_ 16.** Assuming that all other conditions are optimal, in which of the following situations will digestion occur?

|  |  |
| --- | --- |
| **a.** | fats with lipase |
| **b.** | pepsin with peptides |
| **c.** | amylase with maltose |
| **d.** | nuclease with nucleotides |

**\_\_\_\_ 17.** What type of tissue must an amino acid first cross when entering a villus?

|  |  |
| --- | --- |
| **a.** | nervous |
| **b.** | muscular |
| **c.** | epithelial |
| **d.** | connective |

**\_\_\_\_ 18.** Which of the following is an example of homeostasis?

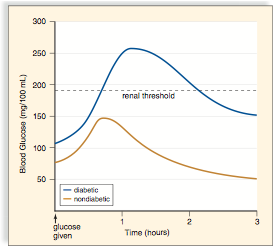
|  |  |
| --- | --- |
| **a.** | When fat enters the stomach, lipase is released. |
| **b.** | After a fatty meal, the gall bladder releases bile. |
| **c.** | After a sugary meal, the pancreas releases insulin. |
| **d.** | When protein enters the stomach, pepsinogen is released. |

**\_\_\_\_ 19.** A person with Pompe disease lacks an enzyme that would normally allow their lysosomes to break down glycogen. The glycogen builds up in their tissues leading to progressive weakness. Which one of the following organs is likely impacted by this disease?

|  |  |
| --- | --- |
| **a.** | liver |
| **b.** | stomach |
| **c.** | esophagus |
| **d.** | small intestine |

**\_\_\_\_ 20.** Which of the following substances is most likely to impact a person’s height?

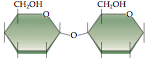
|  |  |
| --- | --- |
| **a.** | insulin |
| **b.** | glucagon |
| **c.** | somatostatin |
| **d.** | cholecystokinin |



**\_\_\_\_ 21. Use the graph above to answer the next question.**

What mechanism prevents blood glucose levels from exceeding the renal threshold?

|  |  |
| --- | --- |
| **a.** | The pancreas secretes insulin. |
| **b.** | The pancreas secretes glucagon. |
| **c.** | The liver releases glucose into the blood stream. |
| **d.** | The liver releases glycogen into the blood stream. |



**\_\_\_\_ 22. Use the diagram above to answer the next question.**

What organ secretes an enzyme capable of producing this molecule by hydrolysis?

|  |  |
| --- | --- |
| **a.** | liver |
| **b.** | stomach |
| **c.** | pancreas |
| **d.** | small intestine |

**\_\_\_\_ 23. Use the diagram above to answer the next question.**

Which of the following substrates could have formed this product during digestion?

|  |  |
| --- | --- |
| **a.** | starch |
| **b.** | glucose |
| **c.** | glycerol |
| **d.** | glucagon |

**\_\_\_\_ 24.** With Crohn’s disease, there seems to be a misdirected immune response to one’s own intestinal tissues. Which of the following structures is likely damaged in a person afflicted with Crohn’s disease?

|  |  |
| --- | --- |
| **a.** | villi |
| **b.** | bile duct |
| **c.** | pyloric sphincter |
| **d.** | cardiac sphincter |

**\_\_\_\_ 25.** What chemical process occurs when trypsin acts upon its substrate?

|  |  |
| --- | --- |
| **a.** | A polypeptide is formed. |
| **b.** | A peptide bond is broken. |
| **c.** | A hydrogen bond is formed. |
| **d.** | A polysaccharide is digested. |

**Chapter 9 Pre-Test A**

**Answer Section**

**MULTIPLE CHOICE**

**1.** ANS: B PTS: 1 DIF: U REF: 9

OBJ: Digestive System LOC: C1-1 TOP: 9.1

KEY: Digestive Tract

**2.** ANS: B PTS: 1 DIF: K REF: 9

OBJ: Digestive System LOC: C2-1 TOP: 9.3

KEY: Digestive Enzymes

**3.** ANS: A PTS: 1 DIF: K REF: 9

OBJ: Digestive System LOC: C1-6 TOP: 9.1

KEY: Digestive Tract

**4.** ANS: D PTS: 1 DIF: K REF: 9

OBJ: Digestive System LOC: C2-1 TOP: 9.3

KEY: Digestive Enzymes

**5.** ANS: B PTS: 1 DIF: K REF: 9

OBJ: Digestive System LOC: C2-1 TOP: 9.3

KEY: Digestive Enzymes

**6.** ANS: B PTS: 1 DIF: K REF: 9

OBJ: Digestive System LOC: C1-1 TOP: 9.1

KEY: Digestive Enzymes

**7.** ANS: D PTS: 1 DIF: U REF: 9

OBJ: Digestive System LOC: C2-1 TOP: 9.3

KEY: Digestive Enzymes

**8.** ANS: C PTS: 1 DIF: K REF: 9

OBJ: Digestive System LOC: C1-8 TOP: 9.1

KEY: Digestive Tract

**9.** ANS: A PTS: 1 DIF: U REF: 9

OBJ: Digestive System LOC: C1-5 TOP: 9.2

KEY: Accessory Organs of Digestion

**10.** ANS: A PTS: 1 DIF: U REF: 9

OBJ: Digestive System LOC: C2-3 TOP: 9.2

KEY: Accessory Organs of Digestion

**11.** ANS: C PTS: 1 DIF: U REF: 9

OBJ: Digestive System LOC: C1-3 TOP: 9.2

KEY: Accessory Organs of Digestion

**12.** ANS: D PTS: 1 DIF: U REF: 9

OBJ: Digestive System LOC: C2-1 TOP: 9.3

KEY: Digestive Enzymes

**13.** ANS: D PTS: 1 DIF: HMP REF: 9

OBJ: Digestive System LOC: C2-1 TOP: 9.3

KEY: Digestive Enzymes

**14.** ANS: A PTS: 1 DIF: U REF: 9

OBJ: Digestive System LOC: C1-7 TOP: 9.1

KEY: Digestive Tract

**15.** ANS: D PTS: 1 DIF: U REF: 9

OBJ: Digestive System LOC: C2-1 TOP: 9.3

KEY: Digestive Enzymes

**16.** ANS: A PTS: 1 DIF: U REF: 9

OBJ: Digestive System LOC: C2-1 TOP: 9.3

KEY: Digestive Enzymes

**17.** ANS: C PTS: 1 DIF: U REF: 9

OBJ: Digestive System LOC: C1-7 TOP: 9.1

KEY: Digestive Tract

**18.** ANS: C PTS: 1 DIF: U REF: 9

OBJ: Digestive System LOC: C1-3 TOP: 9.2

KEY: Accessory Organs of Digestion

**19.** ANS: A PTS: 1 DIF: U REF: 9

OBJ: Digestive System LOC: C1-4 TOP: 9.2

KEY: Accessory Organs of Digestion

**20.** ANS: C PTS: 1 DIF: U REF: 9

OBJ: Digestive System LOC: C-S TOP: 9.2

KEY: Accessory Organs of Digestion

**21.** ANS: A PTS: 1 DIF: U REF: 9

OBJ: Digestive System LOC: C1-3 TOP: 9.2

KEY: Accessory Organs of Digestion

**22.** ANS: C PTS: 1 DIF: U REF: 9

OBJ: Digestive System LOC: C2-1 TOP: 9.3

KEY: Digestive Enzymes

**23.** ANS: A PTS: 1 DIF: U REF: 9

OBJ: Digestive System LOC: C2-1 TOP: 9.3

KEY: Digestive Enzymes

**24.** ANS: A PTS: 1 DIF: U REF: 9

OBJ: Digestive System LOC: C1-6 TOP: 9.4

KEY: Digestive System Disorders

**25.** ANS: B PTS: 1 DIF: U REF: 9

OBJ: Digestive System LOC: C2-1 TOP: 9.3

KEY: Digestive Enzymes