

Sample Test for University Entrance Exams

Biology

1. Which type of bond is responsible for formation of the primary structure of a protein?
 - A. peptide bond
 - B. H- bond
 - C. Ionic bond
 - D. glycosidic bond
2. Which one of the following molecules is a purine base?
 - A. cytosine
 - B. guanine
 - C. thymine
 - D. uracile
3. Which of the following carbohydrates yields two glucose molecules upon enzymatic hydrolysis?
 - A. cellulose
 - B. fructose
 - C. galactose
 - D. maltose
4. The 'signal recognition particle':
 - A. combines with the 'C- terminal end' of signal peptides
 - B. guides the ribosome to the ER
 - C. forms a channel in ER
 - D. attaches modified sugar units to the 'N- terminal end' of the peptide chain
 - E. helps the formation of ribosomes
5. During the conversion of pyruvate to acetyl coenzyme A
 - A. $\text{NADH}+\text{H}^+$ is produced
 - B. Citrate is produced
 - C. GTP is produced
 - D. ATP is needed
6. Which of the following shows the correct path of a protein, synthesised on the ER?
 - A. ER→ nucleus→ lysosomes
 - B. ER→ Golgi→ lysosomes
 - C. Golgi→ lysosomes→ER
 - D. Lysosomes→ Golgi→ ER
7. A cell is isolated and found to contain ribosomes and circular DNA. This cell is...
 - A. a bacterium
 - B. a prokaryotic cell
 - C. both A and B are correct
 - D. both A and B are false.

8. Which of the following occurs in meiosis but not in mitosis?
- A. formation of chiasma
 - B. disappearance of the nuclear membrane and nucleoli
 - C. formation of spindle apparatus
 - D. four daughter cells are produced- in males
9. Which one of the following statements is true?
- A. Rh + women can not have Rh - children
 - B. an Rh - child can not have two Rh + parents
 - C. an Rh - child can have Rh + sister
 - D. 100% Rh - children can not survive
10. Which of the following activities would be affected directly in a person with a diseased liver?
- A. regulation of blood sugar concentration
 - B. digestion of proteins
 - C. absorption of water and minerals from large intestine
 - D. digestion of carbohydrates
11. The functions of the lymphatic system are
- A. to absorb proteins from the digestive tract
 - B. to collect and return interstitial fluid to the blood
 - C. to carry out excretion
 - D. to pump blood into the heart
12. Antibodies are synthesized by
- A. B lymphocytes
 - B. Phagocytes
 - C. Helper T lymphocytes
 - D. Killer T lymphocytes
13. If ADH production is increased, the walls of the collecting ducts become* permeable and the urine becomes* concentrated
- A. more, more
 - B. less, less
 - C. more, less
 - D. less, more
14. Which of the following occurs in response to a stressful situation?
- A. increase in metabolic rate
 - B. vasodilation of blood vessels to stomach and skin
 - C. decrease in blood sugar level
 - D. all of the above
15. In the ear the transduction of mechanical energy in the form of sound waves into electrical energy of a receptor potential occurs in the
- A. sacculus
 - B. organ of Corti
 - C. semicircular canals
 - D. utriculus