

Biology HESI A2 Practice Questions

Section: HESI A2 Biology Exams • Total Questions: 10 • Format: Verified Q&A

1. Which characteristic is typically found in prokaryotic cells?

- (A) Have a nucleus
 - (B) Have a capsule
 - (C) Have membrane-bound organelles
 - (D) Cannot move on their own
-

2. What cellular appendage enables cells to move through their environments?

- (A) Flagellum
 - (B) Cell membrane
 - (C) Transport protein
 - (D) Receptor
-

3. Why is the nucleus important in a cell?

- (A) It stores the DNA.
 - (B) It provides structural support.
 - (C) It synthesizes proteins.
 - (D) It produces energy from food.
-

4. Which cellular component contributes to the protection, communication, and passage of substances into and out of the cell?

- (A) Nucleus
 - (B) Cell membrane
 - (C) Endoplasmic reticulum
 - (D) Cytoplasm
-

5. Which set is correctly listed for characteristic chromosome number, and most of their cells have a complete set of these chromosomes?

- (A) Genus, order, species, phylum
 - (B) Order, phylum, species, genus
 - (C) Species, order, phylum, genus
 - (D) Phylum, order, genus, species
-

6. Which of the following structures is not directly involved in translation?

- (A) tRNA
 - (B) mRNA
 - (C) ribosome
 - (D) DNA
-

7. Which option demonstrates complementary base pairing in DNA?

- (A) A and G
 - (B) A and C
 - (C) A and A
 - (D) A and T
-

8. Using the information provided in question #44, what would be the phenotype if the offspring is Bb?

- (A) Black
 - (B) Black and tan
 - (C) Tan
 - (D) Not enough information
-

9. Which of the following statements about antibiotics is incorrect?

- (A) They can interfere with the bacteria's ability to survive.
 - (B) They can affect how bacteria multiply.
 - (C) They can cause more bacteria to grow.
 - (D) They only work on bacteria.
-

10. In a population of dogs, fur color is controlled by two alleles: black (B) and tan (b). The black allele shows complete dominance. If a dog has a tan fur phenotype, what is its genotype?

- (A) BB
 - (B) Bb
 - (C) bb
 - (D) Not enough information
-