

NLN NEX Science Practice Test

Section: NLN NEX Science Exams • Total Questions: 10 • Format: Verified Q&A

1. If a scientist wanted to make multiple copies of a short DNA segment, which of the following techniques would be used?

- (A) Restriction Digest
 - (B) Polymerase Chain Reaction (PCR)
 - (C) Gel Electrophoresis
 - (D) Recombinant DNA Technology
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2. A buffer resists changes in the concentration of which ions?

- (A) Sodium (Na^+)
 - (B) Hydroxide (OH^-)
 - (C) Hydrogen (H^+)
 - (D) Potassium (K^+)
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3. During anaphase of mitosis, the sister chromatids split apart to go to the opposite end of the cell. What would happen to the daughter cells if a pair of sister chromatids failed to split in anaphase?

- (A) The pair of sister chromatids will be lost from both daughter cells
 - (B) Mitosis will halt, and no daughter cells will be created
 - (C) Each daughter cell will receive the correct number of chromosomes
 - (D) One daughter cell will receive an extra chromosome, and one will be short a chromosome
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4. Food is prevented from entering the trachea during swallowing by the

- (A) esophageal sphincter
 - (B) glottis
 - (C) pharynx
 - (D) epiglottis
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5. Which organ system uses keratin to protect the body from abrasion and microbes?

- (A) Integumentary
 - (B) Lymphatic
 - (C) Digestive
 - (D) Respiratory
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6. Milk, pure water, lemon juice, and gastric juice were tested using a pH meter. Results are summarized in the chart below. Which substance is the most acidic?

- (A) Gastric juice
 - (B) Milk
 - (C) Pure water
 - (D) Lemon juice
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7. Which of these years had the biggest increase in nesting sites over the preceding year?

The starling, a bird species imported from Europe, competes with the native bluebird for food and nesting sites. In order to increase the number of nesting sites, an environmental group set up nesting boxes with holes small enough to exclude the starlings. Below is a graph showing the yearly effect of the special nesting boxes for bluebirds.

- (A) 1992
 - (B) 1990
 - (C) 1993
 - (D) 1942
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8. Which hormones are responsible for controlling the menstrual cycle?

- (A) Growth hormone releasing hormone, somatostatin, and growth hormone
 - (B) Antidiuretic hormone and oxytocin
 - (C) Thyroid releasing hormone, thyroid stimulating hormone, thyroxine, and triiodothyronine
 - (D) Luteinizing hormone, follicle stimulating hormone, estrogen, and progesterone
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9. Which letter indicates the organ of dynamic equilibrium?

- (A) D
 - (B) B
 - (C) C
 - (D) A
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10. A red flower (RR) and a white flower (WW) were cross-pollinated. The result of this cross was four new flowers that were all pink (RW). This is best explained by

- (A)** non-disjunction
- (B)** multiple alleles
- (C)** mutation
- (D)** codominance