

1. A key issue being considered by the bioethics program known as ELSI is
 - A. maintaining the privacy of genetic information
 - B. the safe and effective introduction of genetic information in a clinical setting
 - C. the fair use of genetic information
 - D. professional and public education
 - E. all of the above

2. The two hit model for cancer development suggests that
 - A. all types of cancer are hereditary
 - B. cancers are caused by two mutational events in a cell's life
 - C. all of the above
 - D. none of the above

3. The hereditary predisposition to cancer is related to
 - A. inheriting one mutant allele of a cancer-causing gene
 - B. inheriting mutant genes for immune system function
 - C. exposure to mutagenic agents in the environment
 - D. none of the above

4. Retroviruses are responsible for which of the following conditions?
 - A. Rous sarcoma
 - B. AIDS
 - C. feline leukemia
 - D. all of the above

5. Which of the following is a protooncogene that functions as a nuclear transcription factor?
 - A. myc
 - B. fos
 - C. jun
 - D. all of the above

6. A mutator gene is likely to be involved in which of these normal cellular activities?
 - A. DNA replication
 - B. mismatch repair
 - C. nucleotide excision repair
 - D. all of the above
 - E. none of the above

7. To calculate the allelic frequencies for a particular gene in a population accurately, a population geneticist can
 - A. observe the number of different genotypes at the locus
 - B. calculate the genotypic frequency of the locus
 - C. estimate the number of alleles at the locus
 - D. both A and B

8. If the genotypic frequencies for a particular allele are 0.635 homozygous dominant, 0.430 heterozygotes, and 0.125 homozygous recessives, what is the allelic frequency of the recessive allele?
 - A. 0.125
 - B. 0.340
 - C. 0.430
 - D. 0.555
 - E. 1.000