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CLASS XII BIOLOGY

1 Which enzyme will be produced in a cell in which there is a nonsense mutation in the lac y gene?

2 How does transfer of genetic information from one bacterium to another takes place by transduction process?

3 How are repressible enzymes formed?

4 What is reverse transcriptase?

5 How is expression of transgene in target tissue in transgenics determined?

6 What are methylated genes?

7 What is teminism?

8 Describe the following operons a)inducible operon b)repressible operon c)tryptophan operon

9 How does telomere repetitive DNA sequences control the functioning of eukaryotic chromosomes?

10 What is point mutation?

11 What is wobble hypothesis?

12 What is one gene one enzyme hypothesis?

13 Give the difference between A,B and Z DNA?

14 What is CAT box?

15How minisatellites differ from microsatellites ?

Text for assertion reasoning (question 16-25)

16 The complementary strand is unlikely to code for a useful protein.

17 The rRNA of two organisms is compared to detect their relationship.

18 Alu repeats in human genome are referred to as selfish DNA.

19 Some genes in human genome are referred as pseudogenes.

21 There are only 20 amino acids in the biological system.

22 DNA code must be a triplet code.

23 SV40 is useful for genetics study.

24 The control of gene expression is more complex in eukaryotes than in prokaryotes.

25 Heterochromatin stains darker in interphase.

26 In RNA thiamine is replaced by

a)uracil b)adenine c)thiamine d)guanine

27 Which of the following is non genetic and is utilized for protein synthesis

a)tRNA b)ZRNA c) mRNA d)none of these

28 Which one of the following is not a part of a transcription unit In DNA

a) a promoter b) the structural gene c) the inducer d) a terminator

29 Structural element of chromatin is a)histone b)acid protein and DNA c)nuclear matrix d)nucleosomes

30 Some amino acids are coded by more than one codon hence the code is

a)unambiguous b)degenerate c)universal d)initiator