NOVA SCOTIA ADVANCED BIOLOGY 12 · UNIT C

Genetic Continuity — Practice Test

Nova Scotia Advanced Biology 12 • 25 questions

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **In a cross 400 offspring are produced and three quarters are expected to show the dominant trait. The expected number showing the dominant trait is**

ANSWER _____

Understand It with Pulse | Flag a mistake

2 **In a cross 200 offspring are produced and three quarters are expected to show the dominant trait. The expected number showing the dominant trait is**

ANSWER _____

Understand It with Pulse | Flag a mistake

3 **In a cross 800 offspring are produced and three quarters are expected to show the dominant trait. The expected number showing the dominant trait is**

ANSWER _____

Understand It with Pulse | Flag a mistake

4 **In a dihybrid cross 1600 offspring are produced. Nine sixteenths are expected to show both dominant traits. The expected number is**

ANSWER _____

Understand It with Pulse | Flag a mistake

5 **In a dihybrid cross 800 offspring are produced. Nine sixteenths are expected to show both dominant traits. The expected number is**

ANSWER _____

Understand It with Pulse | Flag a mistake

6 **In a dihybrid cross 3200 offspring are produced. Nine sixteenths are expected to show both dominant traits. The expected number is**

ANSWER _____

Understand It with Pulse | Flag a mistake

7 **In a DNA sample adenine makes up 25 percent of the bases. The percent that is cytosine is**

ANSWER _____

Understand It with Pulse | Flag a mistake

8 **In a DNA sample adenine makes up 15 percent of the bases. The percent that is cytosine is**

ANSWER _____

Understand It with Pulse | Flag a mistake

9 **In a DNA sample adenine makes up 45 percent of the bases. The percent that is cytosine is**

ANSWER _____

Understand It with Pulse | Flag a mistake

10 **A DNA coding region has 99 bases. The number of amino acids coded is**

ANSWER _____

Understand It with Pulse | Flag a mistake

11 **A DNA coding region has 150 bases. The number of amino acids coded is**

ANSWER _____

Understand It with Pulse | Flag a mistake

12 **A DNA coding region has 75 bases. The number of amino acids coded is**

ANSWER _____

Understand It with Pulse | Flag a mistake

13 **An organism is heterozygous at 6 loci. The number of different gamete types it can produce is**

ANSWER _____

Understand It with Pulse | Flag a mistake

14 **An organism is heterozygous at 7 loci. The number of different gamete types it can produce is**

ANSWER _____

Understand It with Pulse | Flag a mistake

15 **An organism is heterozygous at 3 loci. The number of different gamete types it can produce is**

ANSWER _____

Understand It with Pulse | Flag a mistake

16 **In a population 16 percent show a recessive trait. The percent of recessive alleles is**

ANSWER _____

Understand It with Pulse | Flag a mistake

17 **In a population 25 percent show a recessive trait. The percent of recessive alleles is**

ANSWER _____

Understand It with Pulse | Flag a mistake

18 **In a population 4 percent show a recessive trait. The percent of recessive alleles is**

ANSWER _____

Understand It with Pulse | Flag a mistake

19 **A dihybrid cross between two heterozygotes gives a phenotypic ratio of**

A 9 to 3 to 3 to 1

B 3 to 1

C 1 to 1

D 9 to 1

Understand It with Pulse | Flag a mistake

20 **Linked genes are inherited together because they are on the**

A same allele

B same chromosome

C different chromosomes

D sex chromosome only

Understand It with Pulse | Flag a mistake

21 **A frameshift mutation is caused by an insertion or deletion that**

- A changes one base only
- B removes a chromosome
- C shifts the reading frame of codons
- D doubles a gene

Understand It with Pulse | Flag a mistake

22 **Messenger RNA is processed before leaving the nucleus by removing**

- A exons
- B ribosomes
- C codons
- D introns

Understand It with Pulse | Flag a mistake

23 **The genetic code is described as universal because the same codons code for the same amino acids in**

- A nearly all organisms
- B one species only
- C plants only
- D bacteria only

Understand It with Pulse | Flag a mistake

24 **In codominance both alleles are**

- A hidden in the heterozygote
- B expressed in the heterozygote
- C lost
- D dominant in turn

Understand It with Pulse | Flag a mistake

25 **A carrier of a recessive disorder has the genotype**

A homozygous recessive

B homozygous dominant

C heterozygous

D haploid

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	300	**10.**	33	**19.**	A
2.	150	**11.**	50	**20.**	B
3.	600	**12.**	25	**21.**	C
4.	900	**13.**	64	**22.**	D
5.	450	**14.**	128	**23.**	A
6.	1800	**15.**	8	**24.**	B
7.	25	**16.**	40	**25.**	C
8.	35	**17.**	50		
9.	5	**18.**	20		

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