FINAL EXAM - PRACTICE TEST | NEW BRUNSWICK BIOLOGY 121-122 · FINAL EXAM · 50 QUESTIONS

Final Exam — Practice Test

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 **A plant cell has 30 chromosomes. After one mitotic division each daughter cell has how many chromosomes**

ANSWER _____

Understand It with Pulse | Flag a mistake

2 **Two heterozygous parents Aa cross. The percent of offspring expected to be homozygous dominant is**

ANSWER _____

Understand It with Pulse | Flag a mistake

3 **A population of 400 doubles twice. The final population is**

ANSWER _____

Understand It with Pulse | Flag a mistake

4 **An action potential rises from -70 to +30 millivolts. The total change in millivolts is**

ANSWER _____

Understand It with Pulse | Flag a mistake

5 **Human gestation lasts about 40 weeks. In days this is about**

ANSWER _____

Understand It with Pulse | Flag a mistake

6 **A DNA sample has 150 cytosine bases. By base pairing the number of guanine bases is**

ANSWER _____

Understand It with Pulse | Flag a mistake

7 **A test cross of Aa with aa produces 80 offspring. The expected number showing the dominant trait is**

ANSWER _____

Understand It with Pulse | Flag a mistake

8 **Two populations are separated for 10000 years. The number of populations is**

ANSWER _____

Understand It with Pulse | Flag a mistake

9 **Insulin lowers blood glucose from 8 to 5 millimoles per litre. The decrease is**

ANSWER _____

Understand It with Pulse | Flag a mistake

10 **Twins occur in 3 of 100 births. In 1000 births the expected number of twin births is**

ANSWER _____

Understand It with Pulse | Flag a mistake

11 **Crossing over occurs during prophase of which division**

- A mitosis
- B meiosis II
- C cytokinesis
- D meiosis I

Understand It with Pulse | Flag a mistake

12 **A DNA codon has 3 bases. The number of different codons possible from 4 bases is**

ANSWER _____

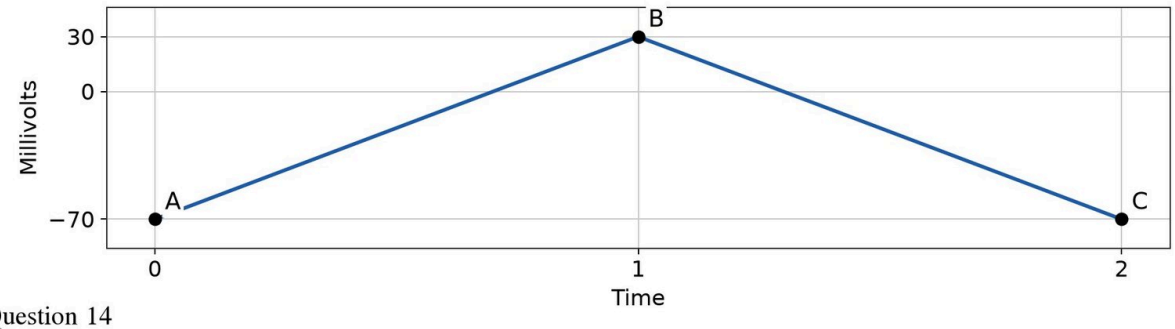
Understand It with Pulse | Flag a mistake

13 **A population starts at 50 and grows by 10 each year for 5 years. The final population is**

ANSWER _____

Understand It with Pulse | Flag a mistake

14 **The graph shows membrane potential rising from -70 to 30 millivolts. The peak value in millivolts is**



Question 14

The graph shows membrane potential rising from negative 70 to 30 millivolts. The peak value in millivolts is

ANSWER

Understand It with Pulse | Flag a mistake

15 **A zygote has 46 chromosomes. Each cell of the blastocyst normally has how many chromosomes**

ANSWER

Understand It with Pulse | Flag a mistake

16 **DNA is made of two strands held together by**

A peptide bonds

B hydrogen bonds

C ionic bonds

D covalent bonds only

Understand It with Pulse | Flag a mistake

17 **Transcription produces which molecule from a DNA template**

A mRNA

B tRNA only

C DNA

D protein

Understand It with Pulse | Flag a mistake

18 **Natural selection requires variation, inheritance and**

A differential survival

B identical offspring

C no competition

D unlimited resources

Understand It with Pulse | Flag a mistake

19 **The central nervous system consists of the brain and**

A nerves only

B sense organs

C glands

D spinal cord

Understand It with Pulse | Flag a mistake

20 **The female gamete is the**

A sperm

B zygote

C ovum

D embryo

Understand It with Pulse | Flag a mistake

21 **An animal has 18 chromosomes in body cells. The number in a gamete is**

ANSWER _____

Understand It with Pulse | Flag a mistake

22 **Translation occurs at the**

A nucleus only

B ribosome

C Golgi body

D lysosome

Understand It with Pulse | Flag a mistake

23 **Fossils provide evidence for evolution because they show**

A identical species

B change over time

C no extinction

D constant climate

Understand It with Pulse | Flag a mistake

24 **The nervous system cell that carries impulses is the**

A neuron

B nephron

C alveolus

D osteocyte

Understand It with Pulse | Flag a mistake

25 **LH triggers which event in females**

A menstruation

B fertilisation

C ovulation

D implantation

Understand It with Pulse | Flag a mistake

26 **A plant cell has 16 chromosomes. After one mitotic division each daughter cell has how many chromosomes**

ANSWER _____

Understand It with Pulse | Flag a mistake

27 **A mutation that changes one base is called a**

A point mutation

B frameshift only

C chromosomal deletion

D translocation

Understand It with Pulse | Flag a mistake

28 **Analogous structures have similar function but different**

A function

B habitat

C size

D origin

Understand It with Pulse | Flag a mistake

29 **Myelin increases impulse speed by**

A slowing conduction

B saltatory conduction

C blocking conduction

D reversing conduction

Understand It with Pulse | Flag a mistake

30 **A sexually transmitted infection caused by bacteria can often be treated with**

A antivirals only

B vaccines only

C antibiotics

D surgery

Understand It with Pulse | Flag a mistake

31 **A human body cell has 38 chromosomes. After mitosis each daughter cell has how many chromosomes**

ANSWER _____

Understand It with Pulse | Flag a mistake

32 **Two heterozygous parents Bb cross and have 200 offspring. The expected number showing the recessive trait is**

ANSWER _____

Understand It with Pulse | Flag a mistake

33 **A population of 1000 falls by 25 percent. The final population is**

ANSWER _____

Understand It with Pulse | Flag a mistake

34 **A resting potential is -70 millivolts and threshold is -55 millivolts. The difference in millivolts is**

ANSWER _____

Understand It with Pulse | Flag a mistake

35 **Gestation of 40 weeks is 10 lunar months of 4 weeks. The number of lunar months is**

ANSWER _____

Understand It with Pulse | Flag a mistake

36 **One cell divides by mitosis 2 times in succession. The number of cells produced is**

ANSWER _____

Understand It with Pulse | Flag a mistake

37

A codon table has 64 codons. The number of stop codons is

Question 37

A codon table has 64 codons. The number of stop codons is

ANSWER

Understand It with Pulse | Flag a mistake

38

Two species share 90 percent of their DNA. The percent different is

ANSWER

Understand It with Pulse | Flag a mistake

39

A neuron fires 50 times in 10 seconds. The firing rate per second is

ANSWER

Understand It with Pulse | Flag a mistake

40

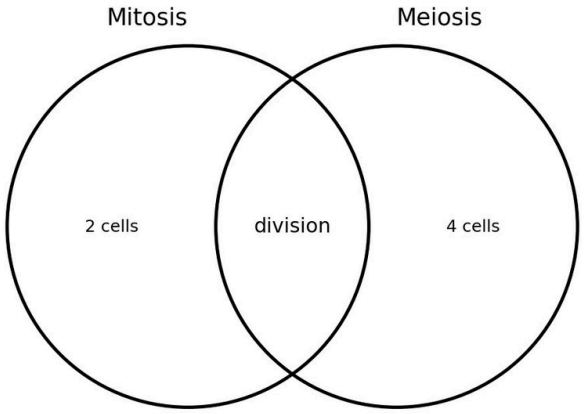
A method is 98 percent effective. The failure rate in percent is

ANSWER

Understand It with Pulse | Flag a mistake

41

The diagram compares mitosis and meiosis. The shared region describes a feature of both divisions. That feature is



Question 41

The diagram compares mitosis and meiosis. The shared region describes a feature of both divisions. That feature is

A) gamete formation only

B) crossing over only

C) fertilisation

D) chromosome separation

A gamete formation only

B crossing over only

C fertilisation

D chromosome separation

Understand It with Pulse

Flag a mistake

42 **A dominant allele is expressed when present in**

A no copies

B one or two copies

C two copies only

D neither copy

Understand It with Pulse | Flag a mistake

43 **Darwin proposed natural selection after observing finches in the**

A Galapagos Islands

B Hawaiian Islands

C Canary Islands

D Falkland Islands

Understand It with Pulse | Flag a mistake

44 **Acetylcholine is an example of a**

A hormone only

B enzyme

C neurotransmitter

D receptor

Understand It with Pulse | Flag a mistake

45 **The endometrium is the lining of the**

A ovary

B vagina

C uterus

D fallopian tube

Understand It with Pulse | Flag a mistake

46 **The structure that pulls chromatids apart is the**

A spindle

B ribosome

C nucleolus

D cell wall

Understand It with Pulse | Flag a mistake

47 **The start codon AUG codes for which amino acid**

A alanine

B glycine

C serine

D methionine

Understand It with Pulse | Flag a mistake

48 **The first to propose evolution by natural selection with Wallace was**

A Lamarck

B Darwin

C Mendel

D Linnaeus

Understand It with Pulse | Flag a mistake

49 **The hypothalamus links the nervous system to the**

A digestive system

B circulatory system

C endocrine system

D immune system

Understand It with Pulse | Flag a mistake

50 **Breastfeeding is stimulated by the hormone**

A oestrogen

B progesterone

C prolactin

D testosterone

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	30	**18.**	A	**35.**	10
2.	25	**19.**	D	**36.**	4
3.	1600	**20.**	C	**37.**	3
4.	100	**21.**	9	**38.**	10
5.	280	**22.**	B	**39.**	5
6.	150	**23.**	B	**40.**	2
7.	40	**24.**	A	**41.**	D
8.	2	**25.**	C	**42.**	B
9.	3	**26.**	16	**43.**	A
10.	30	**27.**	A	**44.**	C
11.	D	**28.**	D	**45.**	C
12.	64	**29.**	B	**46.**	A
13.	100	**30.**	C	**47.**	D
14.	30	**31.**	38	**48.**	B
15.	46	**32.**	50	**49.**	C
16.	B	**33.**	750	**50.**	C
17.	A	**34.**	15		

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