SASKATCHEWAN BIOLOGY 30 · FINAL EXAM

Final Exam — Practice Test

Saskatchewan Biology 30 • 50 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 **Natural selection acts on**

- **A** wishes of organisms
- **B** variation already present in a population
- **C** only mutations
- **D** only fossils

Understand It with Pulse | Flag a mistake

2 **Prokaryotic cells differ from eukaryotic cells mainly because they lack a**

A cell membrane

B membrane bound nucleus

C cytoplasm

D ribosome

Understand It with Pulse | Flag a mistake

3 **In a cross of two heterozygotes for a recessive trait, the expected ratio of offspring showing the trait is**

A 1 in 2

B 1 in 4

C 3 in 4

D 4 in 4

Understand It with Pulse | Flag a mistake

4 **PCR is used mainly to**

A cut proteins

B make many copies of DNA

C sequence RNA only

D clone whole animals

Understand It with Pulse | Flag a mistake

5 **Survival and reproduction of organisms best suited to their environment is called**

A fossil

B species

C natural selection

D variation

Understand It with Pulse | Flag a mistake

6 **A cell without a membrane bound nucleus is called**

A organelle

B mitochondrion

C prokaryote

D chloroplast

Understand It with Pulse | Flag a mistake

7 **DNA base pairing pairs adenine with**

A guanine

B cytosine

C uracil

D thymine

Understand It with Pulse | Flag a mistake

8 **Gel electrophoresis separates DNA pieces by**

A colour

B temperature

C mass of the whole organism

D size

Understand It with Pulse | Flag a mistake

9 **Which is the best evidence for common ancestry**

A similar habitats only

B similar names

C similar size only

D similar DNA and homologous structures

Understand It with Pulse | Flag a mistake

10 **A cell with a membrane bound nucleus and organelles is called**

A eukaryote

B mitochondrion

C chloroplast

D taxonomy

Understand It with Pulse | Flag a mistake

11 **The alleles an organism has for a trait is called**

A dominant allele

B genotype

C recessive allele

D homozygous

Understand It with Pulse | Flag a mistake

12 **A GMO is an organism whose DNA has been**

A left unchanged

B changed by genetic engineering

C copied only

D removed

Understand It with Pulse | Flag a mistake

13 **Preserved evidence of past life is called**

A variation

B mutation

C fossil

D gene flow

Understand It with Pulse | Flag a mistake

14 **A specialised structure inside a cell is called**

A chloroplast

B taxonomy

C organelle

D domain

Understand It with Pulse | Flag a mistake

15 **The observable traits of an organism is called**

A recessive allele

B homozygous

C heterozygous

D phenotype

Understand It with Pulse | Flag a mistake

16 **DNA fingerprinting can identify a person because DNA patterns are**

A the same for everyone

B changed by diet

C only in blood

D unique except for identical twins

Understand It with Pulse | Flag a mistake

17 **Genetic drift has its largest effect in**

A large populations

B only plants

C only animals

D small populations

Understand It with Pulse | Flag a mistake

18 **The organelle that is the main site of cellular respiration is called**

A mitochondrion

B taxonomy

C domain

D kingdom

Understand It with Pulse | Flag a mistake

19 **Translation happens at the**

A nucleus only

B Golgi apparatus

C ribosome

D lysosome

Understand It with Pulse | Flag a mistake

20 **In gel electrophoresis, a DNA fragment of 200 base pairs and a fragment of 900 base pairs are run together. The fragment that travels farther through the gel is**

- A the 200 base pair fragment
- B the 900 base pair fragment
- C both travel the same distance
- D neither fragment moves

Understand It with Pulse | Flag a mistake

21 **Differences among individuals in a population is called**

- A gene flow
- B genetic drift
- C variation
- D speciation

Understand It with Pulse | Flag a mistake

22 **The organelle that is the site of photosynthesis is called**

A domain

B kingdom

C chloroplast

D binomial nomenclature

Understand It with Pulse | Flag a mistake

23 **A genotype of Aa is**

A heterozygous

B homozygous dominant

C homozygous recessive

D a phenotype

Understand It with Pulse | Flag a mistake

24 **An organism whose DNA has been changed by genetic engineering is called**

- **A** DNA fingerprinting
- **B** recombinant DNA
- **C** biotechnology
- **D** GMO

Understand It with Pulse | Flag a mistake

25 **Movement of alleles between populations is called**

- **A** gene flow
- **B** speciation
- **C** evolution
- **D** natural selection

Understand It with Pulse | Flag a mistake

26 **The broadest level of classification is called**

A domain

B binomial nomenclature

C cell

D prokaryote

Understand It with Pulse | Flag a mistake

27 **A pedigree shows a trait appearing in every generation and affecting sons and daughters equally. The trait is most likely**

A dominant

B recessive and sex linked

C caused by the environment only

D a mutation that cannot be passed on

Understand It with Pulse | Flag a mistake

28 **Two cells are produced by cloning a single skin cell. Compared with the skin cell, the clones are**

A genetically identical to it

B genetically half like it

C from a different species

D unable to divide

Understand It with Pulse | Flag a mistake

29 **A small group of birds colonizes an island. By chance, the allele frequencies in the new group differ from the mainland group. This is an example of**

A the founder effect

B natural selection

C artificial selection

D speciation by fossils

Understand It with Pulse | Flag a mistake

30 **Which list is in order from smallest to largest**

- **A** organ, tissue, cell, organ system
- **B** cell, tissue, organ, organ system
- **C** tissue, organ system, cell, organ
- **D** organ system, organ, tissue, cell

Understand It with Pulse | Flag a mistake

31 **For a genetic cross, 3 out of every 16 offspring are expected to show a recessive trait. The percent expected to show it is ____**

ANSWER _____

Understand It with Pulse | Flag a mistake

32 **A bacterial culture starts with 20 cells and doubles 4 times. The final number of cells is ____**

ANSWER _____

Understand It with Pulse | Flag a mistake

33 **Out of 200 students surveyed, 40 chose the same answer. The percent who chose it is _____**

ANSWER _____

Understand It with Pulse | Flag a mistake

34 **Out of 325 students surveyed, 65 chose the same answer. The percent who chose it is _____**

ANSWER _____

Understand It with Pulse | Flag a mistake

35 **For a genetic cross, 7 out of every 16 offspring are expected to show a recessive trait. The percent expected to show it is _____**

ANSWER _____

Understand It with Pulse | Flag a mistake

36 **A bacterial culture starts with 45 cells and doubles 2 times. The final number of cells is _____**

ANSWER _____

Understand It with Pulse | Flag a mistake

37 **Out of 400 students surveyed, 80 chose the same answer. The percent who chose it is _____**

ANSWER _____

Understand It with Pulse | Flag a mistake

38 **Out of 275 students surveyed, 55 chose the same answer. The percent who chose it is _____**

ANSWER _____

Understand It with Pulse | Flag a mistake

39 **For a genetic cross, 13 out of every 16 offspring are expected to show a recessive trait. The percent expected to show it is _____**

ANSWER _____

Understand It with Pulse | Flag a mistake

40 **A bacterial culture starts with 22 cells and doubles 3 times. The final number of cells is _____**

ANSWER _____

Understand It with Pulse | Flag a mistake

41 **Out of 240 students surveyed, 60 chose the same answer. The percent who chose it is ____**

ANSWER _____

Understand It with Pulse | Flag a mistake

42 **Out of 75 students surveyed, 15 chose the same answer. The percent who chose it is ____**

ANSWER _____

Understand It with Pulse | Flag a mistake

43 **For a genetic cross, 3 out of every 5 offspring are expected to show a recessive trait. The percent expected to show it is ____**

ANSWER _____

Understand It with Pulse | Flag a mistake

44 **A bacterial culture starts with 32 cells and doubles 3 times. The final number of cells is ____**

ANSWER _____

Understand It with Pulse | Flag a mistake

45 **Out of 120 students surveyed, 30 chose the same answer. The percent who chose it is _____**

ANSWER _____

Understand It with Pulse | Flag a mistake

46 **Out of 300 students surveyed, 75 chose the same answer. The percent who chose it is _____**

ANSWER _____

Understand It with Pulse | Flag a mistake

47 **For a genetic cross, 3 out of every 10 offspring are expected to show a recessive trait. The percent expected to show it is _____**

ANSWER _____

Understand It with Pulse | Flag a mistake

48 **A bacterial culture starts with 8 cells and doubles 5 times. The final number of cells is _____**

ANSWER _____

Understand It with Pulse | Flag a mistake

49 **Out of 280 students surveyed, 70 chose the same answer. The percent who chose it is _____**

ANSWER _____

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50 **Out of 180 students surveyed, 45 chose the same answer. The percent who chose it is _____**

ANSWER _____

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	B	**18.**	A	**35.**	43.75
2.	B	**19.**	C	**36.**	180
3.	B	**20.**	A	**37.**	20
4.	B	**21.**	C	**38.**	20
5.	C	**22.**	C	**39.**	81.25
6.	C	**23.**	A	**40.**	176
7.	D	**24.**	D	**41.**	25
8.	D	**25.**	A	**42.**	20
9.	D	**26.**	A	**43.**	60
10.	A	**27.**	A	**44.**	256
11.	B	**28.**	A	**45.**	25
12.	B	**29.**	A	**46.**	25
13.	C	**30.**	B	**47.**	30
14.	C	**31.**	18.75	**48.**	256
15.	D	**32.**	320	**49.**	25
16.	D	**33.**	20	**50.**	25
17.	D	**34.**	20		

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