QUEBEC ENVIRONMENTAL SCIENCE AND TECHNOLOGY, SECONDARY IV · UNIT B

Living World and the Environment — Practice Test

Quebec Environmental Science and Technology, Secondary IV • 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 **A field study counts 240 plants in an area of 60 m². The population density, in plants per m², is**

ANSWER _____

Understand It with Pulse | Flag a mistake

2 **A meadow fixes 900 tonnes of carbon in a year and releases 720 tonnes. Its net carbon storage, in tonnes, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

3 **Each person in a community has an ecological footprint of 3 hectares. For 40 people the total footprint, in hectares, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

4 **A disturbance can change a community and lead to ecological succession as a new**

- A species disappears forever
- B soil is created
- C balance is re-established
- D climate is fixed

Understand It with Pulse | Flag a mistake

5 **A gene is a segment of DNA that carries instructions for a**

- A rock type
- B soil type
- C character trait
- D wind speed

Understand It with Pulse | Flag a mistake

6 **A trophic relationship describes feeding links that form a**

- A rock layer
- B wind pattern
- C soil profile
- D food web

Understand It with Pulse | Flag a mistake

7 **An allele is one of the possible versions of a**

- A cell
- B organ
- C tissue
- D gene

Understand It with Pulse | Flag a mistake

8 **An ecological footprint measures the productive land needed to support a standard of living and to**

A grow its food only

B build its homes only

C power its cars only

D absorb its waste

Understand It with Pulse | Flag a mistake

9 **An organism with two identical alleles for a gene is**

A heterozygous for that gene

B homozygous for that gene

C dominant for that gene

D recessive for that gene

Understand It with Pulse | Flag a mistake

10 **Bioaccumulation is the rise in concentration of a substance**

A along a river only

B along a road only

C along a fault only

D along a food chain

Understand It with Pulse | Flag a mistake

11 **Bioconcentration is the rise in concentration of a substance**

A in a rock over time

B in air over time

C inside an organism over time

D in soil over time

Understand It with Pulse | Flag a mistake

12 **Biodiversity describes the variety of species and their relative**

A colour in a community

B abundance in a community

C size in a community

D age in a community

Understand It with Pulse | Flag a mistake

13 **Chemical recycling returns nutrients to the environment mainly through**

A predators only

B wind only

C decomposers and microorganisms

D rain only

Understand It with Pulse | Flag a mistake

14 **Contaminants in ecotoxicology include substances that**

A feed living organisms

B harm living organisms

C cool living organisms

D dry living organisms

Understand It with Pulse | Flag a mistake

15 **Dominance is observed when a dominant allele is expressed to the detriment of the**

A dominant allele

B gene

C recessive allele

D cell

Understand It with Pulse | Flag a mistake

16 **Ecotoxicology in Environmental Science and Technology includes the study of contaminants and their**

A long term effects on ecosystems

B short term colour changes

C effects on rocks only

D effects on clouds only

Understand It with Pulse | Flag a mistake

17 **Genotype describes the alleles an organism carries, while phenotype describes its**

A observable traits

B age

C mass

D location

Understand It with Pulse | Flag a mistake

18 **Heredity is the transmission of character traits from parents to**

A rocks

B offspring

C soil

D water

Understand It with Pulse | Flag a mistake

19 **Producers hold 8000 kilojoules of energy. If 10 percent passes to the next trophic level, the energy there, in kilojoules, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

20 **A field study counts 300 plants in an area of 50 m². The population density, in plants per m², is**

ANSWER _____

Understand It with Pulse | Flag a mistake

21 **A meadow fixes 700 tonnes of carbon in a year and releases 550 tonnes. Its net carbon storage, in tonnes, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

22 **Each person in a community has an ecological footprint of 2 hectares. For 60 people the total footprint, in hectares, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

23 **A field study counts 180 plants in an area of 90 m². The population density, in plants per m², is**

ANSWER _____

Understand It with Pulse | Flag a mistake

24 **A meadow fixes 1000 tonnes of carbon in a year and releases 800 tonnes. Its net carbon storage, in tonnes, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

25

Each person in a community has an ecological footprint of 4 hectares. For 25 people the total footprint, in hectares, is

ANSWER

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	4	**10.**	D	**19.**	800
2.	180	**11.**	C	**20.**	6
3.	120	**12.**	B	**21.**	150
4.	C	**13.**	C	**22.**	120
5.	C	**14.**	B	**23.**	2
6.	D	**15.**	C	**24.**	200
7.	D	**16.**	A	**25.**	100
8.	D	**17.**	A		
9.	B	**18.**	B		

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