NOVA SCOTIA ADVANCED BIOLOGY 11 · FINAL EXAM

Final Exam — Practice Test

Nova Scotia Advanced Biology 11 • 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 **A sample of 6 grams of tissue uses 45 units of oxygen per gram. The total, in units, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

2 **A transect counts 144 organisms across 12 equal sections. The average per section is**

ANSWER _____

Understand It with Pulse | Flag a mistake

3 **A resting heart rate is 70 beats per minute and an active rate is 130 beats per minute. The increase is**

ANSWER _____

Understand It with Pulse | Flag a mistake

4 **An advanced field study measures 10000 units of producer energy. At 10 percent transfer, the primary consumer level holds, in units**

ANSWER _____

Understand It with Pulse | Flag a mistake

5 **A hypothesis in an advanced investigation is a**

A testable prediction

B proven fact

C random guess with no basis

D final conclusion

Understand It with Pulse | Flag a mistake

6 **A collection grows from 60 species to 75 species. The increase is**

ANSWER _____

Understand It with Pulse | Flag a mistake

7 **A heart beats 75 times per minute and each beat moves 70 millilitres. The volume per minute, in millilitres, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

8 **A K selected species typically has**

A many offspring and no care

B rapid growth always

C short life only

D few offspring and much parental care

Understand It with Pulse | Flag a mistake

9 **A rate graph that levels off suggests the enzyme is**

A denatured always

B absent

C inhibited fully

D saturated with substrate

Understand It with Pulse | Flag a mistake

10 **A lichen is a partnership between a fungus and a**

A animal

B bacterium only

C moss only

D photosynthetic partner

Understand It with Pulse | Flag a mistake

11 **A synapse is a junction where a signal passes between**

- A neurons
- B bones
- C muscles only
- D blood cells

Understand It with Pulse | Flag a mistake

12 **A pond holds 3000 units of producer energy and 10 percent passes on. The herbivore energy, in units, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

13 **A valid control in an enzyme experiment**

A changes every factor

B removes all enzymes

C isolates the effect of the variable tested

D adds extra substrate

Understand It with Pulse | Flag a mistake

14 **A prokaryote that makes food by photosynthesis is a**

A fungus

B protozoan

C cyanobacterium

D alga only

Understand It with Pulse | Flag a mistake

15 **Antidiuretic hormone increases water reabsorption in the**

A liver

B lung

C skin

D kidney

Understand It with Pulse | Flag a mistake

16 **A population pyramid with a wide base shows a population that is**

A shrinking

B growing

C stable

D extinct

Understand It with Pulse | Flag a mistake

17 **In a chloroplast, light dependent reactions occur in the**

A stroma only

B cell wall

C vacuole

D thylakoid membranes

Understand It with Pulse | Flag a mistake

18 **A survey lists 18 genera and each genus has 2 species recorded. The species total is**

ANSWER _____

Understand It with Pulse | Flag a mistake

19 **Deoxygenated blood enters the right atrium through the**

A aorta

B vena cava

C pulmonary vein

D coronary artery

Understand It with Pulse | Flag a mistake

20 **A trophic cascade happens when a change at one level affects**

A other levels in the food web

B only producers

C only soil

D only climate

Understand It with Pulse | Flag a mistake

21 **Competitive inhibition happens when an inhibitor binds to the**

A ribosome

B active site

C cell wall

D nucleus

Understand It with Pulse | Flag a mistake

22 **Analogous structures arise by**

A common ancestry always

B mutation only

C convergent evolution

D migration only

Understand It with Pulse | Flag a mistake

23 **A heart pumps about 4800 millilitres of blood per minute. If 75 percent goes to muscles, the muscle flow, in millilitres per minute, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

24 **An r selected species typically has**

A slow reproduction and long life

B no reproduction

C large body size only

D rapid reproduction and short life

Understand It with Pulse | Flag a mistake

25 **An advanced investigation measures 15 grams of leaf tissue producing 24 units of oxygen per gram. The total oxygen, in units, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

26 **A survey area holds 150 individuals of one species. Researchers sample 5 equal quadrats. The average per quadrat is**

ANSWER _____

Understand It with Pulse | Flag a mistake

27 **Cardiac output is about 6000 millilitres per minute. If 60 percent is directed to the gut after a meal, the gut flow, in millilitres per minute, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

28 **A mark recapture study marks 30 animals and later recaptures 90 animals of which 10 were marked. Using the simple Lincoln index, the estimate is**

ANSWER _____

Understand It with Pulse | Flag a mistake

29 **A sample of 10 grams of tissue uses 28 units of oxygen per gram. The total, in units, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

30 **A survey area holds 200 individuals of one species. Researchers sample 4 equal quadrats. The average per quadrat is**

ANSWER _____

Understand It with Pulse | Flag a mistake

31 **A student resting heart rate is 76 beats per minute and after exercise it is 160 beats per minute. The increase, in beats per minute, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

32 **Density dependent factors include**

A competition and disease

B seasons only

C floods only

D temperature only

Understand It with Pulse | Flag a mistake

33 **A sample of 4 grams of tissue uses 60 units of oxygen per gram. The total, in units, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

34 **A transect counts 180 organisms across 9 equal sections. The average per section is**

ANSWER _____

Understand It with Pulse | Flag a mistake

35 **Pulmonary arteries carry blood that is mainly**

A oxygenated

B deoxygenated

C filtered

D clotted

Understand It with Pulse | Flag a mistake

36 **Exponential growth occurs when the growth rate is**

A zero

B falling to zero

C constant per individual

D limited by food at once

Understand It with Pulse | Flag a mistake

37 **An advanced investigation measures 25 grams of leaf tissue producing 12 units of oxygen per gram. The total oxygen, in units, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

38 **Convergent evolution produces analogous structures in species that are**

A identical

B same genus always

C not closely related

D same species

Understand It with Pulse | Flag a mistake

39 **The epiglottis prevents food from entering the**

A oesophagus

B stomach

C trachea

D mouth

Understand It with Pulse | Flag a mistake

40 **Interspecific competition is competition between**

- A different species
- B cells
- C organs
- D kingdoms only

Understand It with Pulse | Flag a mistake

41 **Keeping substrate concentration constant while testing pH controls a**

- A result
- B product
- C confounding variable
- D hypothesis

Understand It with Pulse | Flag a mistake

42 **Ferns reproduce using**

A spores

B seeds

C flowers

D cones only

Understand It with Pulse | Flag a mistake

43 **The pancreas releases insulin after a meal when blood glucose**

A rises

B falls to zero

C stays constant

D is absent

Understand It with Pulse | Flag a mistake

44 **Random sampling avoids bias by giving every area an**

A equal species count

B equal chance of selection

C equal size

D equal temperature

Understand It with Pulse | Flag a mistake

45 **Surface area to volume ratio falls as a cell**

A gets smaller

B gets larger

C divides

D loses water

Understand It with Pulse | Flag a mistake

46 **Mosses lack true**

A chlorophyll

B vascular tissue

C cells

D spores

Understand It with Pulse | Flag a mistake

47 **Villi increase absorption in the small intestine by increasing**

A surface area

B blood volume

C enzyme amount

D muscle thickness

Understand It with Pulse | Flag a mistake

48 **Sustainable use of a resource means using it at a rate that allows**

- A depletion
- B extinction
- C export only
- D renewal

Understand It with Pulse | Flag a mistake

49 **The dependent variable in a rate experiment is the**

- A temperature set
- B rate measured
- C enzyme amount set
- D time of day

Understand It with Pulse | Flag a mistake

50 **Sexual reproduction increases diversity through**

A cloning only

B genetic recombination

C cell division only

D mutation alone

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	270	**18.**	36	**35.**	B
2.	12	**19.**	B	**36.**	C
3.	60	**20.**	A	**37.**	300
4.	1000	**21.**	B	**38.**	C
5.	A	**22.**	C	**39.**	C
6.	15	**23.**	3600	**40.**	A
7.	5250	**24.**	D	**41.**	C
8.	D	**25.**	360	**42.**	A
9.	D	**26.**	30	**43.**	A
10.	D	**27.**	3600	**44.**	B
11.	A	**28.**	270	**45.**	B
12.	300	**29.**	280	**46.**	B
13.	C	**30.**	50	**47.**	A
14.	C	**31.**	84	**48.**	D
15.	D	**32.**	A	**49.**	B
16.	B	**33.**	240	**50.**	B
17.	D	**34.**	20		

© 2026 Brett Robbins. All Rights Reserved.