

18.3 Selection

01. 0610_s21_qp_21 Q: 36

New strains of the crop plant wheat can be produced by cross-breeding disease resistant plants with those that give high yields of grain.

What is this an example of?

- A natural selection
 - B artificial selection
 - C genetic engineering
 - D asexual reproduction
-

02. 0610_s21_qp_22 Q: 36

What occurs as a result of artificial selection?

- A antibiotic resistance in bacteria
 - B disease resistant crops
 - C presence of roots in cactus plants
 - D sickle cell anaemia
-

03. 0610_w21_qp_21 Q: 35

A species of insect usually has pale-coloured wings. This helps to camouflage them on pale-coloured tree trunks. A few of the insects in this species have darker coloured wings.

After a number of years the tree trunks become darker in colour due to environmental changes. The insects with dark-coloured wings become more common than insects with pale-coloured wings in this species.

Which process causes this change in the proportion of insects with dark-coloured wings?

- A biotechnology
 - B conservation
 - C natural selection
 - D selective breeding
-

18.3. SELECTION

04. 0610_m20_qp_22 Q: 36

The events listed may happen in a population.

- 1 Better adapted organisms survive.
- 2 Mutation results in variation.
- 3 Survivors pass on their alleles to the next generation.
- 4 There is a struggle for survival.

Which sequence may lead to evolution in the population?

- A** 1 → 2 → 3 → 4
B 2 → 4 → 1 → 3
C 3 → 2 → 4 → 1
D 4 → 1 → 2 → 3
-

05. 0610_p20_qp_20 Q: 33

Antibiotics often do not work as effectively against bacterial infections as they used to.

What change has taken place in the bacteria, and what type of selection has brought this about?

	change in the bacteria	type of selection
A	have become immune to the antibiotic	artificial
B	have become immune to the antibiotic	natural
C	have become resistant to the antibiotic	artificial
D	have become resistant to the antibiotic	natural

06. 0610_s20_qp_23 Q: 39

Chickens are birds that are farmed to produce eggs for human consumption.

A type of chicken has been bred to lay **more** eggs.

Which method would be used to produce this type of chicken?

- A** asexual reproduction
B biotechnology
C natural selection
D selective breeding
-

07. 0610_w20_qp_21 Q: 33

Which statement explains why the allele for sickle-cell anaemia is commonly found in human populations in certain parts of the world?

- A** It is transmitted by mosquitoes.
B It protects people against malaria.
C It prevents people being bitten by mosquitoes.
D It increases oxygen transport.
-

08. 0610_w20_qp_21 Q: 34

The development of antibiotic resistance in bacteria is an example of which process?

- A** evolution by artificial selection
- B** evolution by natural selection
- C** variation due to genetic engineering
- D** variation due to asexual reproduction

09. 0610_w20_qp_23 Q: 34

How does artificial selection differ from natural selection?

- A** Artificial selection changes the characteristics of living things.
- B** Artificial selection is based on genetic variation.
- C** Artificial selection does not involve competition for resources.
- D** Artificial selection occurs over many generations.

10. 0610_m19_qp_22 Q: 33

The development of antibiotic resistant bacteria is an example of

- A** artificial selection.
- B** genetic engineering.
- C** humans developing immunity to antibiotics.
- D** natural selection.

11. 0610_s19_qp_22 Q: 35

When antibiotics are overused they become less effective.

Which statement is correct?

- A** Artificial selection results in resistant strains of bacteria.
- B** Patients become resistant to the antibiotic.
- C** The antibiotic causes the bacteria to mutate.
- D** The antibiotic does not kill resistant bacteria.

12. 0610_w19_qp_21 Q: 34

Some disease-causing bacteria survive treatment with an antibiotic.

Which statement about the surviving bacteria is correct?

- A** The antibiotic will work better on the next generation of bacteria.
- B** The bacteria have undergone a process of natural selection.
- C** The bacteria will now be resistant to all antibiotics.
- D** The resistance of the bacteria is a result of selective breeding.

13. 0610_m18_qp_22 Q: 31

What is a feature of natural selection?

- A It does not require a struggle for survival.
 - B It does not require variation in a population.
 - C It involves the selection of advantageous phenotypes.
 - D It involves the selection of disadvantageous genotypes.
-

14. 0610_s18_qp_21 Q: 34

Which statement describes the relationship between evolution and natural selection?

- A A change in the adaptive features of a population over time causes evolution, resulting in natural selection.
 - B Evolution causes a change in the adaptive features of a population over time, resulting in natural selection.
 - C Evolution causes natural selection, resulting in a change in the adaptive features of a population over time.
 - D Evolution is the change in the adaptive features of a population over time as a result of natural selection.
-

15. 0610_w18_qp_21 Q: 34

Over the last 30 years some antibiotics have become less effective in treating bacterial infection.

What is the reason for this?

- A artificial selection
 - B asexual reproduction
 - C more effective new antibiotics
 - D natural selection
-

16. 0610_w18_qp_22 Q: 34

Farmers have bred Holstein-Friesian cattle to produce more milk than older breeds of cattle.

Which process was used to produce these cattle?

- A adaptation
 - B genetic engineering
 - C natural selection
 - D selective breeding
-

18.3. SELECTION

17. 0610_w18_qp_23 Q: 34

What results from the process of natural selection and adaptation?

- A** artificial selection
 - B** evolution
 - C** reproduction
 - D** selective breeding
-

18. 0610_m17_qp_22 Q: 34

How does artificial selection differ from natural selection?

- A** Selection changes the characteristics of living things.
 - B** Selection is based on genetic variation.
 - C** Selection is not based on adaptation to their environment.
 - D** Selection occurs over many generations.
-

19. 0610_w17_qp_22 Q: 33

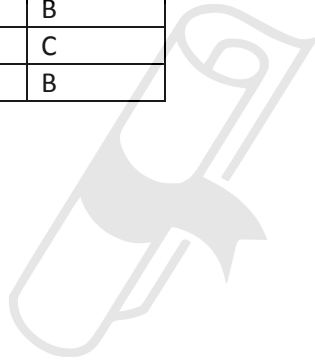
When growing millet, farmers choose seeds from high-yielding plants.

Which biological practice is this an example of?

- A** adaptation
 - B** artificial selection
 - C** evolution
 - D** natural selection
-

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SN	Paper	Q. No.	Answer
01	0610_s21_qp_21	36	B
02	0610_s21_qp_22	36	B
03	0610_w21_qp_21	35	C
04	0610_m20_qp_22	36	B
05	0610_p20_qp_20	33	D
06	0610_s20_qp_23	39	D
07	0610_w20_qp_21	33	B
08	0610_w20_qp_21	34	B
09	0610_w20_qp_23	34	C
10	0610_m19_qp_22	33	D
11	0610_s19_qp_22	35	D
12	0610_w19_qp_21	34	B
13	0610_m18_qp_22	31	C
14	0610_s18_qp_21	34	D
15	0610_w18_qp_21	34	D
16	0610_w18_qp_22	34	D
17	0610_w18_qp_23	34	B
18	0610_m17_qp_22	34	C
19	0610_w17_qp_22	33	B



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