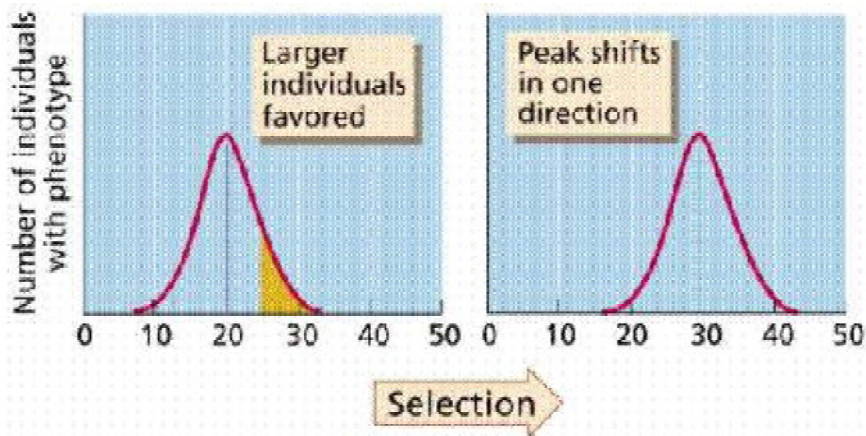


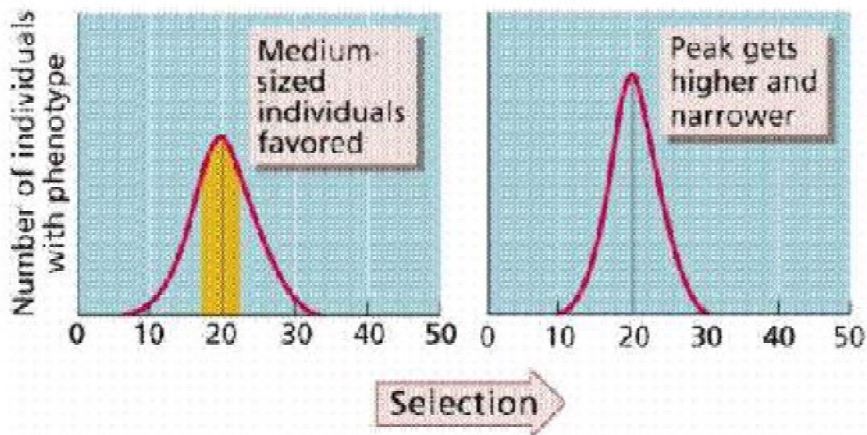
**DO NOT WRITE ON EXAM****L2 Biology - Evolution Exam****Multiple Choice**

Identify the letter of the choice that best completes the statement or answers the question.

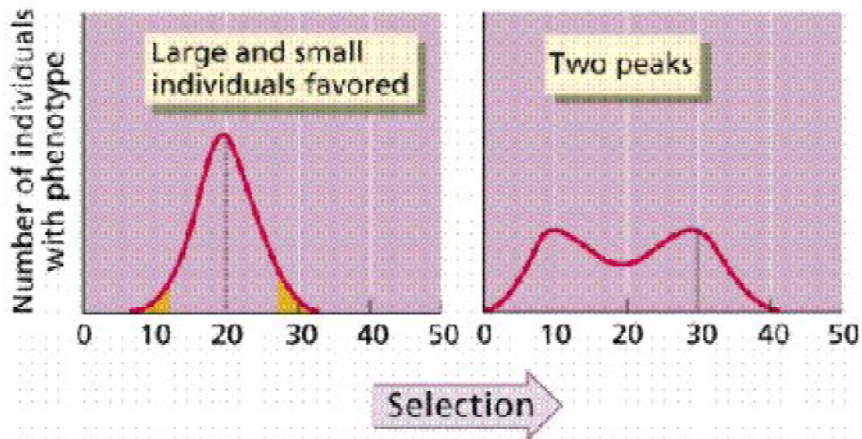
- \_\_\_\_\_ 1. According to evolutionary theory, life began on Earth approximately.  
a. 12 Billion years ago b. 4.5 Billion years ago c. 3.5 billion years ago d. 2 billion years ago
- \_\_\_\_\_ 2. According to evolutionary theory, the Earth formed.  
a. 12 Billion years ago b. 4.5 Billion years ago c. 3.5 Billion years ago. d. 2 Billion years ago.
- \_\_\_\_\_ 3. According to evolutionary theory, the universe was formed...  
a. 12 billion years ago b. 4.5 billion years ago c. 3.5 billion years ago d. 12 thousand years ago
- \_\_\_\_\_ 4. Which of the following is the probable immediate ancestor to *H. sapiens* (modern man)  
a. *Homo habilis* b. *Australopithecus afarensis* c. *Homo erectus* d. *Homo neanderthalis*



Graph A

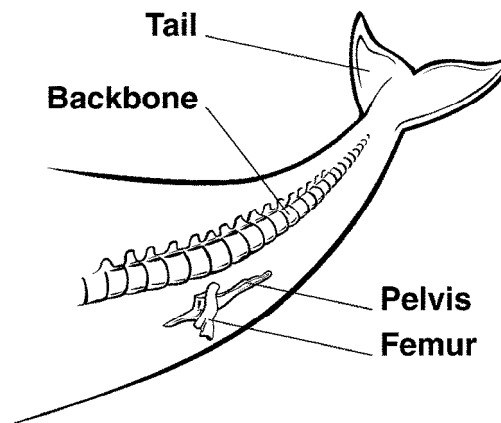


Graph B



Graph C

- \_\_\_ 5. The process of stabilizing selection is represented by which graph? \_\_\_  
 a. Graph A b. Graph B c. Graph C d. None of the above
- \_\_\_ 6. The Process of Disruptive selection is represented by which graph  
 a. A b. B c. C d. None of the above
- \_\_\_ 7. The process of directional selection is represented by wglich graph?  
 a. A b. B c. C d. None of the above
- \_\_\_ 8. Lamarck proposed that organisms  
 a. have an innate tendency toward complexity and perfection. b. have an innate tendency toward simplicity and perfection. c. inherit all of the adaptations they display. d. are not affected by use and disuse of organs.
- \_\_\_ 9. Which is a major concept included in Lamarck's theory of evolution?  
 a. Change is the result of mutations. b. Body structure can change according to the needs of the organism. c. Selection pressures decrease the rate of evolution. d. Sexual reproduction is the genetic basis for variations.
- \_\_\_ 10. The wings of experimental fruit flies were clipped short each generation for fifty generations. The fifty-first generation emerged with normal-length wings. This observation would tend to disprove the theory of evolution based on  
 a. inheritance of mutations. b. inheritance of acquired characteristics. c. natural selection. d. survival of the fittest.
- \_\_\_ 11. According to Darwin's theory of natural selection, individuals who survive are most likely the ones best adapted to exist in their environment. Their survival is due to the  
 a. possession of structures developed through use. b. possession of adaptations that maximize fitness. c. lack of competition within the species. d. ability to change their genotype.
- \_\_\_ 12. When lions prey on a herd of antelope, some antelope are eliminated. Which part of Darwin's theory of evolution may be used to describe this situation?  
 a. acquired characteristics b. reproductive isolation c. survival of the fittest d. speciation due to mutations
- \_\_\_ 13. Darwin called the ability of an organism to survive and reproduce in its environment  
 a. diversity. b. fitness. c. adaptation. d. evolution.



**Figure 15-2**

- \_\_\_ 14. The pelvis and femur of the whale shown in Figure 15-2  
 a. allow the whale to walk. b. are vestigial structures. c. are acquired traits. d. are not inherited.

## Matching

Match the species name to the appropriate "claim to fame" for that species.

- |                                     |                              |
|-------------------------------------|------------------------------|
| a. <i>Astralopithecus afarensis</i> | d. <i>Homo neanderthalis</i> |
| b. <i>Homo habilis</i>              | e. <i>Homo sapiens</i>       |
| c. <i>Homo erectus</i>              |                              |

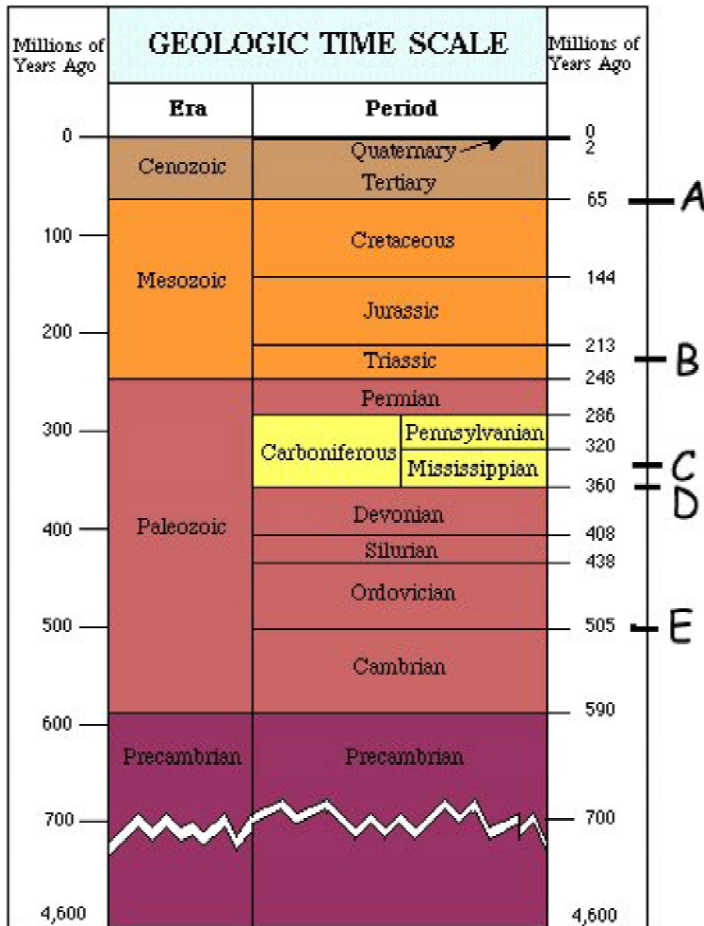
- \_\_\_ 15. First to make stone tools
- \_\_\_ 16. First to harness fire
- \_\_\_ 17. First to walk upright
- \_\_\_ 18. Eventually out competed other hominid species.
- \_\_\_ 19. First known to bury their dead
- \_\_\_ 20. Species adapted for ice-age conditions

Match the species name with the most probable time of it's evolution (NOTE: if using a scantron, enter item f as "AB")

- |                  |                  |
|------------------|------------------|
| a. 12-14 Million | d. 1.5 million   |
| b. 3.5 million   | e. 130,000 years |
| c. 2 million     | f. 100,000 years |

- \_\_\_ 21. *Ramapithecus/Proconsul*
- \_\_\_ 22. *Homo habilis*
- \_\_\_ 23. *Australopithecus afarensis*
- \_\_\_ 24. *Homo erectus*
- \_\_\_ 25. *Homo neanderthalis*
- \_\_\_ 26. *Homo sapiens*

For the following questions, match the appropriate letter from the following graphs with the listed event..



- \_\_\_ 27. K-T Asteroid impact
- \_\_\_ 28. First mammals
- \_\_\_ 29. First Fish
- \_\_\_ 30. End of the dinosaurs
- \_\_\_ 31. First Dinosaurs
- \_\_\_ 32. First amphibians
- \_\_\_ 33. First reptiles

Match the correct definition with the word or phrase below.

- a. Convergence
- b. Divergence
- c. Ontogeny Recapitulates Phylogeny
- d. Vestigial Structure
- e. Homologous Structure

- \_\_\_ 34. When 2 organisms evolve into similar forms through a common need \_\_\_
- \_\_\_ 35. An unused structure which was once useful to an organism \_\_\_
- \_\_\_ 36. When animal evolve from a common form into many ecological niches \_\_\_
- \_\_\_ 37. When an organism relived its evolutionary history through its embryological development \_\_\_
- \_\_\_ 38. Structures of animals which have a common form but different function \_\_\_

**L2 Biology - Evolution Exam  
Answer Section**

**MULTIPLE CHOICE**

1. C
2. B
3. A
4. C
5. B
6. C
7. A
8. B
9. B
10. B
11. B
12. C
13. B
14. B

**MATCHING**

15. B
16. C
17. A
18. E
19. D
20. D
  
21. A
22. C
23. B
24. D
25. E
26. F
  
27. A
28. B
29. E
30. A
31. B
32. D
33. C
  
34. A
35. D

- 36. B
- 37. C
- 38. E

B   5.

  C   6.

  A   7.

  C   1.

  B   8.

  B   2.

  B   15.

  C   16.

  A   3.

  B   9.

  A   17.

  E   18.

  C   4.

  D   19.

  D   20.

  B   10.

  B   11.

  A   21.

  C   22.

  C   12.

  B   23.

  D   24.

  E   25.

  F   26.

  B   13.

  A   27.

  B   28.

  E   29.

  A   30.

  B   31.

  D   32.

  C   33.

  B   14.

  A   34.

  D   35.

  B   36.

  C   37.

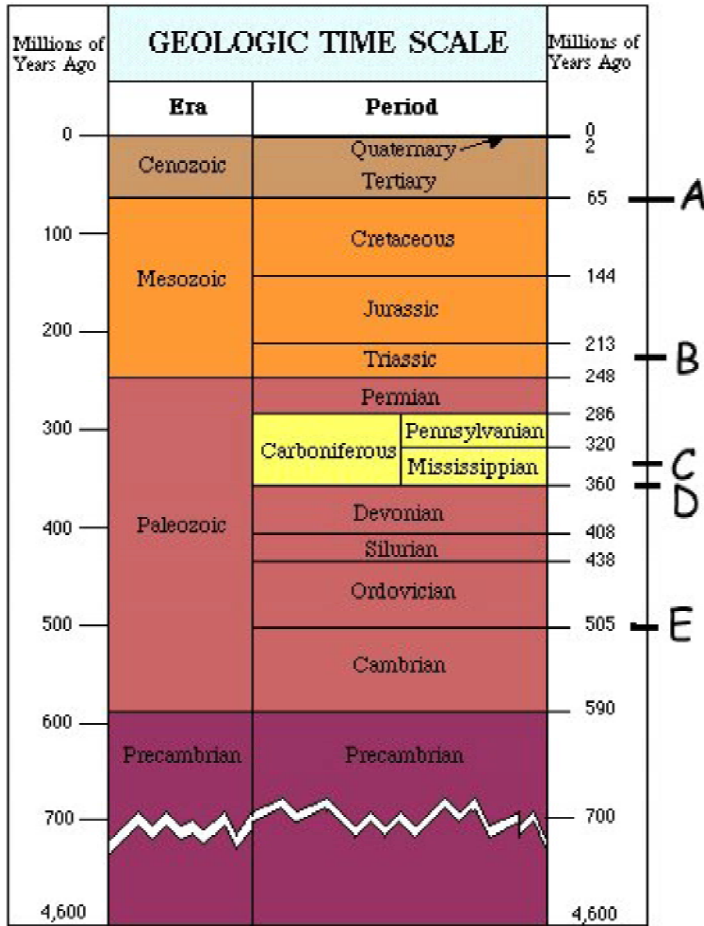
  E   38.

**DO NOT WRITE ON EXAM**

**L2 Biology - Evolution Exam**

**Matching**

For the following questions, match the appropriate letter from the following graphs with the listed event..



- \_\_\_\_\_ 1. End of the dinosaurs
- \_\_\_\_\_ 2. First amphibians
- \_\_\_\_\_ 3. First mammals
- \_\_\_\_\_ 4. First reptiles
- \_\_\_\_\_ 5. First Dinosaurs
- \_\_\_\_\_ 6. First Fish
- \_\_\_\_\_ 7. K-T Asteroid impact

Match the species name to the appropriate "claim to fame" for that species.

- a. *Astralopithecus afarensis*
- b. *Homo habilis*
- c. *Homo erectus*
- d. *Homo neanderthalis*
- e. *Homo sapiens*

- \_\_\_\_\_ 8. Species adapted for ice-age conditions

- \_\_\_ 9. Eventually out competed other hominid species.
- \_\_\_ 10. First to harness fire
- \_\_\_ 11. First known to bury their dead
- \_\_\_ 12. First to make stone tools
- \_\_\_ 13. First to walk upright

Match the species name with the most probable time of it's evolution (NOTE: if using a scantron, enter item f as "AB")

- |                  |                  |
|------------------|------------------|
| a. 12-14 Million | d. 1.5 million   |
| b. 3.5 million   | e. 130,000 years |
| c. 2 million     | f. 100,000 years |

- \_\_\_ 14. *Homo habilis*
- \_\_\_ 15. *Homo sapiens*
- \_\_\_ 16. *Australopithecus afarensis*
- \_\_\_ 17. *Ramapithecus/Proconsul*
- \_\_\_ 18. *Homo neanderthalis*
- \_\_\_ 19. *Homo erectus*

Match the correct definition with the word or phrase below.

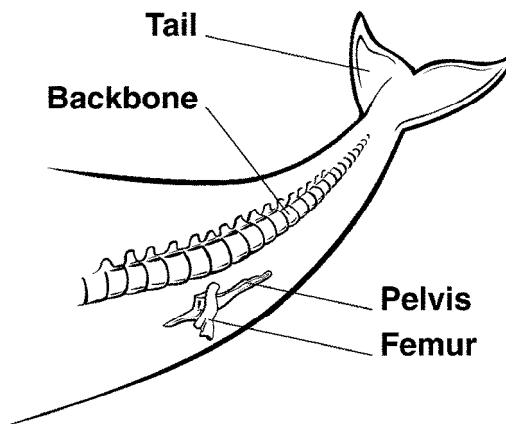
- |                                     |                         |
|-------------------------------------|-------------------------|
| a. Convergence                      | d. Vestigial Structure  |
| b. Divergence                       | e. Homologous Structure |
| c. Ontogeny Recapitulates Phylogeny |                         |

- \_\_\_ 20. When 2 organisms evolve into similar forms through a common need \_\_\_\_\_
- \_\_\_ 21. An unused structure which was once useful to an organism \_\_\_\_\_
- \_\_\_ 22. When animal evolve from a common form into many ecological niches \_\_\_\_\_
- \_\_\_ 23. When an organism relived its evolutionary history through its embryological development \_\_\_\_\_
- \_\_\_ 24. Structures of animals which have a common form but different function \_\_\_\_\_

**Multiple Choice**

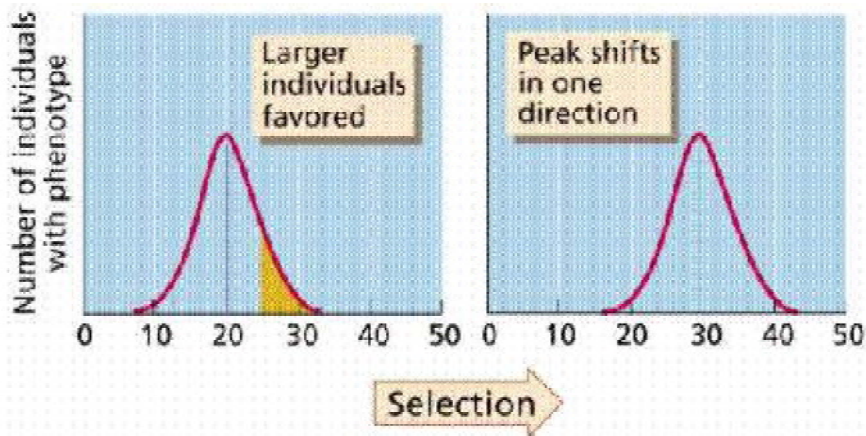
*Identify the letter of the choice that best completes the statement or answers the question.*

- \_\_\_ 25. According to evolutionary theory, the Earth formed.
  - a. 2 Billion years ago. b. 12 Billion years ago c. 3.5 Billion years ago. d. 4.5 Billion years ago
- \_\_\_ 26. According to evolutionary theory, the universe was formed...
  - a. 12 thousand years ago b. 3.5 billion years ago c. 12 billion years ago d. 4.5 billion years ago

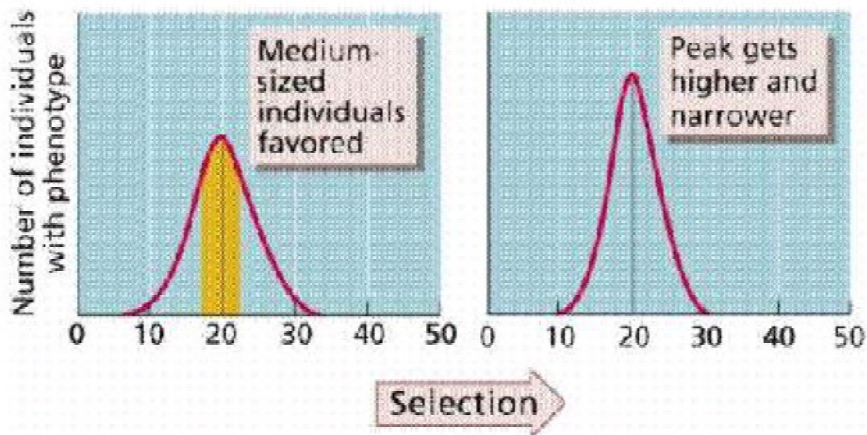


**Figure 15-2**

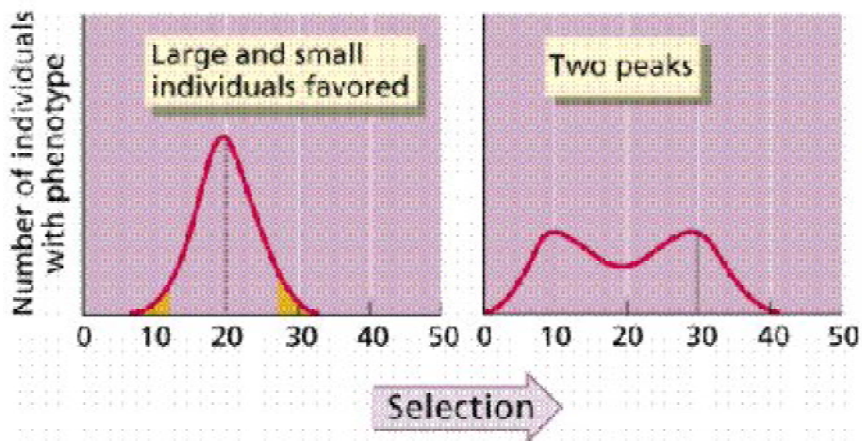
- \_\_\_\_\_ 27. The pelvis and femur of the whale shown in Figure 15-2  
a. are not inherited. b. are vestigial structures. c. are acquired traits. d. allow the whale to walk.



Graph A



Graph B



Graph C

- \_\_\_ 28. The Process of Disruptive selection is represented by which graph  
a. B b. C c. A d. None of the above
- \_\_\_ 29. The process of directional selection is represented by which graph?  
a. A b. B c. C d. None of the above
- \_\_\_ 30. The process of stabilizing selection is represented by which graph? \_\_\_  
a. Graph B b. Graph C c. None of the above d. Graph A
- \_\_\_ 31. Which is a major concept included in Lamarck's theory of evolution?  
a. Change is the result of mutations. b. Selection pressures decrease the rate of evolution. c. Body structure can change according to the needs of the organism. d. Sexual reproduction is the genetic basis for variations.
- \_\_\_ 32. Which of the following is the probable immediate ancestor to *H. sapiens* (modern man)  
a. *Homo erectus* b. *Homo habilis* c. *Homo neanderthalis* d. *Australopithecus afarensis*
- \_\_\_ 33. According to Darwin's theory of natural selection, individuals who survive are most likely the ones best adapted to exist in their environment. Their survival is due to the  
a. possession of adaptations that maximize fitness. b. ability to change their genotype. c. lack of competition within the species. d. possession of structures developed through use.
- \_\_\_ 34. The wings of experimental fruit flies were clipped short each generation for fifty generations. The fifty-first generation emerged with normal-length wings. This observation would tend to disprove the theory of evolution based on  
a. inheritance of acquired characteristics. b. inheritance of mutations. c. natural selection. d. survival of the fittest.
- \_\_\_ 35. Darwin called the ability of an organism to survive and reproduce in its environment  
a. evolution. b. diversity. c. adaptation. d. fitness.
- \_\_\_ 36. According to evolutionary theory, life began on Earth approximately.  
a. 4.5 Billion years ago b. 3.5 billion years ago c. 2 billion years ago d. 12 Billion years ago
- \_\_\_ 37. When lions prey on a herd of antelope, some antelope are eliminated. Which part of Darwin's theory of evolution may be used to describe this situation?  
a. survival of the fittest b. reproductive isolation c. speciation due to mutations d. acquired characteristics
- \_\_\_ 38. Lamarck proposed that organisms  
a. have an innate tendency toward simplicity and perfection. b. are not affected by use and disuse of organs. c. have an innate tendency toward complexity and perfection. d. inherit all of the adaptations they display.

**L2 Biology - Evolution Exam  
Answer Section**

**MATCHING**

1. A
2. D
3. B
4. C
5. B
6. E
7. A
  
8. D
9. E
10. C
11. D
12. B
13. A
  
14. C
15. F
16. B
17. A
18. E
19. D
  
20. A
21. D
22. B
23. C
24. E

**MULTIPLE CHOICE**

25. D
26. C
27. B
28. B
29. A
30. A
31. C
32. A
33. A
34. A
35. D

- 36. B
- 37. A
- 38. A

E 9.  
C 10.  
D 11.  
B 12.  
A 13.

B 28.

A 29.

A 30.

C 31.

A 32.

A 33.

C 14.  
F 15.  
B 16.  
A 17.  
E 18.  
D 19.

B 27.

A 34.

A 20.  
D 21.  
B 22.  
C 23.  
E 24.

D 35.

B 36.

A 37.

A 38.

D 25.

C 26.

A 1.  
D 2.  
B 3.  
C 4.  
B 5.  
E 6.  
A 7.

D 8.