The University of Toronto
National Biology Competition

1998 Examination
Answer Key

1. b	2. a	3. c	4. c	5. e
6. a	7. d	8. b	9. c	10. e
11. c	12. d	13. e	14. e	15. c
16. d	17. a	18. e	19. a	20. b
21. a	22. d	23. b	24. b	25. e
26. a	27. a	28. c	29. e	30. c
31. b	32. d	33. a	34. b	35. e
36. a	37. d	38. e	39. c	40. b
41. a	42. e	43. b	44. d	45. b
46. b	47. a	48. d	49. d	50. c
51. a	52. d	53. b	54. e	55. c
56. c	57. c	58. d	59. b	60. e

Note:
On the original (May 1998) exam paper, for both questions 33 and 36, two responses were given as being correct answers (i.e., if a student answered either of these responses it was recorded as a correct response). In both questions there were two false statements, when there should only have been one. This was unintentional. These have been corrected on this (Jan. 1999) version of the exam, as well as the copy of the exam posted on the Web <http://www.zoo.utoronto.ca/~biocomp/exam98/exam98.htm>.

In question 33, response (e) said "The oxidation of two pyruvate molecules from glycolysis yields two ATP molecules."To be a correct statement it should have been written as "The oxidation of glucose to two pyruvate molecules from glycolysis yields two ATP molecules." This has been corrected on the this version of the exam.

In question 36, response (c) said "During photophosphorylation, water ionizes to form H^+ and OH^- ions, yielding an electron to Photosystem II." To be a correct statement it should have been written as "During photophosphorylation, water is oxidized to form H^+ and O_2, yielding electrons to Photosystem II." This has been corrected on the this version of the exam.