

**University of Toronto
National Biology Competition**

**2010 Examination
April 29, 2010**

Answer Key

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

* Notes:

Q21: Both C and E are correct; as urea (ii), ammonium salts (iii), and ammonia (iv) are suitable for metabolic use by plants and do not need to undergo nitrogen fixation. If the question had stated “directly used by plants” then “urea” would not be correct as urea must first be broken down by microbes.

Q34: C is the best response, however credit is also given to students who answered E; although T-cell activation is antigen specific, the response of the T-cell by secreting cytokines stimulates a nonspecific inflammatory response.

Q37 was removed from the exam as there was no single best response.

Q38 was removed from the exam as the wording of the question was confusing and thus there was no clear correct response.