

## ECE 30862 Fall 2015 Second Exam Key

- |               |                   |
|---------------|-------------------|
| 1. OK         | 26. 4             |
| 2. OK or ERR  | 27. 0             |
| 3. OK or ERR  | 28. 0             |
| 4. OK or ERR  | 29. 5             |
| 5. OK or ERR  | 30. B(&B b)       |
| 6. OK or ERR  | 31. B(int)        |
| 7. OK or Err  | 32. B(int) C(int) |
| 8. OK         | 33. -1 ~B         |
| 9. OK         | 34. ~C ~B ~B      |
| 10. OK        | 35. 1             |
| 11. C::f2     | 36. w1 is this    |
| 12. C::f3     | 37. 15            |
| 13. C::f1     | 38. 36            |
| 14. B::f3     | 39. NO            |
| 15. D::f1     | 40. E1            |
| 16. D::f2     | 41. caught it 2   |
| 17. B::f2     | 42. NO            |
| 18. B::f3     | 43. NO            |
| 19. D::f1     | 44. int           |
| 20. C::f3     | 45. String        |
| 21. B::int    | 46. NO            |
| 22. B::double | 47. B             |
| 23. C::int    | 48. A             |
| 24. B::double | 49. B             |
| 25. 4         | 50. A             |

**Notes:**

**Questions 2 - 7** When D2 inherits privately from D1, this also hides the inheritance chain, i.e., that D2 inherits from D1 and Base is private information. When D1 inherits protected from Base, it makes it protected information that D1 extends Base. The good thing about this is that it makes D1 and D2 appear to be a monolithic, stand-alone class outside of these classes. The bad thing is that it makes these test questions poorly formed because it is illegal to say *Base\* d1 = new D1( );* and *Base\* d2 = new D2( );* because it is private that D2 is a Base and protected information that D1 is a base. Thus the declarations are illegal, and therefore questions 2 through 7 don't make sense.

**Question 32** Give 1 point if they answer either C(int) or B(int)

**Question 33** Give 1 point if they answer either -1 or ~B

**Question 34** Take away 1 point if the order is wrong

**Question 36** The working does not have to be the same as mine, just the idea