Topic list for final:

1. antiderivatives and rules of integration
2. relationship between position/velocity/acceleration
3. business terms from 3.4 and relationships between them (for example, what is the relationship between profit and marginal profit? How could you compute one given the other?
4. integration by substitution
5. area and the definite integral: difference between integral and area, when is an integral an area?
6. fundamental theorem of calculus: what is it and when do we apply it?
7. Evaluation of definite integrals
8. average function value
9. finding the area between two curves
10. consumers/producers surplus
11. integration by parts
12. numerical integration: Simpson's Rule, Trapezoidal Rule, Midpoint Rule
13. improper integrals
14. functions of several variables
15. partial deriviatives
16. maxima and minima of multivariable functions/method of Lagrange multipliers
17. method of least squares
18. total differentials
19. double integrals
20. average value of a 2 variable function
21. Taylor polynomials
22. limits of sequences
23.geometric series
24. trig functions, relationships between trig functions, common identities
25. rules of integration and differentiation of trigonometric functions

Note: The final is completely comprehensive. Some problems may (and probably will) require skills from more than one section. Problems will range from easy to moderately difficult. There will be no notes or books allowed on the exam. Use of an approved calculator is encouraged.