**ZCA 110 Calculus and Linear Algebra TEST II**

**11 Nov 2015, Venue: E41**

**Q1**.

1. Sketch the graph of *y* = arctan *x*. State *R* and *D*, the range and domain of arctan *x*. Label your graph clearly.
2. Derive the derivative of arctan *x* with respect to *x*. Show your steps clearly.

**Q2**.

1. Find the indefinite integration
2. .

**Q3**. Integrate the following:

a) 

b) 

**Q4**. By using L’ Hopital Rule, find:

