**** Name: …………..……….......……

|  |  |  |
| --- | --- | --- |
| **Resource Free** | **/25** | **%** |
| **Resource Rich** | **/25** | **%** |
| **Total** | **/50** | **%** |

Mathematics Methods, Year 12, 2016

Test 2 – Further differentiation and applications, Integrals

25 minutes working time.

Calculator Free Section (no notes, no calculators)

SCSA Formula sheet allowed

1. (3 marks)

Given  and 

(a) find  (1)

(b) hence find the expression for  (2)

2. (7 marks)

(a) Find the following. Simplify your answers.

(i)  (2)

(ii)  (3)

(b) Given  find the function  given the point  belongs to the function. (2)

3. (4 marks)

Find  for each of the following

(a)  (2)

(b)  (2)

4. (5 marks)

(a) If 

(i) find  (1)

(ii) hence sImplify  (2)

(b) Given  find an expression for  (2)

5. (6 marks)

Calculate the area bounded by the functions and 

**END OF TEST**