

**Mathematic202**  
**Final Term Paper 2011**  
**By Cute Girl**

Q1: Let  $R \rightarrow R$  be defined by 5marks

$$f(x) = \frac{2x+1}{2x+2}$$

Is  $f$  one-to-one?

Q2: Suppose that 200 faculty members can speak French (F) and 50 speak Russian (R).  
using inclusive- exclusive (incomplete)

Q3: Find the gcd of 1075, 45 using dividing algorithm. 5marks

Q 4. Compute  $\lfloor x \rfloor$  and  $\lceil x \rceil$  for  $x = -2.01$  3 marks

Q 5: Find the greatest common division for the following pair of integer: 30, 105 2marks

Q 6: Find the Spanning tree for the graph  $K_{1,5}$ ? 2marks

Q 7 Determine which  $f$  is a function?

$$f(x) = \frac{1}{x^2 - 4}$$

Q 8. What is the difference between  
 $\{a, b\}$  and  $\{\{a, b\}\}$ ?

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Q 9. How many 3-digits can be formed by using each one of the digits 2, 3, 5, 7, 9 only once?

Q10 What is the smallest integer  $N$  such that  $[N/9] = 6$ ?

Q11. One example is giving in Lec#41 page No.268 topic Transpose  
Mostly objective has been taken from old papers and following topics.

Probability

Tree

Sets

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