

Class Test 01 Set A  
CSE 401 – Mathematics for Computer Science  
Department of Computer Science and Engineering  
University of Asia Pacific  
Total Marks: 20      Time: 30 Minutes

1. Determine the maximum value of the function  $F(x, y, z) = ax + by + cz$  and constraint is defined as  $x^2 + y^2 + z^2 = 6$ . Also determine the value of  $x, y, z$ . [20]

Where,  $a = \text{Your ID mod } 3 + 2$

$b = \text{Your ID mod } 5 + 3$

$c = \text{Your ID mod } 7 + 4$ .