

KFUPM  
Mathematics & Statistics

Term 161  
MATH 101

Date: 25/12/2016  
Duration: 20 minutes

Quiz# 6 A

Name:

ID #:

Section:

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1. Find the absolute maximum and absolute minimum values of the function  $f(x)$  over the given interval?  $f(x) = 3x^2 - 12x + 5$   $[0,3]$

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2. Let  $f(x) = \alpha x^2 + \beta x + \gamma$  where  $\alpha \neq 0$ ,  $\beta$  &  $\gamma$  are constants. The value of  $c$  that satisfies the conclusion of the Mean Value Theorem for  $f$  on the interval  $[3,7]$  is

3. Find the inflection points of the function  $f(x) = x^2 - 18\ln(x)$  (if exist)

4. Find the local Minimum & Local Maximum points of the function  
$$f(x) = x^4 - 4x^3 + 4x^2 + 4$$