Course No: Course Title: Calculus I Date: 16/04/2017 No. of Questions: (4) Time: 1hours Using Calculator (Yes)	University of Palestine 2 nd Midterm Exam 2 nd Semester 2016/2017 Total Grade:	Instructor Name: Dr. Hossam ELAQRA Student No.: Student Name: College Name: Engineering Dep. / Specialist: Using Dictionary (No)
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Question One:

8 marks

1- Find the slope for these functions at the point (2,3):

$A-Y = X^2 - 3$	(2 marks)
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$$B-Y = X^3 - 2X^2 + 3X - 1$$

2- Using the definition of limit find the slope of the function:

 $Y = 4 - X^2$

(4 marks)

(2 marks)

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Question Two:

8 marks

A particle is moving according to the equation:

 $Y = 2t^2 + 5t - 3$ (where t is the time), Find the velocity and the acceleration at t= 0, 1 and 2

Question Three:

Find the limit for:

1-
$$\lim_{X \to \infty} \sqrt{\frac{(8X^2 - 3)}{2X^2 + X}}$$

6 marks

each 2 marks

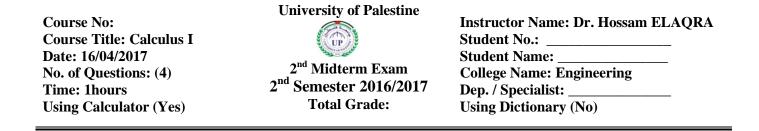
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$$\lim_{X \to \infty} \frac{2\sqrt{X} + X^{-1}}{3X - 7}$$

$$\lim_{X \to \infty} \frac{\sqrt{X^2 + 1}}{X + 1}$$



Question Four:

8 marks

Find the 1st and the 2nd derivatives for the functions:

$$Y = \frac{X - 2}{X + 3}$$
(2 marks)

$$1 - Y = (2t + 3)^3$$
 (2 marks)

D-If
$$y = f(x)$$
 and $X = t^2 + t$, Find dy/dt (4 marks)
2-

End of Questions Good Luck