Theoretical Competition

3 May 2011



Total No.

Ctudent Code	\Box				
Student Code	ıl		Ш		8



Theoretical Question 3: Birthday Balloon

ANSWER FORM

a.	$\sigma_L/\sigma_t =$		
b.	Expression	on for $P(V)$ from Hooke's law:	
	1		
	P(V) =		
	Graph of P	$P - P_0$ as a function of V for Hooke's law:	
	Maximal ii	nflation pressure from Hooke's law:	
	$P_{max} =$		
	1 max —		
•	Cook of D	Dog of function of W for modication which are and variforms in flations.	
С.	Graph of F	$P - P_0$ as a function of V for realistic rubber and uniform inflation:	

Theoretical Competition

3 May 2011

^		Al.	
LILAC	tion	Num	hor 4
Ques	LIVII	ITUIII	DCI 7

Page No.	
	_

Total No.



4	P	12/	
	ael a		
131	del c	2011	

Value of $P - P_0$ at r = 0.5 cm: Value of $P - P_0$ at r = 2.5 cm:

d.	$P_c =$	
	$V_1 =$	
	$V_2 =$	

e. Graph of $P - P_0$ as a function of V taking the split into account:



f. $L_{thin}(V) =$

g. $\Delta W/\Delta L_{thin} =$