EXPERIMENTAL EXAMINATION

ANSWER SHEET

1.	1.	$C_6H_{12}O_6$ -> 2 CO_2+ 2 C_2H_5OH			
2.	2	Molar mass of Glucose = 180 g/mol Molar mass of CO_2 = 44 g/mol 2 CO_2 are produced from 1 glucose mass (glucose) = MW (glucose) x mass (CO_2) / MW (CO_2) / 2 = 180 g/mol x 88 g / 44 g/mol / 2 = **180 g**			
3.	1		**B**		
4.	1		**B**		
5.	1	**A**			
6.	1				**D**
7.	1				**D**
8.	1.5		**B**		
9.	1		**B**		
10.	1.5	**A or B**	**A or B**		
11.	1.5				**D**
12.	1.5			**C**	
13.	1.5	**A**			
14.	2	Please do the calculations yourself.			
15.	2	Please do the calculations yourself.			
16.	2	See below			
17.	2	See below			
18.	10.5				

		Time from beginning	**Bubble release time in seconds**									
			1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
		5 min										
		15 min										
		25 min										
		35 min										
		45 min										
19.	3	See below										
20.	1											
21.	1											

3rd IJSO Experimental Test solutions for the physics part:

16.
Calculating raidus and volume 2 pt

17. Correct = answer 16/ 1 h 2 pt

18.
Filling Correctly the table 3 pt
Graphing the 3 time series with more than 4 points 1.5 pt

Graph x 3
- axes labels 0.25 pt
- good usage of paper 0.25 pt
- clearly marked points 0.75 pt
- line of best fit 0.75 pt

19 x 3

Calculation of slope 0.4 pt
Calculation if the rate = 1/slope 0.3 pt
volume/t =volume of each bubble x rate 0.3 pt

20 A 1 pt

21 B or D are correct 1 pt