Class:			-	^	Student	Name:		
G O	S	F	R	( <b>D</b> )		Alexander (aw		
Part A /16							Λ	
Part B / 27							$\{\}$	جاني جاني
TOTAL		,	/43					
NSWER SHEE	T for	MULTIPLE	CHOICE	-Clearl	y mark 1 a	nswer for eac	h question.	
QUESTION		А		В		С	D	
1						- /		•
2							V	
3				V				
4						•	<b>(4)</b>	W
5			ð	•	/			
6						<b>✓</b>		
7		1						
8				, e			V	
9		<b>√</b>						
10					V			
11		<b>√</b>						
12				V				
13		√						
14								/
15				V			!	
16							V	

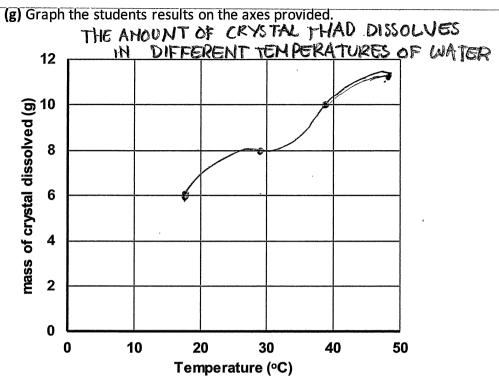
Part II	-
27 marks Attempt Questions 16-19. Allow about 35 minutes for this section	
Question 16 (15 marks)	Marks
The paragraph below is a student's write-up of a	an experiment.
1. I put 100 mL of water in a test tube and meassome of the crystals in it and stirred the mixture some remained on the bottom of the tube no m 2. I filtered the mixture and then evaporated all amount of solid left behind and found that 6.0 g 3. Then I did it again but this time I heated the w tripod while the thermometer was suspended for that 8.0 g dissolved.  4. I repeated it at 40°C and at 47°C and got 10.00	e to dissolve the crystals. I kept stirring until atter how much longer I stirred. I the water from the solution. I weighed the I had been dissolved. Water using a Bunsen burner, gauze mat and form a retort stand using water at 29°C. I found
(a) Write an aim appropriate for the experi	ment.
	uperature of the water affects how much
(b) \ Complete the table for the student's res	ults.  Amount of crystal disolved (9)
18.00	6109
290 C	8,09
4000	10.09
4700	11,29

(c) Identify the independent and dependent variable for this experiment.

Dependant: the temperature of the water

Independant: the crystals in the water

	(e) Draw a labelled scientific diagram showing the equipment set up required to carry out start as described above.	ер <b>3</b>
	Clowb	
	Boss head Thermometer - Goode Goode	max (250m
	Test tobe	V/N 609
		The pripar
,	Canorio Canorio	
ુમ <sup>ું</sup>		rack bur
fort star	nd	YOUR BUT
	crystals liquid	
	(f) Identify two safety issues the student will have to be concerned with through this experiment.	2
	They would have to turn the burner off when the are not using it.	•
	They would have to wear safety glasses when using bursen Burner	



(h)	Write a conclusion	on for the experiment.		1
•••••	the higher the	temperative was, the more	orystal that gets dissolved in	.Hne
	test tube			

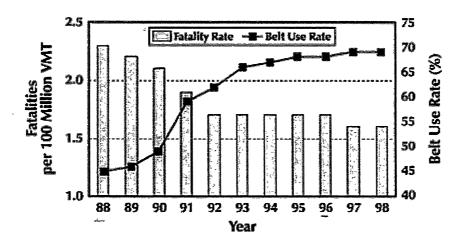
## Question 17 (4 marks)

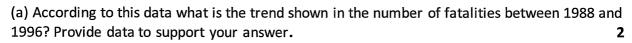
The following scientists are working in different branches or disciplines of science. Identify which branch each is working in:

Activity	Branch of Science
Paris is studying the crystals embedded in a rock.	Geology
Beau is developing a new type of plastic	<del>-cinemat</del> ry Chemistry
Shaun is investigating the eating habits of insects	entendogy Entemology
Angus is monitoring the movement of an asteroid	astronomy.

## Question 18. (4 marks).

The graph shows information about road fatalities and the use of seat belts in cars.





from # 1988-1996 the Galattes have massively reduced as the use of seatbelts go up almost by 500%.

(b) Analyse the data presented and provide reasons for the conclusion you made.

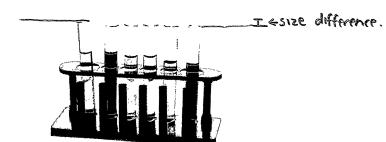
on you made. 2

I gave a conclusion like this because from 1988 to 1996, the crashes veduced by 600,000 (approx) and the use of seatbelts during

the same period of time ovent up by 25%.

## Question 19. (4 marks).

The drawing made by a scientist was twice as big as the real size of the object. Determine the actual length of the whole piece of equipment. *Show your working.* **2** 



total length of rack= 4.3 actual size= 4.3 = 2=2.15cm = rack	
test tube = 0,4 cm. actual size = 0,4x 0,4 = 2 = 0,2 cm = tu	lbe.
b) There are some problems with the equipment diagram above. Identify two things that the scientist needs to change to accurate represent the equipment above.	2
- same size test tubes -20 drawring	
-no colours :	

**END OF EXAM**