

# Chemistry

## Section I (continued)

Part B – 60 marks

Attempt Questions 16–27

Allow about 1 hour and 45 minutes for this part

Answer the questions in the spaces provided.

Show all relevant working in questions involving calculations.

Marks

### Question 16 (6 marks)

You have carried out a first-hand investigation to compare the reactivity of an alkene with its corresponding alkane.

- (a) State the name of the alkene. 1

..... cyclohexene .....

- (b) Outline a procedure to compare the reactivity of this alkene with its corresponding alkane. 2

..... mix bromine solution <sup>is use because of its less dangerous than chloride and can see colour easier.</sup> with this alkene and its corresponding alkane in the presence of uv light and without the uv light, using a test tube.

The result shows that the product decolorised in both condition for the alkene but with alkane the decolorised results is occurs only with presence of uv light.

- (c) Describe the results obtained from this first-hand investigation and include relevant chemical equations. 3

The results obtained:

|                  | cyclohexane | cyclohexene  |
|------------------|-------------|--------------|
| uv light         | decolorised | decolorised  |
| without uv light | no effects  | decolorised. |

The result shows that the product decolorised in both condition for the alkene but there is no effects to the alkane without the presence of uv light. The chemical reaction of cyclohexane with Br<sub>2</sub>

