

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

..... ~~ethane~~ ethene

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

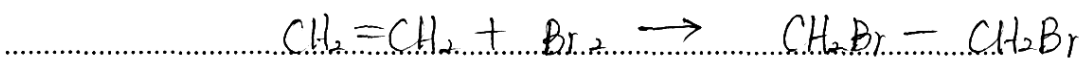
2

..... Prepare two samples ~~of~~, ethane and ethene.....
 In each sample add some droplets of bromine and shake them.
 The result is, ethane does not react with bromine (no colour change)
 Ethene reacts with bromine, ethene change the brown bromine to colourless.

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

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..... Ethane does not react with bromine because ethane
 is formed by single ~~covalent~~ bond.....
 Ethene reacts with bromine, ethene also change the brown
 colour to colourless.....



..... Ethene opens its double bond to combine with bromine
 to change the colour.