

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.

Question 16 (6 marks)

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

..... Ethene

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

~~Ethene~~ Add halogen (such as Br_2) into solution of ethene and do same as to solution of ~~the~~ ethane which is corresponding with ethene.

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

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 The mixed solution of ethene with halogen (Br_2) has a colour change; $C_2H_4(g) + Br_2(l) \rightarrow C_2H_4Br_2$
 The mixed solution of ~~the~~ ethane with halogen (Br_2) has no colour change; $C_2H_6(g) + Br_2(l) \rightarrow C_2H_5Br(l) + HBr(g)$
