

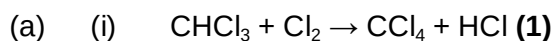
Name of the Student: _____

Max. Marks : 21 Marks

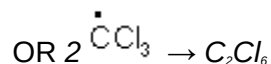
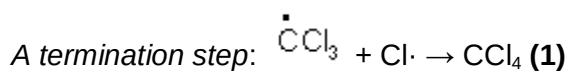
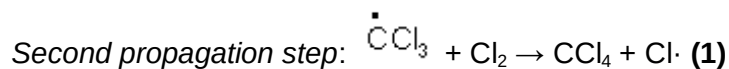
Time : 21 Minutes

Mark Schemes

Q1.

*maxT = 1000°C**NOT heat / light**Ignore pressure*

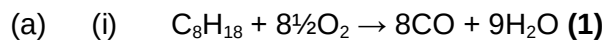
2

*Condition could be on first equation arrow**Not $2\text{Cl}\cdot \rightarrow \text{Cl}_2$* *Ignore additional termination steps*

4

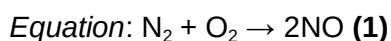
[6]

Q2.



OR double this equation

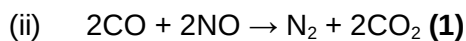
(ii) *Condition:* Spark OR high T OR T = 2500 – 4000 °C **(1)**



OR half this equation

3

(b) (i) platinum OR rhodium OR palladium **(1)**



OR half this equation

2

(c) *Reason for SO₂ in exhaust gases:* fraction / petrol / fuels contain sulphur or sulphur-containing impurities (which burn to give SO₂) **(1)**

Environmental effect SO₂: acid rain OR a specific effect **(1)**

NOT greenhouse effect

NOT damages ozone layer

2

[7]

Q3.

- (a) (i) fractional distillation or fractionation 1
- (ii) C_9H_{20} only 1
- (iii) $C_{11}H_{24} + 17O_2 \rightarrow 11CO_2 + 12H_2O$ 1
- (iv) $C_{11}H_{24} + 6O_2 \rightarrow 11C + 12H_2O$ 1
- (b) (i) $C_{10}H_{22} \rightarrow C_3H_6 + C_7H_{16}$ 1
- (ii) correctly drawn structure of methylpropene
(insist on clearly drawn C-C and C=C bonds) 1
- (c) Any two from
- o chemically similar or chemically the same or react in the same way
 - o same functional group
 - o same general formula
 - o differ by CH_2
(penalise same molecular formula or same empirical formula)
- 2

[8]