Practice Question Set For A-Level
Subject : Chemistry
Paper-2 Topic: Kinetics

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Name of the Student:_____
Max. Marks : 22 Marks **Time : 22 Minutes**

Mark Schemes

Q1.

(a) Graph starts at origin

1

Graph skewed to left and has decreasing gradient to maximum

1

Graph after maximum decreases in steepness, never touches *x* axis, levels out less than 5 mm from *x* axis.

1

(b) Minimum energy

1

To start a reaction (*or for a reaction to occur*)

1

(c) Molecules gain energy (*or always some molecules have* $E > E_a$)

1

Due to collisions

1

(d) Decreases

1

E_a lowered **(1)**
By alternative route **(1)**
So more molecules have energy > E_a **(1)**

max 2

[10]

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Q2.

(a) minimum energy **(1)**
required before a reaction can occur or go or start **(1)**

2

(b) speeds up (changes) reaction rate **(1)**
without being (chemically) changed **(used up) (1)**

2

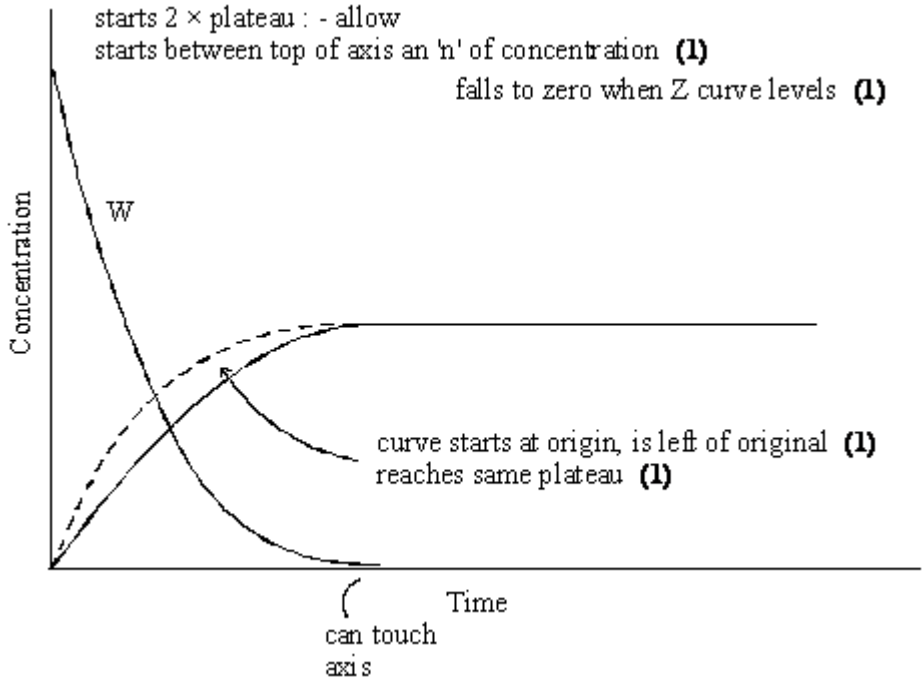
(c) provides alternative reaction route **(1)**
with a lower activation energy **(1)**

in (b) and (c) reward 4 marks for 4 points wherever found

2

(d) (i)

(ii)



(iii) fewer collisions **(1)**
W used up **(1)**

or reactants
or reagents
or fewer particles

6

[12]

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