



Province of the  
**EASTERN CAPE**  
EDUCATION

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**NATIONAL  
SENIOR CERTIFICATE/  
NASIONALE  
SENIOR SERTIFIKAAT**

**GRADE/GRAAD 12**

**JUNE/JUNIE 2026**

**PHYSICAL SCIENCES: CHEMISTRY P2/  
FISIESE WETENSKAPPE: CHEMIE V2  
MARKING GUIDELINE/NASIENRIGLYN**

**MARKS/PUNTE: 150**

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This marking guideline consists of 15 pages./  
*Hierdie nasienriglyn bestaan uit 15 bladsye.*

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**QUESTION/VRAAG 1**

- 1.1 D ✓✓ (2)
- 1.2 B ✓✓ (2)
- 1.3 C ✓✓ (2)
- 1.4 B ✓✓ (2)
- 1.5 D ✓✓ (2)
- 1.6 B ✓✓ (2)
- 1.7 D ✓✓ (2)
- 1.8 B ✓✓ (2)
- 1.9 D ✓✓ (2)
- 1.10 A ✓✓ (2)
- [20]**

## QUESTION/VRAAG 2

2.1.1 Formyl group / *Formielgroep* ✓ (1)

2.1.2  $C_nH_{2n}O_2$  ✓ (1)

2.2 Unsaturated. ✓ Contains a triple carbon-carbon bond. ✓  
*Onversadig. Bevat 'n drievoudige koolstof-koolstofbinding* (2)

2.3.1 3-ethyl-2-methylpentanal ✓✓✓  
*3-etiel-2-metieipentanal*

**Marking criteria/ Nasienkriteria**

- Correct stem – pentanal/  
*Korrekte stam – pentanal*
- Substituents correctly identified (ethyl and methyl)/  
*Substituente korrek geïdentifiseer (etiel en metiel)/*
- Whole name correct  
*Hele naam korrek*

(3)

2.3.2 2,5-dimethylhept-3-yne ✓✓  
2,5-dimethyl-3-heptyne ✓✓

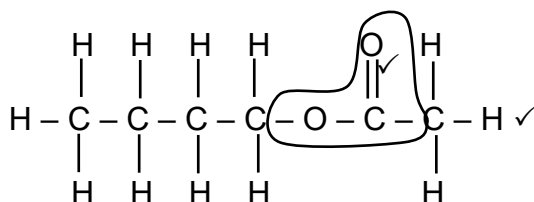
*2,5-dimetielhept-3-yn*  
*2,5-dimetiel-3-heptyn*

**Marking criteria/ Nasienkriteria**

- Correct stem - hept-3-yne/  
*Korrekte stam – hept-3-yn*
- Whole name correct/  
*Hele naam korrek*

(2)

2.4

**Marking criteria/ Nasienkriteria**

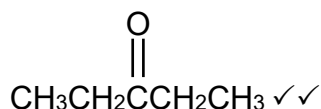
- Correct functional group/  
*Korrekte funksionele groep*
- Whole structure correct/  
*Hele struktuur korrek*

(2)

2.5.1 Pentanal ✓✓ (2)

2.5.2  $CH_3CH_2COCH_2CH_3$  ✓✓

OR

**Marking criteria/ Nasienkriteria**

- Position of functional group on carbon 3/  
*Posisie van die funksionele groep is op koolstof 3*
- Whole structure correct/  
*Hele struktuur korrek*

(2)

**[15]**

## QUESTION/VRAAG 3

- 3.1 The experimental boiling points of the compounds will be compared to the known boiling points of compounds ✓ with the given molecular formula. ✓

*Die eksperimentele kookpunte van die verbindings sal vergelyk word met die bekende kookpunte van verbindings met die gegewe molekulêre formule.* (2)

- 3.2 Esters ✓ and carboxylic acids ✓  
*Esters en karboksielsure* (2)

3.3.1 **Marking criteria/ Nasienriglyne**

If any of the underlined key words/phrases in the **correct context** are omitted:  
- 1 mark per word/phrase.

*Indien enige van die sleutelwoorde/frases in die korrekte konteks weggelaat word:  
- 1 punt per word/frase*

The temperature at which the vapour pressure of a substance equals the atmospheric pressure ✓✓

*Die temperatuur waarby die dampdruk van stof gelyk is aan die atmosferiese druk* (2)

- 3.3.2 **B** ✓ It has the highest boiling point/ *Dit het die hoogste kookpunt* ✓ (2)

- 3.3.3 2-methylpropanoic acid / *2-metielpropanoësuur* ✓✓ (2)

3.3.4 **MARKING CRITERIA /NASIENKRITERIA**

- Identifying compound **C** has the weakest intermolecular forces
- Identifying compound **C** belong to esters.
- Identifying compounds **A** and **B** belong to the same homologous series.
- Identifying compound **A** has a shorter chain length than compound **B**
- *Identifiseer dat verbinding **C** wat die swakste intermolekulêre kragte het*
- *Identifiseer dat verbinding **C** aan die esters behoort.*
- *Identifiseer dat verbindings **A** en **B** aan dieselfde homoloëreeks behoort.*
- *Identifiseer dat verbinding **A** korter kettinglengte het as verbinding **B***
- Compound **C** has the lowest boiling point.
- Compound **C** will have the weakest intermolecular forces. ✓
- Compound **C** belongs to the ester ✓
- Compounds **A** and **B** boiling points are close to each other
- Compounds **A** and **B** belong to carboxylic acids/same homologous series ✓
- Compound **A** has a lower boiling point than compound **B**
- Compound **A** will have a shorter chain length than compound **B** ✓
- *Verbinding **C** het die laagste kookpunt*
- *Verbinding **C** het die swakste intermolekulêre kragte*
- *Verbinding **C** behoort aan die esters*
- *Verbinding **A** en **B** se kookpunte is naby mekaar*
- *Verbinding **A** en **B** behoort aan dieselfde homoloë reeks / karboksielsure*
- *Verbinding **A** het 'n korter kettinglengte as verbinding **B***

(4)  
[14]

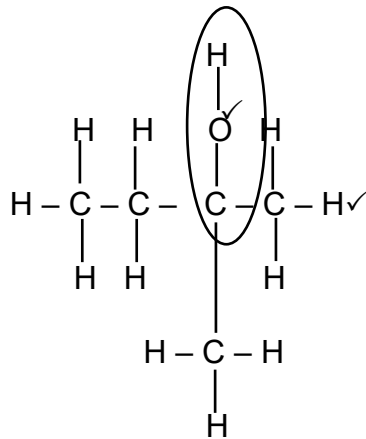
**QUESTION/VRAAG 4**

4.1.1 Addition / Hydration ✓  
Addisie / Hidrasie (1)

4.1.2 Substitution / Hydrohalogenation of alcohols ✓  
Substitusie / Hidrohalogenering van alkohole (1)

4.1.3 Substitution / Hydrolysis of haloalkanes ✓  
Substitusie / Hidratering van haloalkane (1)

4.1.4



**Marking criteria/ Nasienkriteria**

- Correct functional group/  
Korrek funksionele groep
- Whole structure correct/  
Hele struktuur korrek

(2)

4.1.5 2-bromo-2-methylbutane ✓✓✓  
2-bromo-2-metielbutaan

**Marking criteria/ Nasienkriteria**

- Correct stem – butane/  
Korrekte stam - butaan
- Substituents correctly identified (bromo and methyl)  
Substituente korrek geïdentifiseer (bromo en metiel)
- Whole name correct/Hele naam korrek

(3)

4.1.6 Diluted / Verdun ✓ (1)

4.1.7 Conc/ Gekons H<sub>2</sub>SO<sub>4</sub> / H<sub>3</sub>PO<sub>4</sub> ✓ and / en heat / hitte (under reflux) ✓ (2)

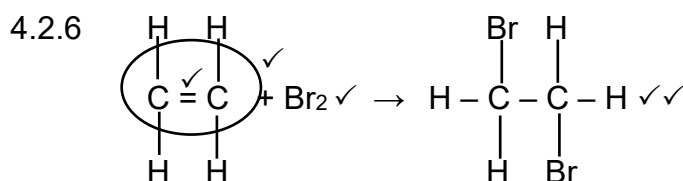
4.2.1 The breaking up of long chain hydrocarbons into smaller more useful molecules ✓✓ (2 or 0)  
Die opbreek van langkettingkoolwaterstowwe in kleiner, meer bruikbare molekules (2 of 0) (2)

4.2.2 Ignition/spark source is needed / Ontstekings-/vonkbron is nodig ✓ (1)

4.2.3  $C = 16 / 2 = 8$   
 $H = 18 \times 2 / 2 = 18$  } ✓  
C<sub>8</sub>H<sub>18</sub>  
Octane / Oktaan ✓✓ (3)

4.2.4 The combustion reaction is highly exothermic. / Die verbrandingsreaksie is hoogs eksotermies. ✓ (1)

4.2.5 Bromine water decolourises / Broomwater ontkleur ✓ (1)



**Marking criteria for organic compounds/ Nasienkriteria vir organiese verbindings**

- Correct functional group/  
Korrek funksionele groep
- Whole structure correct/  
Hele struktuur korrek

(5)  
[24]

### QUESTION/VRAAG 5

5.1 **Marking criteria/ Nasienriglyne**

If any of the underlined key words/phrases in the **correct context** are omitted:  
- 1 mark per word/phrase.  
*Indien enige van die sleutelwoorde/frases in die korrekte konteks weggelaat word: - 1 punt per woord/frase*

#### ANY ONE

- Change in concentration of reactants or products per (unit) time. ✓✓
- Change in amount/number of moles/volume/mass of reactants or products per (unit) time. ✓✓
- Change in amount/number of moles/volume/mass of products formed or reactants used per (unit) time. ✓✓

#### ENIGE EEN

- Verandering in konsentrasie van reaktante of produkte per (eenheid) tyd.
- Verandering in hoeveelheid/aantal mol/volume/massa van reaktante of produkte per (eenheid) tyd.
- Verandering in hoeveelheid/aantal mol/volume/massa van produkte wat gevorm word of reaktante wat per (eenheid) tyd gebruik word.

#### OR/OF

The rate of changes in concentration/amount of moles/number of moles/volume/mass of reactants or products. ✓✓ (2 or 0)

*Die tempo van veranderinge in konsentrasie/hoeveelheid mol/aantal mol/volume/massa van reaktante of produkte. (2 of 0)*

(2)

5.2 No. ✓ There is more than one independent variable / Both the concentration of HCl and the initial temperature is different. ✓

*Nee. Daar is meer as een onafhanklike veranderlike/ Beide die konsentrasie van HCl en die aanvanklike temperatuur is verskillend.*

(2)

5.3 The larger the state of division the faster the reaction rate. ✓✓  
*Hoe groter die toestand van verdeeldheid, hoe vinniger die reaksietempo.* (2)

- 5.4
- Experiment 3 has a higher concentration. ✓
  - More particles with correct orientation/ higher average kinetic energy. ✓
  - More effective collision per unit time/ Frequency of the effective collision increases. ✓

OR

- Experiment 1 has a lower concentration. ✓
  - Less particles with correct orientation/ higher average kinetic energy. ✓
  - Less effective collision per unit time/ Frequency of the effective collision decreases. ✓
- 
- Eksperiment 3 het 'n hoër konsentrasie.
  - Meer deeltjies met korrekte oriëntasie/ hoër gemiddelde kinetiese energie.
  - Meer effektiewe botsing per tydseenheid/ Frekwensie van die effektiewe botsing neem toe

OF

- Eksperiment 1 het laer konsentrasie.
- Minder deeltjies met korrekte oriëntasie/ hoër gemiddelde kinetiese energie.
- Minder effektiewe botsing per tydseenheid/ Frekwensie van die effektiewe botsing neem af

(3)

5.5

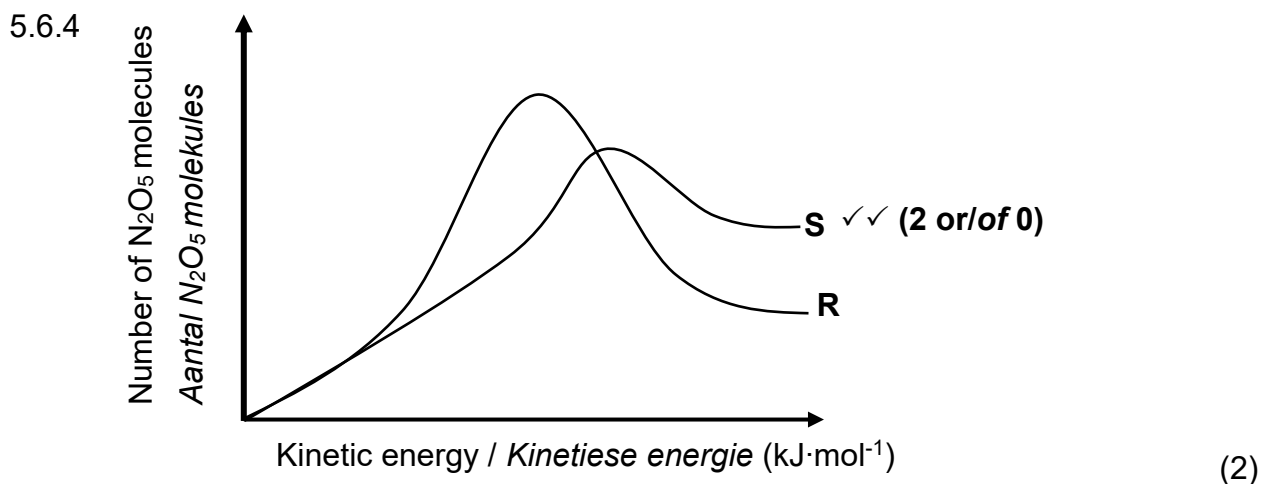
OPTION 1	OPTION 2
<p><b>Marking criteria</b></p> <p>a) Substitution into rate equation <i>Vervanging in tempo vergelyking</i></p> <p>b) Use of mole ratio to determine n (MgCO<sub>3</sub>) <i>Gebruik van mol verhouding om n (MgCO<sub>3</sub>) te bepaal</i></p> <p>c) Formula/ <i>Formule</i> <math>m = nM</math></p> <p>d) Substitution into <math>m = nM</math> <i>Vervanging in <math>m = nM</math></i></p> <p>e) <i>Final answer / Finale antwoord</i></p> $\text{Rate/ Tempo} = \frac{\Delta n}{\Delta t}$ $1,488 \times 10^{-4} = \frac{n-0}{40} \quad (\text{a}) \checkmark$ $n = 5,952 \times 10^{-3} \text{ mol}$ $n(\text{MgCO}_3) = n(\text{CO}_2)$ $n(\text{MgCO}_3) = 5,952 \times 10^{-3} \text{ mol} \quad (\text{b}) \checkmark$ $m = nM \quad (\text{c}) \checkmark$ $m(\text{MgCO}_3) = (5,952 \times 10^{-3})(84) \quad (\text{d}) \checkmark$ $m(\text{MgCO}_3) = 0,5 \text{ g} \quad (\text{e}) \checkmark$	<p><b>Marking criteria</b></p> <p>a) Comparing the rate of MgCO<sub>3</sub> and CO<sub>2</sub> ✓ <i>Vergelyk die tempo van MgCO<sub>3</sub> en CO<sub>2</sub></i></p> <p>b) Substitution into rate equation <i>Vervanging in tempo vergelyking</i></p> <p>c) Formula/ <i>Formule</i> <math>m = nM</math></p> <p>d) Substitution into <math>m = nM</math> <i>Vervanging in <math>m = nM</math></i></p> <p>e) <i>Final answer / Finale antwoord</i></p> $\text{Rate (MgCO}_3) = \text{rate (CO}_2) \quad (\text{a}) \checkmark$ $1,488 \times 10^{-4} = - \frac{0 - n}{40} \quad (\text{b}) \checkmark$ $n = 5,952 \times 10^{-3} \text{ mol}$ $m = nM \quad (\text{c}) \checkmark$ $m(\text{MgCO}_3) = (5,952 \times 10^{-3})(84) \quad (\text{d}) \checkmark$ $m(\text{MgCO}_3) = 0,5 \text{ g} \quad (\text{e}) \checkmark$

(5)

5.6 5.6.1 Released. ✓ Heat / Enthalpy of the reactants/  $H_r$  is greater than the Heat / Enthalpy of the products/  $H_p$  ✓  
 Vrygestel. Die warmte / entalpie van die reaktante /  $H_r$  is groter as die warmte / entalpie van die produkte /  $H_p$  (2)

5.6.2  $E_a = 33,33 - 26,6 \checkmark = 6,73 \text{ kJ}\cdot\text{mol}^{-1} \checkmark$  (2)

5.6.3 **Q** ✓ (1)



5.7  $V(\text{N}_2\text{O}_5)$  reacted / reageer =  $2V(\text{O}_2)$

$V(\text{N}_2\text{O}_5)$  reacted / reageer =  $2(10) \checkmark$

$V(\text{N}_2\text{O}_5)$  reacted / reageer =  $20 \text{ cm}^3$

$V(\text{N}_2\text{O}_5)$  remaining/ oorbly =  $25 - 20 \checkmark$

$V(\text{N}_2\text{O}_5)$  remaining/ oorbly =  $5 \text{ cm}^3 \checkmark$

(3)  
**[24]**

## QUESTION/VRAAG 6

- 6.1 6.1.1 The state at which the rate of the forward reaction equals the rate of the reverse reaction. ✓✓ (2 or 0)  
*Die toestand waarteen die tempo van die voorwaartse reaksie gelyk is aan die tempo van die terugwaartse reaksie. (2 of 0)* (2)
- 6.1.2 **X** ✓ (1)
- 6.1.3 Product favoured ✓. The concentration of **X**/ $N_2O_4$  is higher than the concentration of **Y**/ $NO_2$  ✓  
*Produkte bevoordeel. Die konsentrasie van **X**/ $N_2O_4$  is hoër as die konsentrasie van **Y**/ $NO_2$*  (2)
- 6.1.4 4 minutes / minute. ✓  
The concentrations of **X**/ $N_2O_4$  and **Y**/ $NO_2$  remains constant. ✓  
*Die konsentrasies van **X**/ $N_2O_4$  en **Y**/ $NO_2$  bly constant.* (2)
- 6.2.1 Pressure was decreased ✓  
  - Both forward and reverse reaction rates drop instantly. ✓
  - The forward reaction rate drops significantly more. ✓
  - Reverse reaction was favoured/The equilibrium shifted towards the left. ✓  
*Druk was verlaag*  
  - *Beide voorwaartse en terugwaartse reaksietempo daal onmiddellik.*
  - *Die voorwaartse reaksietempo daal aansienlik meer*
  - *Terugwaartse reaksie is bevoordeel/Die ewewig het na links verskuif* (4)
- 6.2.2 Addition of a catalyst / Addisie van 'n katalisator ✓ (1)
- 6.3.1 It is a reaction in which products can be converted back to reactants (and vice versa) ✓✓  
*Dit is reaksie waarin produkte terug na reaktanse, (en omgekeerd) omgeskakel kan word.* (2)
- 6.3.2 Low yield. ✓ The  $K_c$ -value is less than one. ✓  
*Lae opbrengs. Die  $K_c$ -waarde is kleiner as een.* (2)

## 6.3.3 Endothermic ✓

- An increase in temperature favours the endothermic reaction. ✓
- The equilibrium constant,  $K_c$ -value increases as the temperature increases. ✓
- The forward reaction is favoured /The equilibrium position shifts towards the right. ✓

*Endotermies*

- *Toename in temperatuur bevoordeel die endotermiese reaksie.*
- *Die ewewigskonstante,  $K_c$ -waarde, neem toe soos die temperatuur toeneem.*
- *Die voorwaartse reaksie word bevoordeel / Die ewewigsposisie verskuif na regs.*

(4)

6.4.1 **OPTION 1: MOLE OPTION**

- Calculating the equilibrium mole of  $Br_2$
- Use the ratio to calculate the change in mole of  $NOBr$  and  $NO$
- Calculating the equilibrium mole of  $NOBr$  and  $NO$
- Calculating the equilibrium concentration of  $NOBr$  and  $NO$
- Correct equilibrium constant formula
- Substituting into the correct equilibrium constant formula
- Final answer

**OPSIE 1: MOL OPSIE**

- Berekening van die ewewigsmol van  $Br_2$*
- Gebruik die verhouding om die verandering in mol  $NOBr$  en  $NO$  te bereken*
- Berekening van die ewewigsmol van  $NOBr$  en  $NO$*
- Berekening van die ewewigskonsentrasie van  $NOBr$  en  $NO$*
- Korrekte formule vir ewewigskonstante*
- Vervanging in die korrekte ewewigskonstante formule*
- Finale antwoord*

	2 NOBr(g)	⇌	2 NO(g)	Br <sub>2</sub> (g)
Initial mole <i>Aanvangsmol</i>	0,157 mol			
Change in mole <i>Verandering in mol</i>	<u>0,0195</u>		<u>0,0195</u> (b) ✓	9,75 x 10 <sup>-3</sup>
Equilibrium mole / <i>ewewigsmol</i>	<u>0,1375</u>		<u>0,0195</u> (c) ✓	0,0195x0,5 (a) ✓ = 9,75 x 10 <sup>-3</sup>
Equilibrium Concentration <i>Ewewigs konsentrasie</i> (mol·dm <sup>-3</sup> )	= <u>0,1375 / 0,5</u> = 0,275		= <u>0,0195/0,5</u> (d) ✓ = 0,039	0,0195

$$K_c = \frac{[\text{Br}_2][\text{NO}]^2}{[\text{NOBr}]^2} \quad (\text{e}) \quad \checkmark$$

$$K_c = \frac{(0,0195)(0,039)^2}{(0,275)^2} \quad (\text{f}) \quad \checkmark$$

$$K_c = 3,92 \times 10^{-4} \quad (\text{g}) \quad \checkmark$$

### OPTION 2: CONCENTRATION

- Calculating the initial concentration of NOBr
- Determine the change in concentration of Br<sub>2</sub>
- Use the ratio to calculate the change in concentration of NOBr and NO
- Calculating the equilibrium concentration of NOBr and NO
- Correct equilibrium constant formula
- Substituting into the correct equilibrium constant formula
- Final answer

### OPSIE 2: KONSENTRASIE

- Berekening van die aanvanklike konsentrasie van NOBr*
- Bepaal die verandering in die konsentrasie van Br<sub>2</sub>*
- Gebruik die verhouding om die verandering in konsentrasie NOBr en NO te bereken*
- Berekening van die ewewigskonsentrasie van NOBr en NO*
- Korrekte formule vir ewewigskonstante*
- Vervanging in die korrekte ewewigskonstante formule*
- Finale antwoord*

(7)

	2 NOBr(g)	$\rightleftharpoons$	2 NO(g)	Br <sub>2</sub> (g)
Initial conc. <i>Aanvang kons.</i>	0,157 / 0,5 = 0,314 (a) ✓			
Change in conc. <i>Verandering in kons</i>	<u>0,039</u>		<u>0,039</u> (c) ✓	0,0195 (b) ✓
Equilibrium Concentration <i>Ewewigs konsentrasie</i> (mol·dm <sup>-3</sup> )	<u>0,275</u>		<u>0,039</u> (d) ✓	0,0195

$$K_c = \frac{[\text{Br}_2][\text{NO}]^2}{[\text{NOBr}]^2} \text{ (e) } \checkmark$$

$$K_c = \frac{(0,0195)(0,039)^2}{(0,275)^2} \text{ (f) } \checkmark$$

$$K_c = 3,92 \times 10^{-4} \text{ (g) } \checkmark$$

6.4.2 REMAINS THE SAME / BLY DIESELFDE ✓

(1)  
[28]

## QUESTION/VRAAG 7

7.1.1 **Marking criteria/ Nasienriglyne**

If any of the underlined key words/phrases in the **correct context** are omitted:  
- 1 mark per word/phrase.

*Indien enige van die sleutelwoorde/frases in die korrekte konteks weggelaat word: - 1 punt per woord/frase*

A weak acid ionizes incompletely in water to produce low concentrations of  $H_3O^+$  ✓✓

*’n Swak suur ioniseer onvolledig in water om lae konsentrasies van  $H_3O^+$  te produseer.* (2)

7.1.2 Yes ✓ Both acids have the same concentration. ✓

*Ja. Beide sure het dieselfde konsentrasie.* (2)

7.1.3  $HNO_3$  ✓

For the same concentrations of the acids,  $HNO_3$  has a lower pH-value. ✓

$HNO_3$  have a higher concentration of  $H_3O^+$  ✓

$HNO_3$  ionises to a greater extend. ✓

*Vir dieselfde konsentrasies van die sure het  $HNO_3$  ’n laer pH-waarde.*

*$HNO_3$  het hoër konsentrasie  $H_3O^+$*

*$HNO_3$  ioniseer tot groter mate.* (4)

7.2.1 It is a substance that can act as either acid or base. ✓✓

*Dit is ’n stof wat as ’n suur of basis kan optree.* (2)

7.2.2 Conjugate base. ✓

$HC_2O_4^-$  has one less proton/ $H^+$  than  $H_2C_2O_4$  /  $H_2C_2O_4$  is one more proton/ $H^+$  than  $HC_2O_4^-$  /  $H_2C_2O_4$  donated one proton/ $H^+$  to produce  $HC_2O_4^-$ . ✓

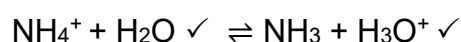
*Gekonjugeerde basis*

*$HC_2O_4^-$  het een proton/ $H^+$  minder as  $H_2C_2O_4$  /  $H_2C_2O_4$  is een proton/ $H^+$  meer as  $HC_2O_4^-$  /  $H_2C_2O_4$  het een proton/ $H^+$  geskenk om  $HC_2O_4^-$  te produseer.* (2)

7.3.1 Hydrolysis / Hidrolise ✓

(1)

7.3.2 Acidic / Suur ✓



Produces excess Hydronium /  $H_3O^+$  ions ✓

*Produseer oormaat hidronium- /  $H_3O^+$ -ione* (4)

7.4.1 Colourless / Kleurloos ✓

(1)

7.4.2 **Marking Criteria**

- Substituting  $c$  and  $V$  for NaOH into  $n = cV$
- Using correct mol ratio to calculate moles of  $H_2A$
- Calculating the concentration of  $H_2A$
- Formula  $c = m / MV$
- Substitution into  $c = m / MV$
- Calculation of molar mass of  $H_2C_4H_4O_6$  or  $H_2C_2O_4$
- Final answer

**Nasienkriteria**

- Vervanging van  $c$  en  $V$  vir NaOH in  $n = cV$
- Gebruik die korrekte molverhouding om mol  $H_2A$  te bereken
- Berekening van die konsentrasie van  $H_2A$
- Formule  $c = m / MV$
- Vervanging in  $c = m / MV$
- Berekening van molêre massa van  $H_2C_4H_4O_6$  of  $H_2C_2O_4$
- Finale antwoord

$$n(\text{NaOH}) = cV$$

$$n(\text{NaOH}) = (0,513)(29,1 \times 10^{-3}) \quad (\text{a}) \checkmark$$

$$n(\text{NaOH}) = 0,0149 \text{ mol}$$

$$n(H_2A) = \frac{1}{2} (0,0149) \quad (\text{b}) \checkmark$$

$$n(H_2A) = 7,45 \times 10^{-3} \text{ mol}$$

$$c(H_2A) = \frac{n}{V}$$

$$c(H_2A) = \frac{7,45 \times 10^{-3}}{25 \times 10^{-3}} \quad (\text{c}) \checkmark$$

$$c(H_2A) = 0,298 \text{ mol} \cdot \text{dm}^{-3}$$

$$c(H_2A) = \frac{m}{MV} \quad (\text{d}) \checkmark$$

$$0,298 = \frac{45}{M(1)} \quad (\text{e}) \checkmark$$

$$M = 151 \text{ g} \cdot \text{mol}^{-1}$$

$$M(H_2C_4H_4O_6) = 150 \text{ g} \cdot \text{mol}^{-1}$$

$$M(H_2C_2O_4) = 90 \text{ g} \cdot \text{mol}^{-1}$$

} Any one / Enige een (f)  $\checkmark$

$H_2A$  is tartaric acid / wynsteensuur /  $H_2C_4H_4O_6$  (g)  $\checkmark$

(7)  
[25]

TOTAL/TOTAAL: 150