

~~100g x 1/4 = 25g~~

Question 1

Answer saved

Marked out of 1.00

Using the formula below, calculate the quantity of Lignocaine hydrochloride required to make 25g of Lignocaine and Adrenaline Ointment APF21.

Lignocaine and Adrenaline Ointment APF

Lignocaine hydrochloride.....1g
 Purified water, freshly boiled and cooled.....4ml
 Adrenaline solution BP.....10ml
 Wool fat.....15g
 Liquid paraffin20g
 White soft paraffin.....50g

Select one:

- ☐ 2.5g
☐ 0.025g
☒ 0.25g
☐ 0.5g
☐ 0.125g

to 100g x 1/4 = 25g

Question 2

Answer saved

Marked out of 1.00

The following extract is from a prescription:

Prednisolone 5mg Tablets.

Sig: Take 25mg daily for 4 days then reduce by 5mg every 4 days until the course is finished (total course 20 days).

What is the exact number of tablets that you should supply?

Select one:

- ☐ 12
☒ 60
☐ 30
☐ 15
☐ None of the above

Handwritten calculations for Question 2:

25mg x 4 days = 100mg
 20mg x 4 days = 80mg
 15mg x 4 days = 60mg
 10mg x 4 days = 40mg
 5mg x 4 days = 20mg

Total = 100 + 80 + 60 + 40 + 20 = 300mg

300mg / 5mg per tablet = 60 tablets

Question 3

Not yet answered

Marked out of 1.00

Potassium Chloride Mixture has the following formula:

Potassium chloride	10 g
Lemon Syrup	20 ml
Methyl hydroxybenzoate Solution	1 ml
Purified Water to	100 ml

If the usual dose of the mixture is 10 ml, how much potassium is administered with each dose? (The Atomic weights of potassium and chloride are 39 and 35.5, respectively).

Select one:

- ☐ 5.2mg
☐ 10.5mg
☐ 5.9mg
☐ 260mg
☒ 520mg

$$KCl \text{ conc}^n = 10g / 100ml = 0.1g/ml$$

$$\text{in } 10 \text{ ml} = 0.1g/ml \times 10 = 1g \text{ in } 10 \text{ ml}$$

$$n = \frac{m}{M} = \frac{39}{39 + 35.5} = 0.5234 \text{ mol}$$

$$\text{how much} = 1g \times 0.5234 = 0.5234g = 523.4 \text{ mg}$$

Question 4

Not yet answered

Marked out of 1.00

What volume of a solution of lignocaine (1%) is needed for the preparation of 200 ml of a solution containing lignocaine at a concentration of 1 in 4,000?

Select one:

- ☐ 10mL
☐ 0.25mL
☐ 0.5mL
☒ 5mL
☐ 50mL

$$C_1 = 1\% \quad C_2 = 0.025\%$$

$$V_1 = ? \quad V_2 = 200 \text{ ml}$$

$$C_1 V_1 = C_2 V_2$$

$$V_1 = \frac{0.025 \times 200}{1} = 5 \text{ ml}$$

Question 5

Not yet answered

Marked out of 1.00

How much sodium chloride should be added in the preparation of 25ml of pilocarpine hydrochloride 2% eye drops to render them isotonic? (Use the information from Section G APF 21 to calculate your answer)

Select one:

- ☐ 10.5mg
☐ 0.525mg
☒ 105mg
☐ 0.105mg
☐ 0.015g

SCE values used to calculate the amount of adjusting substance needed to make solution isotonic

$\hookrightarrow 2g/100ml$ substance needed to make solution isotonic = 0.5g in 25ml

pilocarpine HCl 2% 25ml

add NaCl to render isotonic

$0.9 - 0.42 = 0.48$

$$SCE \text{ value} = 0.24$$

$$\text{amount of NaCl to be added} = 0.9 - (SCE \times \text{amount of substance})$$

$$= 0.9 - (0.24 \times 2)$$

$$= 0.42 \text{ g for } 100 \text{ ml solution}$$

$$\text{for } 25 \text{ ml solution} = 0.105 \text{ g} = 105 \text{ mg}$$

$$\text{amount of NaCl to be added} = 0.9 - (SCE \text{ value} \times \text{amount of substance required})$$

$$= 0.9 - (0.24 \times 2)$$

$$= 0.42 \text{ in } 100 \text{ ml}$$