Year 12 Chemistry **O&B Assignment 2**

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1.	Assume the density of propan-2-ol is 0.68 g/ml. If 10.0 ml of 2-propanol is oxidized using acidified dichromate solution,			
	(a)	Write balanced half equations for the reaction	/3	
	(b)	Hence write a balanced equation for the reaction	/1	
	(c)	Show that the expected mass of organic product is 6.6g.	/4	
	(d)	If a student carried out this experiment and obtained 4.7g of organic product, calculate the percentage of the experiment.	yield /1	
2.	State the products of the following reactions:			
	a)	Hex-1-ene and hydrogen gas	/1	
	b)	Propanal and Tollen's reagent	/2	
	c)	Octane and oxygen	/2	
	d)	Hexan-1-ol and acidified dichromate solution	/2	
3.	You are given a foul smelling mixture of the liquids heptanoic acid and heptan-1-ol, both of which are insolub water. Describe and explain how they can be separated.			
			/5	
4.	Three clear liquids are known to be different alcohols – ethanol, 2-methylbutan-2-ol and			
	butar by ch	n-2-ol, but the labels have been confused. Suggest a practical method for distinguishing between the alco emical means. Write appropriate equations for any reactions that occur.	hols /6	
5.	Write annotated (includes conditions) equations for the reaction between the following pairs of chemicals.			
	(a) (b)	Ethyl pentanoate and sodium hydroxide solution	/3 /2	
	(u) (c)	Euranoic aciu anu propan-1-oi N mathulhavan 2 amina and diluta hudrachlaria acid	/3 /2	
	(C)	/v-methymexan-z-amme and undle hydrochloric acid	/3	