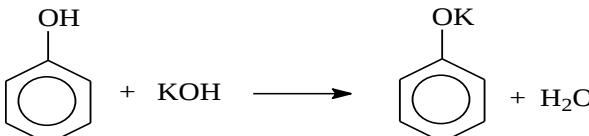


Câu	Đáp án	Điểm	Ghi chú																			
1 (1,5 điểm)	a) $\text{CH}_3-\underset{\text{OH}}{\text{CH}}-\text{CH}_2-\text{CH}_3 + \text{CuO} \xrightarrow{t^o} \text{CH}_3-\overset{\text{O}}{\underset{\text{O}}{\text{C}}}-\text{CH}_2-\text{CH}_3 + \text{Cu} + \text{H}_2\text{O}$	0,5																				
	b) 	0,5																				
	c) $\text{C}_2\text{H}_5\text{CHO} + \text{H}_2 \xrightarrow{\text{Ni}, t^o} \text{C}_2\text{H}_5\text{CH}_2\text{OH}$	0,5																				
2 (1,5 điểm)	$\text{CH}_3-\text{CH}_2-\text{CH}_2-\underset{\text{OH}}{\text{CH}_2}$ Butan – 1 – ol / ancol butylic $\text{CH}_3-\text{CH}_2-\underset{\text{OH}}{\text{CH}}-\text{CH}_3$ Butan – 2 – ol / ancol sec – butylic $\underset{\text{OH}}{\text{CH}_2}-\underset{\text{CH}_3}{\text{CH}}-\text{CH}_3$ 2 – metylpropan – 1 – ol / ancol isobutylic $\text{CH}_2-\underset{\text{CH}_3}{\underset{\text{OH}}{\text{C}}}-\text{CH}_3$ 2 – metylpropan – 2 – ol / ancol tert – butylic	-CTCT mỗi chất 0,25 -tên gọi chất 0,125																				
	<table><tr><th> h/ch tt </th><th>Andehit Axetic</th><th>Phenol</th><th>Glixerol</th><th>Toluen</th></tr><tr><td>AgNO₃/ NH₃, t^o</td><td>↓ Ag</td><td>–</td><td>–</td><td>–</td></tr><tr><td>Cu(OH)₂/ OH[–]</td><td>X</td><td>–</td><td>Dd Xanh lam</td><td>–</td></tr><tr><td>Dd Brom</td><td>X</td><td>↓ trắng</td><td>X</td><td>–</td></tr></table> $\text{Cu(OH)}_2 + 2\text{C}_3\text{H}_5(\text{OH})_3 \longrightarrow [\text{C}_3\text{H}_5(\text{OH})_2\text{O}]_2\text{Cu} + 2\text{H}_2\text{O}$	h/ch tt	Andehit Axetic	Phenol	Glixerol	Toluen	AgNO ₃ / NH ₃ , t ^o	↓ Ag	–	–	–	Cu(OH) ₂ / OH [–]	X	–	Dd Xanh lam	–	Dd Brom	X	↓ trắng	X	–	mỗi chất nhận đúng 0,5
h/ch tt	Andehit Axetic	Phenol	Glixerol	Toluen																		
AgNO ₃ / NH ₃ , t ^o	↓ Ag	–	–	–																		
Cu(OH) ₂ / OH [–]	X	–	Dd Xanh lam	–																		
Dd Brom	X	↓ trắng	X	–																		

	$\text{C}_6\text{H}_5\text{OH} + 3\text{Br}_2 \longrightarrow \text{C}_6\text{H}_2\text{Br}_3\text{OH}\downarrow + 3\text{HBr}$ $\text{CH}_3\text{CHO} + 2\text{AgNO}_3 + 3\text{NH}_3 + \text{H}_2\text{O} \xrightarrow{t^0} \text{CH}_3\text{COONH}_4 + 2\text{Ag} + 2\text{NH}_4\text{NO}_3$		
4 (1,0 điểm)	a. Phenol có tính axit $\text{C}_6\text{H}_5\text{OH} + \text{NaOH} \longrightarrow \text{C}_6\text{H}_5\text{ONa} + \text{H}_2\text{O}$ b. Andehit có tính khử $\text{RCHO} + 2\text{AgNO}_3 + 3\text{NH}_3 + \text{H}_2\text{O} \xrightarrow{t^0} \text{RCOONH}_4 + 2\text{Ag} + 2\text{NH}_4\text{NO}_3$ - Có thể dùng Br_2 hoặc O_2 .	0,5 0,5	- Sai cân bằng - 0,25
5 (2,0 điểm)	$\text{C}_n\text{H}_{2n+1}\text{OH} + \left(\frac{3n}{2}\right)\text{O}_2 \xrightarrow{t^0} n\text{CO}_2 + (n+1)\text{H}_2\text{O}$ $n_{\text{H}_2\text{O}} = 0,17 \text{ mol}$ $n_{\downarrow} = n_{\text{CO}_2} = 0,12 \text{ mol}$ $n_{\text{H}_2\text{O}} > n_{\text{CO}_2} \text{ Ancol no, đơn chức}$ $\bar{n} = 2,4$ $\Rightarrow \begin{cases} \text{C}_2\text{H}_5\text{OH} \\ \text{C}_3\text{H}_7\text{OH} \end{cases}$ $\text{C}_2\text{H}_5\text{OH} + \text{CuO} \xrightarrow{t^0} \text{CH}_3\text{CHO} + \text{Cu} + \text{H}_2\text{O}$ $\text{C}_3\text{H}_7\text{OH} + \text{CuO} \xrightarrow{t^0} \text{C}_2\text{H}_5\text{CHO} + \text{Cu} + \text{H}_2\text{O}$ $m_{\text{andehit C}_2\text{H}_5\text{OH}} = 2,48\text{g}$	0,25 0,25 0,25 0,25 0,25 0,25 0,25	- HS nhận biết cách khác đúng vẫn cho điểm tối đa
6 (2,5 điểm)	$\text{C}_3\text{H}_5(\text{OH})_3 + 3\text{Na} \longrightarrow \text{C}_3\text{H}_5(\text{ONa})_3 + 3/2 \text{H}_2$ $\text{C}_6\text{H}_5\text{OH} + \text{Na} \longrightarrow \text{C}_6\text{H}_5\text{-ONa} + 1/2 \text{H}_2$ $\text{C}_6\text{H}_5\text{OH} + 3\text{Br}_2 \longrightarrow \text{C}_6\text{H}_5\text{Br}_3\text{OH} + 3\text{HBr}$ $n_{\text{H}_2} = 0,85 \text{ mol}$ $n_{\text{kết tủa}} = 0,5 \text{ mol}$ $n_{\text{phenol}} = 0,5 \text{ mol}$ $n_{\text{glixerol}} = 0,4 \text{ mol}$ $m_{\text{hỗn hợp}} = 83,8 \text{ gam}$ $\% \text{ phenol} = 56,09\%$ $\% \text{ glixerol} = 43,91\%$	0,25 0,25 0,25 0,25 0,25 0,25 0,25 0,25 0,25	- Không cân bằng -0,125 - Làm tròn tại câu

Lưu ý: HS làm cách khác nhưng đúng vẫn cho điểm tối đa