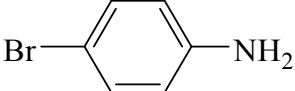
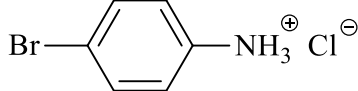


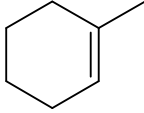
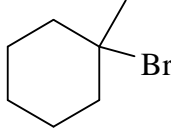
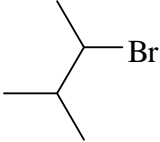
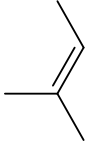
Marks
1

- Complete the following table. Make sure you complete the name of the starting material where indicated.

STARTING MATERIAL	REAGENTS/ CONDITIONS	CONSTITUTIONAL FORMULA(S) OF MAJOR ORGANIC PRODUCT(S)
	2 M HCl	

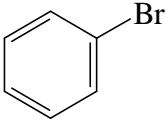
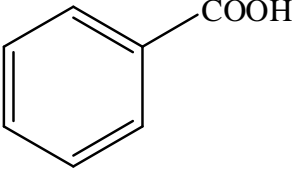
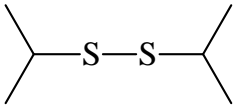
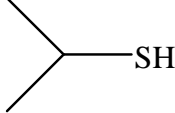
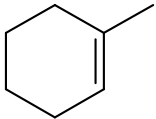
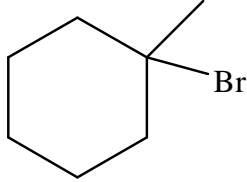
Marks
4

- Complete the following table. Make sure you complete the name of the starting material or major product where indicated.

STARTING MATERIAL	REAGENTS/ CONDITIONS	CONSTITUTIONAL FORMULA(S) OF MAJOR ORGANIC PRODUCT(S)
	HBr / CCl ₄ (solvent)	
$\text{CH}_3\text{CH}_2\underset{\text{Br}}{\text{CH}}\text{CH}_2\text{CH}_3$ <p>Name: 3-bromopentane</p>	(CH ₃) ₃ N	$\text{CH}_3\text{CH}_2\underset{\text{Br}^-}{\overset{\oplus}{\text{N}}(\text{CH}_3)}\text{CH}_2\text{CH}_3$
	hot conc. KOH in ethanol solvent	

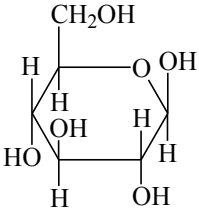
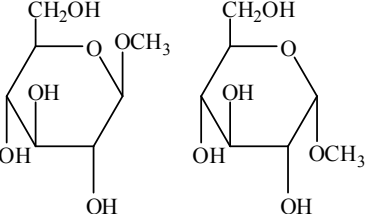
Marks
4

- Complete the following table.

STARTING MATERIAL	REAGENTS/ CONDITIONS	CONSTITUTIONAL FORMULA(S) OF MAJOR ORGANIC PRODUCT(S)
$\text{CH}_3\text{CH}_2\text{CH}_2\text{Br}$	$\text{N}(\text{CH}_3)_3$	$\text{Br}^- \quad \text{CH}_2\text{CH}_2\text{CH}_3$ $\quad \quad \quad $ $\quad \quad \quad \text{N}(\text{CH}_3)_3^+$
	1. Mg / dry ether 2. CO_2 3. H^+ / H_2O	
	Zn / H^+	2 
	$\text{HBr} / \text{CCl}_4$ (solvent)	 (Markovnikov)

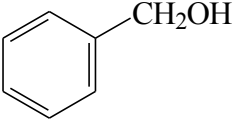
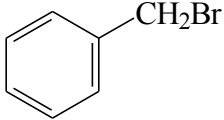
Marks
1

- Complete the following table.

STARTING MATERIAL	REAGENTS/ CONDITIONS	CONSTITUTIONAL FORMULA(S) OF MAJOR ORGANIC PRODUCT(S)
	$\text{CH}_3\text{OH} / \text{H}^+$ catalyst	

Marks
4

- Complete the following table. Make sure you give the name of the product or starting material where requested.

STARTING MATERIAL	REAGENTS/CONDITIONS	CONSTITUTIONAL FORMULA(S) OF MAJOR ORGANIC PRODUCT(S)
	<p style="text-align: center;">PBr₃</p>	
<p style="text-align: center;">CH₃CH₂CH₂Br</p>	<p style="text-align: center;">(CH₃CH₂)₃N</p>	<p style="text-align: center;">(CH₃CH₂)₃(CH₃CH₂CH₂)N⁺ Br⁻</p>
<p style="text-align: center;">CH₃CH₂CH₂CH₂CHO</p> <p>Name: pentanal</p>	<p style="text-align: center;">1. NaBH₄ 2. H⁺ / H₂O</p>	<p style="text-align: center;">CH₃CH₂CH₂CH₂CH₂OH</p>