Q. 9 Amongst the given set of reactants, the most appropriate for preparing 2° amine is ......

(a) 
$$2^{\circ}R - Br + NH_3$$

(b) 
$$2 R - Br + NaCN$$
 followed by  $H_2 / Pt$   
(c)  $1 R - NH_2 + RCHO$  followed by  $H_2 / Pt$ 

(d)  $1^{\circ}R - Br(2 \text{ mol}) + potassium phthalimide followed by H<sub>3</sub>O<sup>+</sup>/ heat$ 

Ans. 
$$(c)$$

Chemical transformation can be shown as

$$R - NH_2 + RCHO \longrightarrow [R - N = C - R]$$
 $H_2/Pt$ 
 $H$ 
 $R - N - C - R$ 
 $H$ 
 $H$ 
 $H$ 
 $H$ 
 $H$ 
 $H$ 
 $H$ 
 $H$ 
 $H$ 

While other given set of reactants give primary amine only.