Ph
$$H_3^{C}$$
 CH H_3^{C} H_3^{C

7)
$$H_3C$$
 H_2 H_3C H_3C

2)
$$H_{3}C \longrightarrow CI \qquad NaNH_{2} (2M) \qquad H_{3}C \longrightarrow CH$$

$$H_{2}C \longrightarrow CH_{2} \qquad Pt \qquad HC \longrightarrow CH$$

$$H_{3}C \longrightarrow CH \qquad EtOH \qquad H_{3}C \longrightarrow CH$$

$$H_{3}C \longrightarrow CH \qquad EtOH \qquad H_{3}C \longrightarrow CMgBr$$

$$H_{3}C \longrightarrow CH \qquad CH_{3}MgBr \qquad H_{3}C \longrightarrow CMgBr$$

$$H_{3}C \longrightarrow CH \longrightarrow CH_{3}MgBr \qquad H_{3}C \longrightarrow CMgBr$$

HC1

CuCl/NH₄Cl

 Ag_2C_2

1)

B)
$$H_3C$$
 CH_3 $KMnO_4$ $COOH$ H_2SO_4 , t^o H_3C CH_3

9) $Li^+C^ CH_3$ CH_3 CH_3CHO CH_3 $CH_$

2)
$$HC = C \cdot Na^{+}$$
 $CH_{3}CHO$ $DMSO$ $HC = CH_{3}$

3) $H_{3}C = CH$ $\frac{13 \cdot H_{3}COAS_{1} \cdot EON_{1} \cdot EOH}{21 \cdot Naint}$ $H_{3}C = CH$

4) $H_{3}C = CH$ $\frac{NaNH_{2}(2M)}{NH_{3} \cdot 33^{\circ}}$ $H_{3}C = CH$

5) $H_{3}C = CH$ $\frac{HCl(2M)}{H_{2}O, t^{\circ}}$ $\frac{H_{3}C}{Cl}$ $\frac{CH_{3}}{Cl}$

6) $HC = CH$ $\frac{HSC}{EOH, 175^{\circ}}$ $H_{3}C = CH_{3}$

7) $HC = CH$ $\frac{KOH}{EOH, 175^{\circ}}$ $H_{3}C = CH_{3}$

8) $HC = CH$ $\frac{HSC}{440^{\circ}}$ $H_{2}C = CH_{3}$

9) $H_{3}C = CH$ $\frac{HSC}{440^{\circ}}$ $\frac{H_{3}C}{H_{3}C}$ $\frac{CH_{3}}{CH_{3}}$

Pt

to

1)