Aldehyde / Ketones / carboxylic Acids

(1) Write name Reactions : 1) Rosenmund Reaction
2) Stephen Reaction
3) clemmensen Reduction
4) Wolff Kishner Reduction
5) cannizzaro Reaction

(2) Give chemical tests to distinguish between
(i) ethanal and propanal
(ii) Benzoic Acid & phenol.

(3) Arrange the following in increasing order of b.pt. :
CH_3CHO, CH_3COOH, CH_3CH_2OH

(4) complete the following reactions :
(i)  $\xrightarrow{NaCN/HCl}$
(ii) $(C_6H_5CH_2)_2Cd + 2CH_3COCl \longrightarrow$
(iii) $CH-\overset{CH_3}{\underset{|}{C}}H-COOH \xrightarrow[(ii)\ H_2O]{(i)\ Br_2/Red\ P} \longrightarrow$

(5) why is carboxylic acid stronger acid than phenol ?

(6) why $Cl-CH_2COOH$ is stronger acid than CH_3COOH ?

(7) Give chemical tests to distinguish between
(i) Acetophenone & benzaldehyde
(ii) Pentan-2-one & Pentan-3-one

(8) An organic compound with the molecular formula $C_9H_{10}O$ forms 2,4-DNP derivative reduces Tollen's reagent and undergoes cannizzaro reaction. On vigrous oxidation, it gives 1,2-benzenedicarboxylic acid. Identify the compound.