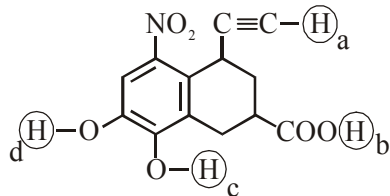
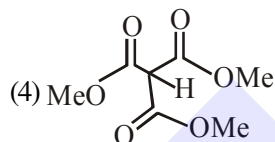
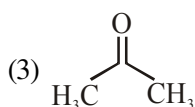
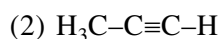
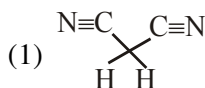


**ACIDITY & BASICITY**

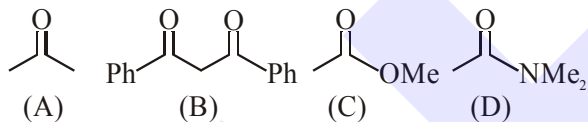
1. Arrange the following labelled hydrogens in decreasing order of acidity :



- (1)  $b > c > d > a$   
 (2)  $c > b > a > d$   
 (3)  $b > a > c > d$   
 (4)  $c > b > d > a$
2. Which one of the following compounds possesses the most acidic hydrogen ?

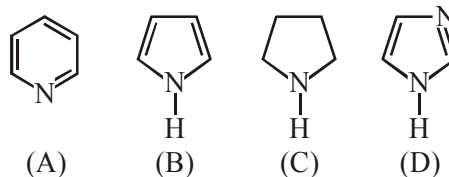


3. The increasing order of the acidity of the  $\alpha$ -hydrogen of the following compounds is :



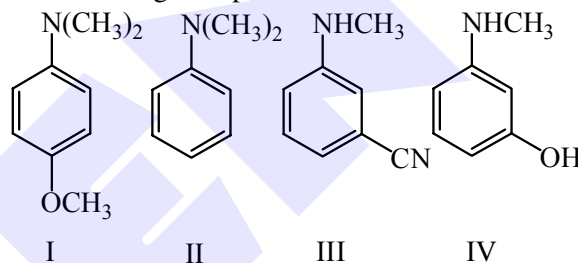
- (1)  $(C) < (A) < (B) < (D)$   
 (2)  $(B) < (C) < (A) < (D)$   
 (3)  $(A) < (C) < (D) < (B)$   
 (4)  $(D) < (C) < (A) < (B)$

4. The increasing order of basicity of the following compounds is

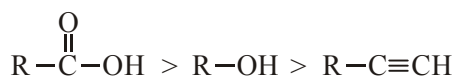


- (1)  $(A) < (B) < (C) < (D)$   
 (2)  $(B) < (A) < (C) < (D)$   
 (3)  $(D) < (A) < (B) < (C)$   
 (4)  $(B) < (A) < (D) < (C)$

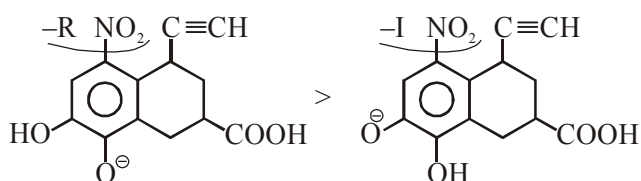
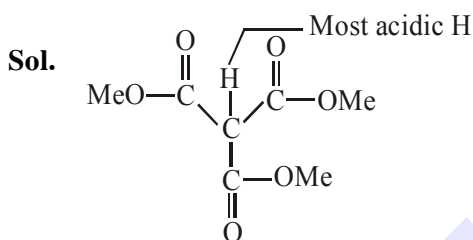
5. The increasing order of  $pK_b$  values of the following compounds is -



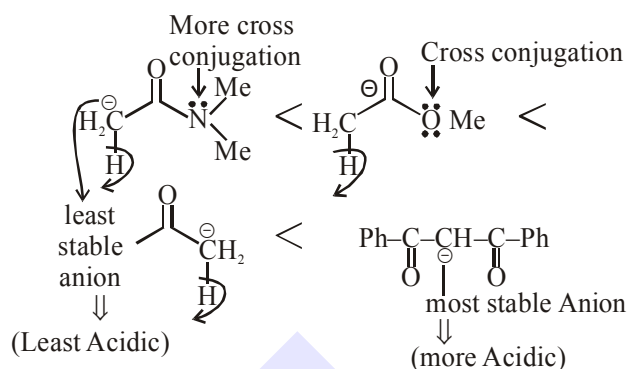
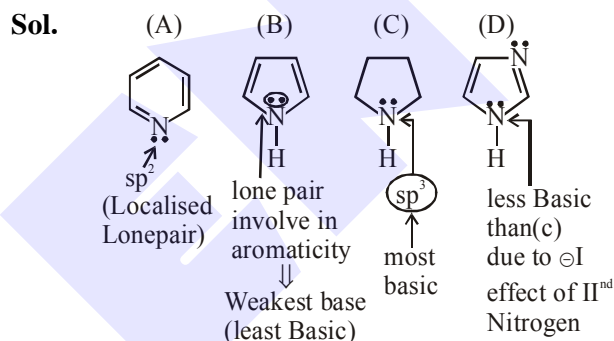
- (1)  $I < II < IV < III$   
 (2)  $II < IV < III < I$   
 (3)  $II < I < III < IV$   
 (4)  $I < II < III < IV$

**SOLUTION****1. Official Ans. by NTA (1)****Sol.** Acidic strength order :Reason :  $R-\overset{\text{O}}{\parallel}{C}-O^{\ominus}$  stable by equivalent resonance.

Stable :

So answer is  $b > c > d > a$ .**2. Official Ans. by NTA (4)**

Due to presence of 3 (-R) groups

**3. Official Ans. by NTA (4)****Sol.**  $D < C < A < B$ **4. Official Ans. by NTA (4)****5. Official Ans. by NTA (1)**