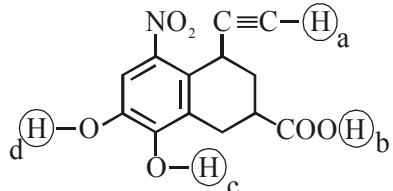


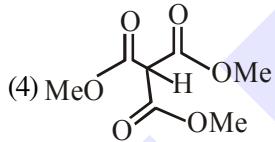
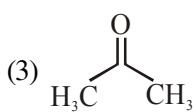
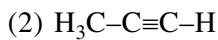
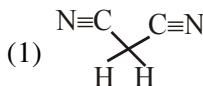
ACIDITY & BASICITY

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

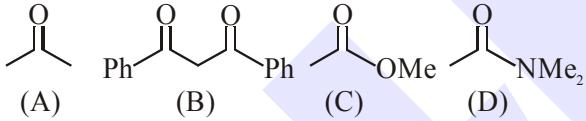


- (1) b > c > d > a
- (2) c > b > a > d
- (3) b > a > c > d
- (4) c > b > d > a

2. Which one of the following compounds possesses the most acidic hydrogen ?

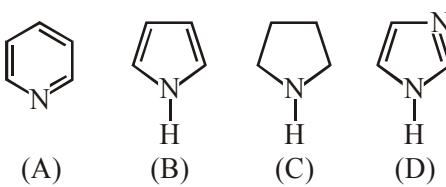


3. The increasing order of the acidity of the α -hydrogen of the following compounds is :



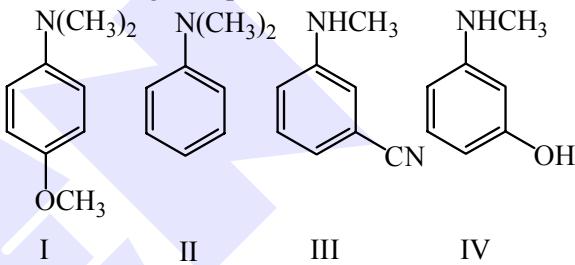
- (1) (C) < (A) < (B) < (D)
- (2) (B) < (C) < (A) < (D)
- (3) (A) < (C) < (D) < (B)
- (4) (D) < (C) < (A) < (B)

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

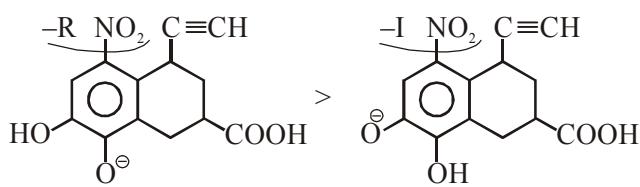
SOLUTION**1. Official Ans. by NTA (1)**

Sol. Acidic strength order :

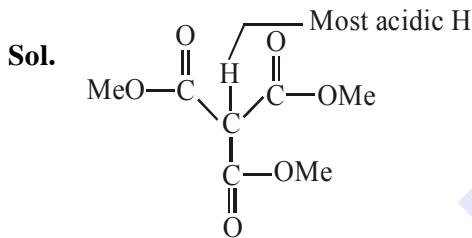


Reason : $\text{R}-\overset{\text{O}}{\underset{\parallel}{\text{C}}}-\text{O}^\ominus$ stable by equivalent resonance.

Stable :



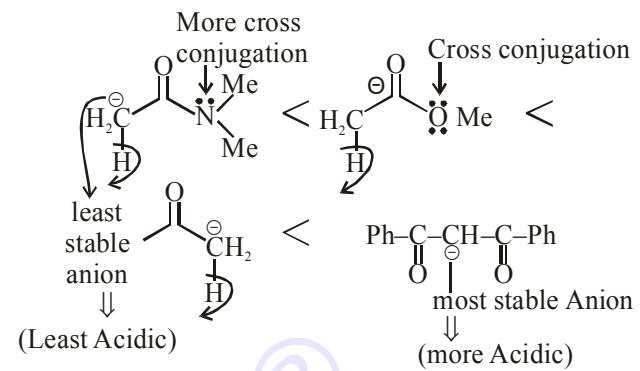
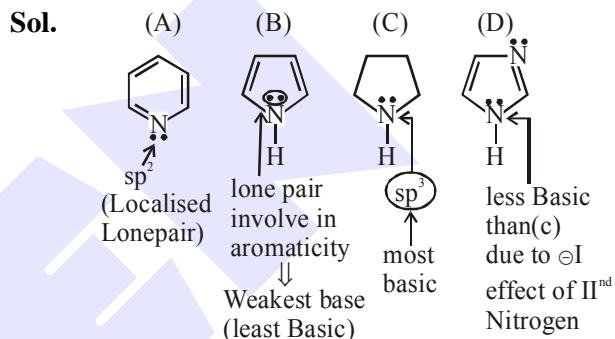
So answer is b > c > d > a.

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)**