

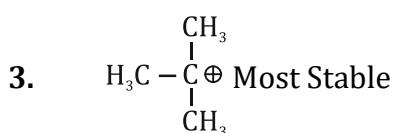


## DPP-01

## SOLUTION

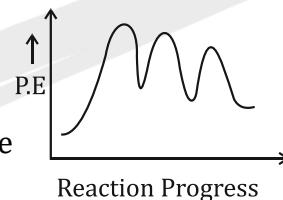
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1. (C)  $\rightarrow$  RCOR is a complete octet electrophile.
2.  $K^{\oplus}$  is not an electrophile.  
(Alkali metal cation is not electrophiles)

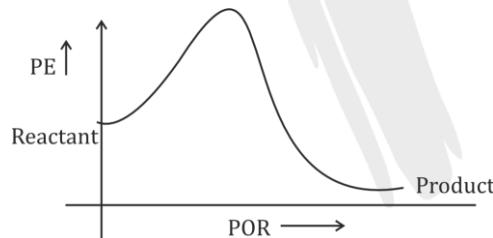


4. Both A and D are correct
  - (A) Minimum Number of TS are 3

- (D) If reaction will be endothermic then the graph will be



5. In this graph



- (A) It is Exothermic Reaction Graph  
(C) In this Reaction graph net heat is evolved.

6. correct order of nucleophilicity for (A,D) are :

- (A)  $\text{CH}_3-\overset{\ominus}{\text{CH}}_2 > \text{CH}_3-\text{CH}_2-\overset{\ominus}{\text{O}} > \text{Ph}-\overset{\ominus}{\text{O}} > \text{CH}_3-\overset{\text{O}}{\underset{\parallel}{\text{C}}}-\overset{\ominus}{\text{O}}$
- (D)  $\overset{\ominus}{\text{NH}_2} > \overset{\ominus}{\text{OH}} > \text{CH}_3-\overset{\ominus}{\text{O}} > \text{CH}_3\text{COO}^{\ominus}$



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7. (a)  $\Rightarrow$  (B), (D),

(b)  $\rightarrow$  (A), (C),

(c)  $\rightarrow$  (A), (B),

(d)  $\rightarrow$  (C), (D),

(e)  $\rightarrow$  (B), (D)



9. B Statement is incorrect

(A,C,D,E,F,G) are correct statements

(A) Structure of carbocation is planer due to  $sp^2$  hybridization

(B) Carbon free radical is not Lewis acid nor Lewis base

(C) Carbanion have complete octet due to having  $8 e^-$ s

(D) Spin magnetic moment of carbon free radical is equals to 2.

(E) Spin magnetic moment of carbanion is equals to 1.

(F) Carbocation is act as Lewis acid.

(G) Carbanion is act as a Nucleophile.



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10. (ii), (iii), (iv), (viii) → complete octet Electrophiles.

(i), (v), (vi) → Electrophiles without charge.

(vii) → Nucleophiles.

11. (A) (I) → (E), (II) →  $(\text{Nu}^\ominus)$

(B) (I) → (E), (II) → (E)

(C) (I) →  $(\text{Nu}^\ominus)$ , (II) → (E)

(D) (I) →  $(\text{Nu}^\ominus)$ , (II) → (E)

(E) (I) →  $(\text{Nu}^\ominus)$ , (II) → (E)

12.  $\text{H}^\ominus$ ,  $\text{D}^\ominus$ ,  $\text{NR}_2^\ominus$ ,  $\text{F}^\ominus$ ,  $\text{NH}_2^\ominus$  ⇒ are hard nucleophiles