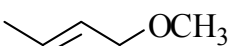
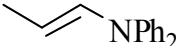
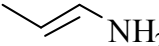
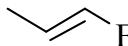
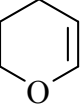
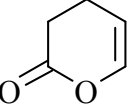
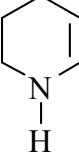
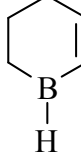
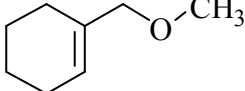
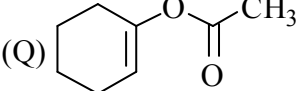
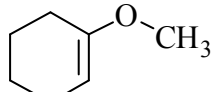
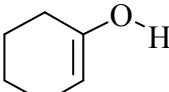
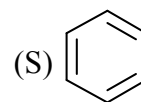
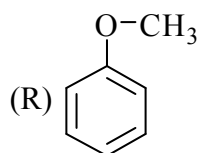
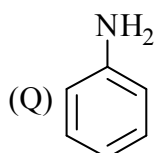
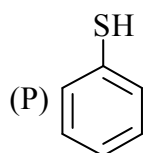
**GOC (3)**

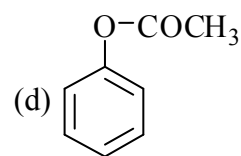
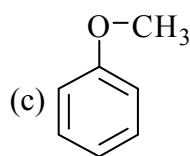
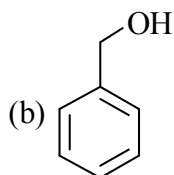
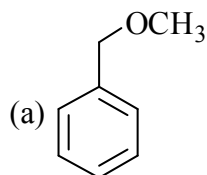
1. The group which is/are +M in nature
(a) $-\text{CH}_2^\oplus$ (b) $-\text{NR}_3^\oplus$ (c) $-\text{NR}_2$ (d) $-\text{OCOCH}_3$
2. Arrange the order of +M group as increasing order of their strength
(a) $-\text{NH}_2^\ddot{>} -\text{F} > -\text{OCH}_3 > -\text{Br}$ (b) $-\text{OCH}_3 > -\text{OH} > -\text{NH}_2 > -\text{F}$
(c) $-\text{NH}_2^\ddot{>} -\text{OH} > -\text{OCH}_3 > -\text{F}$ (d) $-\text{OCOCH}_3 > -\text{OCH}_3 > -\text{OH} > -\text{F}$
3. Arrange the group in increasing order of their +M strength
(a) $-\text{OPh} > -\text{OCH}_3 > -\text{OH}$ (b) $-\text{OCH}_3 > -\text{OH} > -\text{OPh}$
(c) $-\text{OH} > -\text{OPh} > -\text{OCH}_3$ (d) $-\text{OH} > -\text{OCH}_3 > -\text{OPh}$
4. The group which is/are -M in nature
(a) $-\text{BR}_2$ (b) $-\text{PR}_3^\oplus$ (c) $-\text{NR}_3^\oplus$ (d) $-\text{SR}$
5. The most electron rich alkene is
(a)  (b)  (c)  (d) 
6. The correct order of alkene towards reactivity of electrophile
(I)  (II)  (III)  (IV) 
(a) $\text{III} > \text{II} > \text{I} > \text{IV}$ (b) $\text{III} > \text{IV} > \text{I} > \text{II}$ (c) $\text{III} > \text{I} > \text{II} > \text{IV}$ (d) $\text{IV} > \text{III} > \text{II} > \text{I}$
7. The correct order of the reactivity of alkene towards electrophile
(P)  (Q) 
(R)  (S) 
(a) $\text{S} > \text{R} > \text{P} > \text{Q}$ (b) $\text{S} > \text{P} > \text{R} > \text{Q}$ (c) $\text{R} > \text{S} > \text{Q} > \text{P}$ (d) $\text{S} > \text{R} > \text{Q} > \text{P}$

8. The correct order reactivity of benzene ring towards electrophile

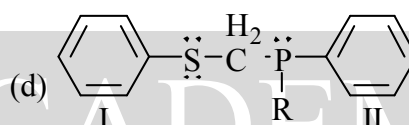
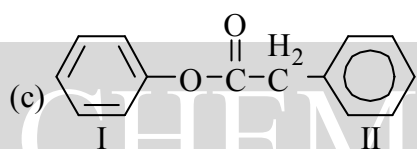
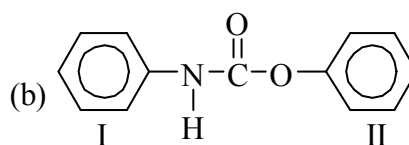
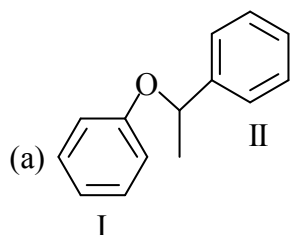


- (a) $Q > P > R > S$ (b) $Q > R > P > S$ (c) $P > Q > R > S$ (d) $S > Q > P > R$

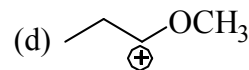
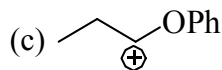
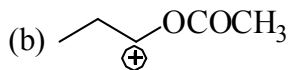
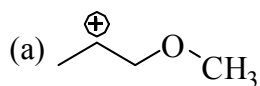
9. The most reactive benzene ring towards electrophile



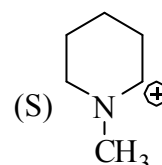
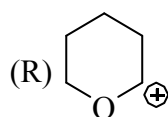
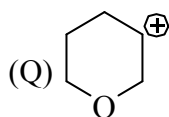
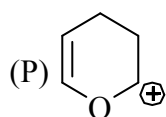
10. In which of the following, 2nd ring is more electron rich



11. The most stable carbocation is

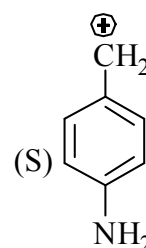
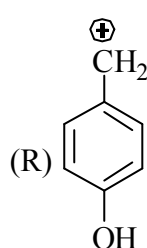
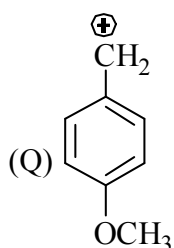
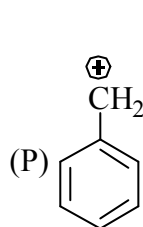


12. The correct order of the stability of carbocation is



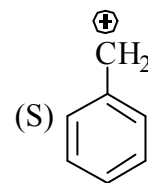
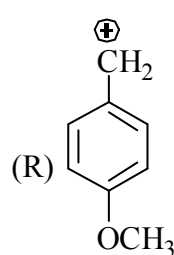
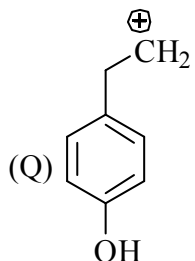
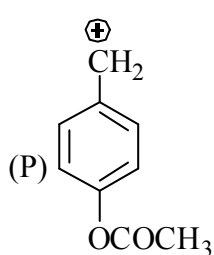
- (a) $P > R > Q > S$ (b) $S > R > Q > P$ (c) $S > P > R > Q$ (d) $S > R > P > Q$

13. The correct order of the stability of carbocation is



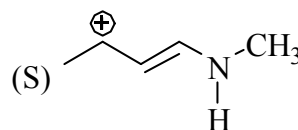
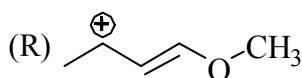
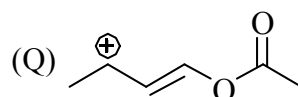
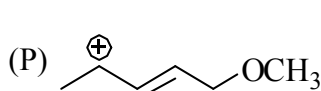
- (a) $P > Q > R > S$ (b) $Q > R > S > P$ (c) $S > Q > R > P$ (d) $S > R > Q > P$

14. The correct order of the stability of carbocation



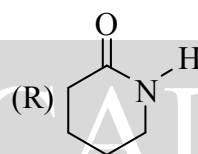
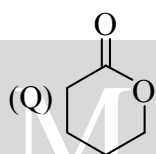
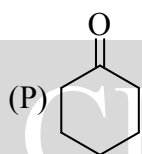
- (a) $Q > R > P > S$ (b) $R > P > Q > S$ (c) $R > P > S > Q$ (d) $P > R > Q > S$

15. The correct order of the stability of carbocation



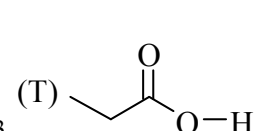
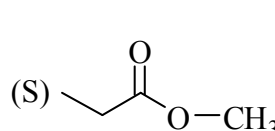
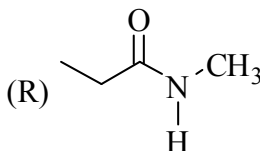
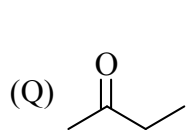
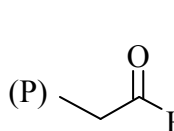
- (a) $R > P > Q > S$ (b) $S > R > Q > P$ (c) $S > Q > R > P$ (d) $S > R > P > Q$

16. The correct order of reactivity of carbonyl compound is



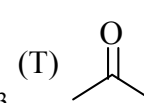
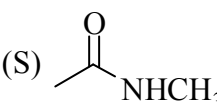
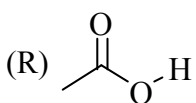
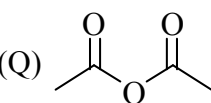
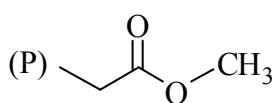
- (a) $P > R > Q$ (b) $P > Q > R$ (c) $R > P > Q$ (d) $Q > P > R$

17. The correct order of reactivity of the carbonyl groups



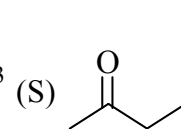
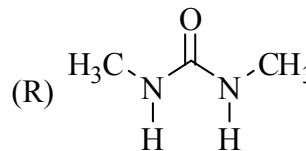
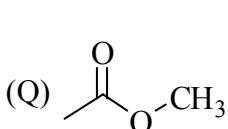
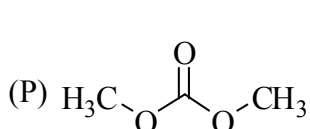
- (a) $P > Q > R > S > T$ (b) $P > Q > S > R > T$ (c) $P > Q > T > S > R$ (d) $P > Q > S > T > R$

18. The correct order of the reactivity



- (a) $P > Q > R > S > T$ (b) $Q > P > R > T > S$ (c) $T > Q > P > R > S$ (d) $R > P > Q > S > T$

19. The correct order of reactivity of the carbonyl groups



- (a) $Q > P > R > S$ (b) $S > Q > P > R$ (c) $R > S > P > Q$ (d) $S > Q > R > P$

ANSWER KEY

- | | | | | | | |
|----------|-------|-------|----------|-------|-------|-------|
| 1. a,c,d | 2. c | 3. d | 4. a,b,d | 5. c | 6. c | 7. d |
| 8. b | 9. c | 10. d | 11. d | 12. d | 13. d | 14. c |
| 15. b | 16. b | 17. d | 18. c | 19. b | | |