ORGANIC CHEMISTRY

DPP

DAILY PRACTICE PROBLEMS

DPP No. 16

Total Marks : 120

Max. Time : 120 min.

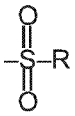
Topic : General Organic Chemistry

Type of Questions M.M., Min.

Fill in the Blanks ('–1' negative marking) Q.1 (3 marks, 3 min.) [3, 3]

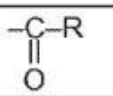
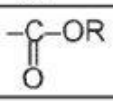
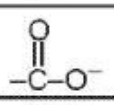
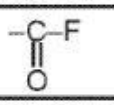
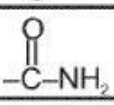
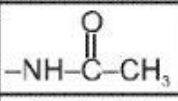
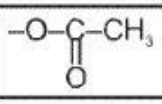
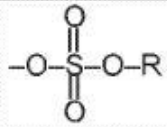
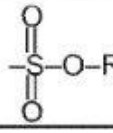
1. Classify the following groups as +m, –m, +I, –I, +HC, –HC.

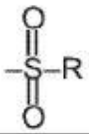
S.No.	Species	+ I	– I	+ m	– m	+ H.C.	– H.C.
1	$-NO_2$						
2	–CN						
3	–CHO						
4	$-\overset{\overset{O}{\|}}{C}-R$						
5	$-\overset{\overset{O}{\|}}{C}-OR$						
6	$-\overset{\overset{O}{\|}}{C}-O^-$						
7	$-\overset{\overset{O}{\|}}{C}-F$						
8	$-\overset{\overset{O}{\|}}{C}-NH_2$						
9	$-NH-\overset{\overset{O}{\|}}{C}-CH_3$						
10	$-O-\overset{\overset{O}{\|}}{C}-CH_3$						
11	–ONO						
12	$-O-NO_2$						
13	$-SO_3H$						
14	$-O-\overset{\overset{O}{\|}}{\underset{\underset{O}{\|}}{S}}-O-R$						
15	$-\overset{\overset{O}{\|}}{\underset{\underset{O}{\|}}{S}}-O-R$						
16	–NO						
17	–F						
18	–Cl						
19	–Br						

S.No.	Species	+ I	– I	+ m	– m	+ H.C.	– H.C.
20	–I						
21	$-\overset{\oplus}{N}\equiv N:$						
22	$-C\equiv\overset{\oplus}{O}:$						
23	–S–R						
24							
25	$-\overset{\oplus}{P}R_3$						
26	$-\overset{\oplus}{N}R_3$						
27	$-CH_3$						
28	$-\overset{\oplus}{S}R_2$						
29	$-CMe_3$						
30	$-CF_3$						
31	$-CCl_3$						
32	–Ph						
33	$-CH=CH_2$						
34	–COOH						
35	$-O-CH_3$						
36	$-\ddot{O}H$						
37	$-\dot{N}H_2$						
38							
39	$-\overset{\ominus}{\ddot{C}}R_2$						
40	$-\overset{\square}{C}R_2$						

Answer Key

DPP No. # 16

S.No.	Species	+ I	– I	+ m	– m	+ H.C.	– H.C.
1	$-NO_2$		✓		✓		
2	–CN		✓		✓		
3	–CHO		✓		✓		
4			✓		✓		
5			✓		✓		
6		✓			✓		
7			✓		✓		
8			✓		✓		
9			✓	✓			
10			✓	✓			
11	–ONO		✓	✓			
12	$-O-NO_2$		✓	✓			
13	$-SO_3H$		✓		✓		
14			✓	✓			
15			✓		✓		

16	–NO		✓	✓	✓		
17	–F		✓	✓			
18	–Cl		✓	✓	✓		
19	–Br		✓	✓	✓		
20	–I		✓	✓	✓		
21	$-\overset{\oplus}{N}\equiv N:$		✓		✓		
22	$-C\equiv\overset{\oplus}{O}:$		✓		✓		
23	–S–R		✓	✓	✓		
24			✓		✓		
25	$-\overset{\oplus}{P}R_3$		✓		✓		
26	$-\overset{\oplus}{N}R_3$		✓				
27	$-CH_3$	✓				✓	
28	$-\overset{\oplus}{S}R_2$		✓		✓		
29	$-CMe_3$	✓					
30	$-CF_3$		✓				✓
31	$-CCl_3$		✓				✓

32	–Ph		✓	✓	✓		
33	$-CH=CH_2$		✓	✓	✓		
34	–COOH		✓		✓		
35	$-O-CH_3$		✓	✓			
36	$-\ddot{O}H$		✓	✓			
37	$-\ddot{N}H_2$		✓	✓			
38			✓	✓			
39	$-\ddot{C}R_2$	✓		✓			
40	$-\overset{\oplus}{C}R_2$		✓		✓		