

PYQSide

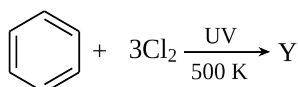
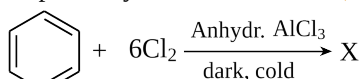
NEET HYDROCARBONS — CHEMICAL PROPERTIES OF AROMATIC HYDROCARBONS — PYQS

Max. Marks: 72

Questions: 18

Section A (MCQ)

- Q.1** The number of chlorine atoms present in the organic products X and Y of the following reactions, respectively are : [NEET (UG) 2026]



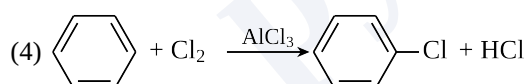
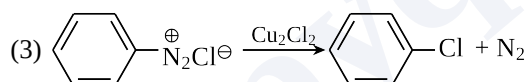
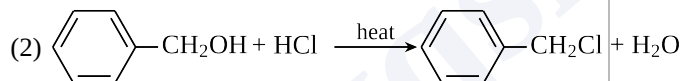
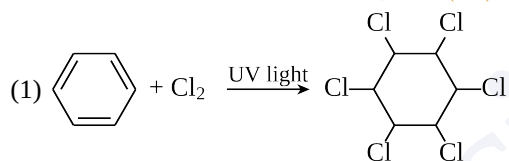
- (1) 3 and 3 (2) 6 and 6 (3) 6 and 3 (4) 3 and 6

Scan or tap for the full solution



- Q.2** Among the following, the reaction that proceeds through an electrophilic substitution, is :

[NEET (UG) 2019]



Scan or tap for the full solution



- Q.3** Consider the nitration of benzene using mixed conc. H_2SO_4 and HNO_3 . If a large amount of KHSO_4 is added to the mixture, the rate of nitration will be

[NEET 2016 (Phase 1)]

- (1) unchanged (2) doubled
(3) faster (4) slower

Scan or tap for the full solution



- Q.4** Which of the following can be used as halide component for Friedel-Crafts reaction?

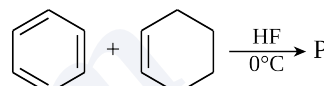
[NEET 2016 (Phase 2)]

- (1) Chlorobenzene (2) Bromobenzene
(3) Chloroethene (4) Isopropyl chloride

Scan or tap for the full solution

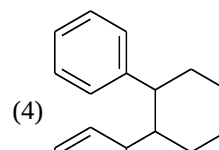
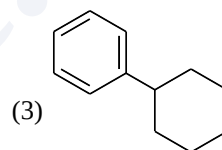
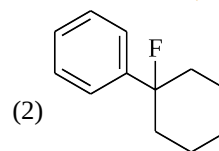
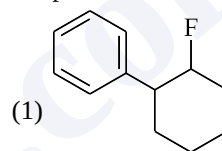


- Q.5** In the given reaction,



the product P is

[NEET 2016 (Phase 2)]



Scan or tap for the full solution



- Q.6** The oxidation of benzene by V_2O_5 in the presence of air produces

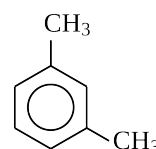
[AIPMT 2015]

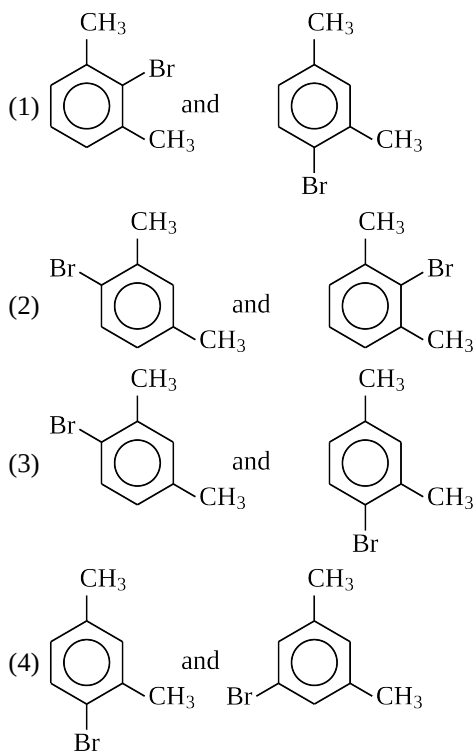
- (1) maleic anhydride (2) benzoic acid
(3) benzaldehyde (4) benzoic anhydride.

Scan or tap for the full solution



- Q.7** What products are formed when the following compound is treated with Br_2 in the presence of FeBr_3 ? [AIPMT 2014]





Scan or tap for the full solution



Q.8 Some meta-directing substituents in aromatic substitution are given. Which one is most deactivating ? [NEET 2013]

- (1) $-\text{COOH}$ (2) $-\text{NO}_2$ (3) $-\text{C}\equiv\text{N}$ (4) $-\text{SO}_3\text{H}$

Scan or tap for the full solution



Q.9 Which of the following compounds will not undergo Friedel-Crafts reaction easily? [NEET 2013]

- (1) Nitrobenzene (2) Toluene
(3) Cumene (4) Xylene

Scan or tap for the full solution



Q.10 Nitrobenzene on reaction with conc. $\text{HNO}_3/\text{H}_2\text{SO}_4$ at $80-100^\circ\text{C}$ forms which one of the following products? [NEET 2013]

- (1) 1, 4-Dinitrobenzene
(2) 1, 2, 4 - Trinitrobenzene
(3) 1, 2-Dinitrobenzene
(4) 1, 3-Dinitrobenzene

Scan or tap for the full solution



Q.11 Among the following compounds the one that is most reactive towards electrophilic nitration is [AIPMT 2012 (Prelims)]

- (1) benzoic acid (2) nitrobenzene
(3) toluene (4) benzene

Scan or tap for the full solution



Q.12 Benzene reacts with CH_3Cl in the presence of anhydrous AlCl_3 to form [AIPMT 2009]

- (1) chlorobenzene (2) benzyl chloride
(3) xylene (4) toluene.

Scan or tap for the full solution



Q.13 Nitrobenzene can be prepared from benzene by using a mixture of conc. HNO_3 and conc. H_2SO_4 . In the mixture, nitric acid acts as a/an [AIPMT 2009]

- (1) acid (2) base
(3) catalyst (4) reducing agent

Scan or tap for the full solution



Q.14 The order of decreasing reactivity towards an electrophilic reagent, for the following would be [AIPMT 2007]

- (i) benzene (ii) toluene
(iii) chlorobenzene (iv) phenol
(1) (ii) > (iv) > (i) > (iii) (2) (iv) > (iii) > (ii) > (i)
(3) (iv) > (ii) > (i) > (iii) (4) (i) > (ii) > (iii) > (iv)

Scan or tap for the full solution



Q.15 Using anhydrous AlCl_3 as catalyst, which one of the following reactions produces ethylbenzene (PhEt)? [AIPMT 2004]

- (1) $\text{H}_3\text{C}-\text{CH}_2\text{OH} + \text{C}_6\text{H}_6$ (2) $\text{CH}_3-\text{CH}=\text{CH}_2 + \text{C}_6\text{H}_6$
(3) $\text{H}_2\text{C}=\text{CH}_2 + \text{C}_6\text{H}_6$ (4) $\text{H}_3\text{C}-\text{CH}_3 + \text{C}_6\text{H}_6$

Scan or tap for the full solution



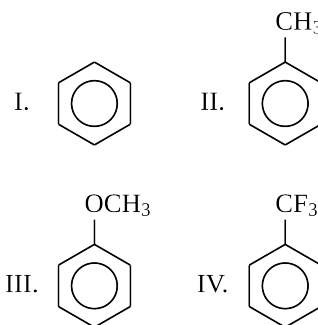
Q.16 The correct order of reactivity towards the electrophilic substitution of the compounds aniline (I), benzene (II) and nitrobenzene (III) is [AIPMT 2003]

- (1) III > II > I (2) II > III > I
(3) I < II > III (4) I > II > III

Scan or tap for the full solution



Q.17 Increasing order of electrophilic substitution for following compounds [AIPMT 2000]



(1) IV < I < II < III

(2) III < II < I < IV

(3) I < IV < III < II

(4) II < III < I < IV

Scan or tap for the
full solution

Q.18 In Friedel-Crafts reaction, toluene can be prepared by

[AIPMT 2000]

(1) $\text{C}_6\text{H}_6 + \text{CH}_3\text{Cl}$ (2) $\text{C}_6\text{H}_5\text{Cl} + \text{CH}_4$ (3) $\text{C}_6\text{H}_6 + \text{CH}_2\text{Cl}_2$ (4) $\text{C}_6\text{H}_6 + \text{CH}_3\text{COCl}$ Scan or tap for the
full solution

ANSWER KEY

Ques.	1	2	3	4	5	6	7	8	9	10	11
Ans.	2	4	4	4	3	1	3	2	1	4	3
Ques.	12	13	14	15	16	17	18				
Ans.	4	2	3	3	4	1	1				