

CHEMISTRY-12	Chapter # 09 (Complete) Test: B-3		
	Name:	Class:	ID:
Date: / /	Marks	30	Marks Obtained:
Time Allowed: 60 Min.	Total:		

Maximum Marks: 06 **(OBJECTIVE TYPE)** Time Allowed: 10 Min.

NOTE: Tick The Correct Option:

- Amongst the following the compounds that can be most readily sulphonated is:
 (a) Toluene (b) Benzene (c) Nitrobenzene (d) Chlorobenzene
- During nitration of benzene, the active nitrating agent is:
 (a) NO_3 (b) NO_2^+ (c) NO_2^- (d) HNO_3
- Toluene $\xrightarrow[100^\circ\text{C}]{\text{HNO}_3 + \text{H}_2\text{SO}_4}$?
 (a) o-Nitrotoluene (b) m-Nitrotoluene (c) p-Nitrotoluene (d) 2,4,6-TNT
- The molecular mass of benzene was determined by:
 (a) Elemental analysis (b) Combustion analysis
 (c) Vapour density method (d) Mass spectrometry
- Kekule proposed _____ resonance structures for benzene.
 (a) 2 (b) 3 (c) 4 (d) 5
- When benzene is strongly heated with air in the presence of V_2O_5 , the product formed is:
 (a) Acetic anhydride (b) Benzoic anhydride (c) Oxalic anhydride (d) Maleic anhydride

Maximum Marks: 24 **(SUBJECTIVE TYPE)** Time Allowed: 50 Min.

SECTION-I

- Q.2: Give brief answers to the following questions: (16)
- Define phenyl and aryl groups.
 - Draw structural formulas of:
 a) p-Dibenzylbenzene. b) 2-Amino-5-bromo-3-nitrobenzenesulphonic acid.
 - What is Wurtz-Fittig reaction?
 - What happens when toluene is treated with chlorine in the presence of sunlight?
 - What happens when benzene is heated with conc. H_2SO_4 at 250°C ?
 - How can toluene be converted into benzoic acid?
 - How will you prepare o-nitrotoluene from benzene in two steps?
 - Why is benzene less reactive than alkenes although it has three double bonds?

SECTION-II

NOTE: Attempt All Questions: (08)

Q.3: Write down four methods for the preparation of benzene.

Q.4: What are Friedal-Crafts reactions? Explain the mechanism of Friedal-Crafts alkylation and acylation.