

<b>CHEMISTRY-12</b>	<b>Chapter # 09 (Complete) Test: A-3</b>		
	Name:	Class:	ID:
Date: / /	<b>Marks Total: 19</b>	<b>Marks Obtained:</b>	
Time Allowed: 40 Min.			

Maximum Marks: 05 **(OBJECTIVE TYPE)** Time Allowed: 10 Min.

**NOTE:** Tick The Correct Option:

- Which of the following acids can be used as a catalyst in Friedel-Crafts reactions?
  - $\text{AlCl}_3$
  - $\text{HNO}_3$
  - $\text{BeCl}_2$
  - $\text{NaCl}$
- Aromatic compounds burn with sooty flame because:
  - They have high percentage of hydrogen
  - They have a ring structure
  - They have high percentage of carbon
  - They resist reaction with air
- The C-C bond length in benzene is:
  - 1.34 Å
  - 1.20 Å
  - 1.39 Å
  - 1.54 Å
- Which one is not a meta directing group?
  - COOH
  - CHO
  - COR
  - NH<sub>2</sub>
- Benzene gives \_\_\_\_\_ disubstituted product(s).
  - One
  - Two
  - Three
  - Six

Maximum Marks: 14 **(SUBJECTIVE TYPE)** Time Allowed: 30 Min.

### SECTION-I

Q.2: Give brief answers to the following questions: (10)

- What are aromatic hydrocarbons? Give examples.
- How can it be proved that benzene has three double bonds?
- How will you convert phenol into benzene?
- What is nitration of benzene? Give its mechanism.
- How will you prepare o-nitrotoluene from benzene in two steps?

### SECTION-II

**NOTE:** Attempt All Questions: (04)

Q.3: Convert benzene into: (i) Cyclohexane (ii) Maleic acid (iii) Gloxal (iv) Benzene sulphonic acid (v) Acetophenon.