

**B.Sc. (Industrial Chemistry) Examination APRIL 2016**  
**Semester-III**  
**Paper- IC-303: Heavy and Fine Chemicals & Catalyst-I**  
**Subject Code: 3797**

Time: 2.30 Hours

Total Marks: 70

- Que.1 (A) Give a manufacturing of ammonium nitrate with flow sheet diagram. [10]  
(B) Explain industrial application of ammonium nitrate. [04]  
OR
- Que.1 (A) How industrially ammonium sulphate is prepared? Explain with flow sheet diagram [10]  
(B) Draw structure of any one fullerene molecule. [04]
- Que.2 (A) Give a production of phosphorus by Furness process [10]  
(B) Give a uses of KCl. [04]  
OR
- Que.2 (A) How industrially hydro bromic acid was manufactured? Explain in detail. [10]  
(B) Give a uses of sodium thiosulphate. [04]
- Que.3 (A) Give a manufacturing of NaCl with flow sheet diagram. [10]  
(B) Give industrial usefulness of NaCl. [04]  
OR
- Que.3 (A) Explain manufacturing process of fluorine with neat sketch. [10]  
(B) Give uses of iodine. [04]
- Que.4 (A) What is a catalytic reaction? Explain with example. [10]  
(B) Write about heterogeneous catalyst. [04]  
OR
- Que.4 (A) What is homogeneous catalytic reaction? Explain with example. [10]  
(B) State properties of solid catalyst. [04]
- Que.5 (A) What is catalysis? Give characteristics of catalyst. [10]  
(B) What are inhibitors? Explain it. [04]  
OR
- Que.5 (A) What are contact masses? Give its properties and uses. [10]  
(B) What are promoters? Explain it. [04]