

**Industrial Chemistry, Examination Nov- 2014**  
**B. Sc. Semester-III**  
**Paper- IC-303: Heavy and Fine Chemicals & Catalyst-I**  
**Subject Code: 3797**

Time: 2 Hours

Total Marks: 70

- Que.1 (A) How  $\text{NH}_3$  was industrially manufactured? 10  
(B) What are the fullerenes? 04  
OR
- Que.1 (A) Discuss industrial production of phosphoric acid by strong acid process. 10  
(B) What is industrial carbon? Explain it. 04
- Que.2 (A) Explain production of bromine with flow sheet diagram. 10  
(B) Give application of KCl in chemical process industry. 04  
OR
- Que.2 (A) With suitable sketch explain production of phosphorus by Furness process. 10  
(B) State toxicity of bromine on human. 04
- Que.3 (A) How industrially ammonium sulphate is prepared? Explain with flow sheet diagram 10  
(B) Give a uses of borax. 04  
OR
- Que.3 (A) Give industrial production of NaCl by solar evaporation of sea water. 10  
(B) Give an application of sodium chloride. 04
- Que.4 (A) Write a manufacturing of fluorine with neat sketch. 10  
(B) What is homogeneous catalyst? Give example. 04  
OR
- Que.4 (A) Write a not of promoters and inhibitors 10  
(B) What are catalytic poisons? 04
- Que.5 (A) Defined the term "catalysis" with examples. Explain its characters. 10  
(B) What are contact masses? Give examples. 04  
OR
- Que.5 (A) Write a mechanism of catalytic reaction 10  
(B) Give properties of contact masses. 04