

Oct-15

B. Sc. (Industrial Chemistry) Examination
Semester-V
Paper- IC-501: Unit Operations & Unit Processes
Subject Code: 4300

Time: 2.30 Hours Total Marks: 70

- Que.1 (A) What is unit operation? Draw a symbol of multiple effect evaporator, tunnel dryer and condenser. 10
(B) Draw a symbol of centrifuge and condenser. 04
OR
- Que.1 (A) What is crystal and crystallization? Explain evaporating crystallizer with neat sketch. 10
(B) Draw a symbol of rotary dryer and batch distillation. 04
- Que.2 (A) What is mixing? Explain muller with neat sketch. 10
(B) What is a unit process? Explain with example. 04
OR
- Que.2 (A) How industrially TNT is manufactured? 10
(B) What is constant rate filtration? Explain it with example. 04
- Que.3 (A) How industrially nitro benzene is manufactured from benzene? 10
(B) Write about filter medium. 04
OR
- Que.3 (A) Define the term drying. Write about spray dryer. 10
(B) Write a note on tray dryer. 04
- Que.4 (A) How industrially ethanol is manufactured from ethylene? 10
(B) How solid-liquid mixture is worked in chemical industry? 04
OR
- Que.4 (A) Give industrial production of urea with neat sketch. 10
(B) Define the term alkylation with example. 04
- Que.5 (A) Give industrial production of nitrobenzene with chemical reaction. 10
(B) How industrially liquid-liquid is mixed? 04
OR
- Que.5 (A) Discuss industrial production of styrene form benzene with flow sheet diagram. 10
(B) Write about tank crystalliser. 04