# Jadavpur University Department of Pharmaceutical Technology Kolkata-700032.

## M.Pharm/ 1<sup>st</sup> year/ 2<sup>nd</sup> Sem/Time 3 hrs/ FM 75/ 2023-24 Course: Pharmaceutical Production Technology (MIP 203)

## Group A: Answer All (10\*2=20).

1.

- i. What is shellac?
- ii. Explain Maillard Reaction.
- iii. Give examples of tablet coating machines.
- iv. Give the types of Freeze dryer.
- v. Write down the principle of spray drying.
- vi. Why parenteral preparations should have high purity?
- vii. How zone groupings are done for parenteral preparation?
- viii. What kind of modified lightning fixture is used for parenteral preparation?
- ix. Why warehouse required in pharmaceutical plant?
- x. What is an aseptic room? Difference between aseptic and clean room.

### Group B: Answer any seven (7\*5=35)

- 2. Give advantages of granulation for tablet compression.
- 3. Give the steps of sugar coating.
- 4. Give applications of Lyophilization technique in pharmaceutical industry.
- 5. Describe the construction of spray dryer with diagram.
- 6. Describe defects that can be observed during capsule filling process.
- 7. Describe defects that can be observed during capsule shell production process
- 8. Mention the points as per GMP required for sterile product preparation.
- 9. Give a short description on warehouse required for parenteral product preparation.
- 10. How utilities in parenteral preparation are taken care off.

#### Group c: Answer any two (10\*2=20)

- 11. Write in details the construction and working of Freeze dryer with diagram.
- 12. For parenteral product preparation how wall and floor treatment is done with lightning Fixtures process. Describe in details.
- 13. Draw and describe process flow diagram for parenteral product preparation.