

( 3 Hours )

[Total Marks : 75]

- N.B.:**
1. All question are compulsory
  2. Draw diagram whether necessary.
  3. Figure to right indicate full marks.

**Q.1 MCQ: All questions are compulsory**

**20M**

- 1 For a tablet weighing 75 mg, the limit of weight variation as per IP is  $\pm$  \_\_\_\_\_ w/w
  - a. 5%
  - b. 10%
  - c. 7.5%
  - d. 2.5%
- 2 Binder is used in
  - a. shampoo
  - b. lipstick
  - c. toothpaste
  - d. cold cream
- 3 \_\_\_\_\_ is an example of glidant.
  - a. Microcrystalline cellulose
  - b. Sorbitol
  - c. Avicel
  - d. Aerosil
- 4 Analytical method for characterization of solid crystalline forms
  - a. separating funnel
  - b. Differential scanning calorimetry
  - c. sieving
  - d. sedimentation

5 Water based systems of Aerosols consist of \_\_\_\_\_ phases.

- a. Two
- b. One
- c. Four
- d. Three

6 Tamper resistant packaging provides \_\_\_\_\_

- a. visible evidence if tampered
- b. no visible evidence if tampered
- c. easy tampering
- d. child resistant packaging

7 Distillation is one of the methods of preparation of

- a. Water for Injection
- b. Emulsion
- c. Eye drop
- d. Ear drops

8 Tap density apparatus is used to determine

- a. Partition coefficient
- b. Flow property
- c. organoleptic property
- d. Intrinsic dissolution

9 LAL stands for

- a. Limulus Amebocyte Lysate
- b. Limulus Amebocyte Liquid
- c. Limulus Amebocyte Litre
- d. Limulus Aqueous Liquid

- 10 Which of the following process is used to fill powdered dry solid into soft gelatin capsules
- a. Accogel
  - b. Rotofil
  - c. Rotoweigh
  - d. Rotosort
- 11 Ophthalmic dosage forms administered adjacent to the eye are called?
- a. Topical
  - b. Intraocular
  - c. Periocular
  - d. Interocular
- 12 Which of the following capsule size number has the maximum capacity?
- a. 0
  - b. 1
  - c. 2
  - d. 5
- 13 Ethylene Oxide is most commonly used for
- a. Membrane sterilisation
  - b. Moist heat sterilisation
  - c. Dry heat sterilisation
  - d. Gaseous sterilisation
- 14 Sealing of soft gelatin capsules is achieved at \_\_\_\_\_
- a. 77°C -80°C
  - b. 57°C -60°C
  - c. 37°C -40°C
  - d. 97°C -100°C

- 15 Large volume parenteral is administered by using
- IV route
  - IM route
  - SC route
  - SM route
- 16 Bulk characterization test include
- partition coefficient
  - polymorphism
  - pKa determination
  - Dissolution
- 17 Tablet coating defect related to inadequate spreading of coating solution before drying is called as\_\_\_\_
- Marbling
  - Blistering
  - Orange Peel Effect
  - Lamination
- 18 Oil and water phase are mixed at 70 °C in the manufacturing of
- vanishing cream
  - shampoo
  - toothpaste
  - lipstick
- 19 In a multi station tablet press \_\_\_\_\_ guides the movement of punches.
- Recompression Roller
  - Cam track
  - Capacity Control
  - Feed frame

- 20 Wet gum method is used to manufacture
- syrup
  - suspension
  - aromatic waters
  - emulsion

Q.2 Answer **any two** questions

**20M**

- What are the advantages of granulation? Elaborate on wet granulation technique with examples of equipment used in each step. **10**
- Discuss formulation of parenterals and add a note on importance of isotonicity **10**
- Discuss the compatibility studies and solid state stability studies done during preformulation stage of drug development **10**

Q.3 Answer **any seven** questions

**35 M**

- Give an account of polymers used for film coating of tablets. **5**
- Explain pressure filling method of propellant in Aerosols. **5**
- Write a short note on different types of plastics used as a packaging material for pharmaceuticals. **5**
- Explain pyrogen testing for parenteral preparation **5**
- Write a note on labelling and packaging of Ophthalmic products **5**
- Explain quality control test for soft gelatin capsules **5**
- Explain various studies done to determine solubility profile of a drug **5**
- Write a formula of lipstick. Explain in detail on manufacturing of Lipstick **5**
- Discuss extrusion spheronization process. **5**