

**III. Short answers (Answer seven out of nine questions)**

5x7=35

1. Discuss the following components of aerosol valve assembly. 2.5x2
  - i. Ferrule
  - ii. Dip tube
2. Write key note on following tablet compression machine parts. 2.5x2
  - i. Hopper
  - ii. Feed frame
3. Write brief note on the role of binder and diluent as tableting excipients 2.5x2
4. Highlight the selection criterias of drugs for direct compression and wet granulation method. 2.5x2
5. Discuss the shapes and sizes of hard and soft gelatine capsules. 2.5x2
6. Write briefly on nature of capsule shell. 5
7. Write brief note on flame projection and aerosol valve discharge rate studies. 2.5x2
8. Discuss the significance of polymorphism and and hydrolysis study during preformulation stage of product development. 2.5x2
9. Briefly discuss any two film defects and their corrective measures. 2.5x2

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2023/SEM/ODD/BP-502T/010

**UG Odd Semester (CBCS) Examination, March 2023****PHARMACEUTICAL SCIENCES****(5<sup>th</sup> Semester)****Course No: BP 502T****(Industrial Pharmacy-I)**

Full Marks: 75

Time: 3 Hours

*The figures in the margin indicate full marks for the questions***I (A). Multiple choice questions****1x10=10**

1. Lithography process is used for package print design of \_\_\_\_\_. Product
  - a. Pellet
  - b. Capsule
  - c. Tablet
  - d. Aerosol
2. Loading dose of a drug is given in extragranular part during formulation of sustained release tablet
  - a. True
  - b. False
  - c. Biased
  - d. None.
3. Supra are \_\_\_\_\_ soluble dyes.
  - a. Oil
  - b. Water
  - c. Both
  - d. None

*(Turn Over)*

4. Chlorofluorocarbons and hydrocarbons are types of \_\_\_\_\_.
- Foam
  - Gasket
  - Spring
  - Propellant
5. Type A gelatin is acid treated precursor.
- True
  - False
  - Biased
  - None
6. Type B gelatin has an isoelectric point at pH \_\_\_\_\_.
- 1.2
  - 3.1
  - 4.7
  - 5.1
7. Preformulation study is done for \_\_\_\_\_
- Drug excipient compatibility
  - Characterization of drug
  - Characterization of excipients
  - All of the above.
8. Class 100 air is \_\_\_\_\_ in nature.
- Septic
  - Aseptic
  - Both
  - None
9. LAL reagent is used for performing \_\_\_\_\_
- Clarity test
  - Purity test
  - Leak test
  - Pyrogen test.

10. \_\_\_\_\_ are industrial capsule manufacturing machines.
- Osaka
  - Karg
  - mG2
  - All of the above

**I (B). Objective type (Answer the following in brief)**

2x5=10

- Define dose.
- Define potent drug.
- What differentiates dyes from dyes?
- Name two enteric polymers used in tablet coating.
- Name all four BCS classes of drugs based on solubility and permeability.

**II. Long answers (Answer two out of three questions)**

10x2=20

- Discuss the filling and sealing process of ampoules and vials. 5+5
- Discuss the following evaluation parameters for compressed tablets. 2.5x4
  - Weight variation
  - Friability
  - Disintegration time
  - Hardness
- Highlight the key functions primary, secondary and tertiary packaging materials used for packaging of pharmaceutical finished products. Give suitable examples of each type. 7+3