

[Time: 3 Hours]

[Marks:70]

Please check whether you have got the right question paper.

- N.B:**
1. All questions are **compulsory**.
 2. **Draw neat labelled diagrams wherever required**
 3. **Figures** to the **right** indicate **full marks**.

- Q.1** Answer the following
- a. Classify and comment on the stability of dispersed system. 03
 - b. Enlist different factors affecting skin penetration. 02
 - c. Define suppositories. Enlist the factors affecting rectal absorption. 03
 - d. What is the need for blood products? 02
 - e. Name the quality control tests performed on ligatures. Explain how diameter of ligature is determined 03
 - f. Give pharmaceutical applications of emulsions. 02
- Q.2**
- a. Discuss quality control tests for suspensions 04
- OR**
- Enlist different equipment used in production of emulsions and elaborate on homogenizers 04
- b. Give classification of suppository bases and describe properties of ideal suppository base 04
 - c. Write a note on non absorbable sutures of natural origin. 03
- Q.3**
- a. What are flocculated and deflocculated systems? Explain how change on particle plays a role in creating these systems. 04
 - b. Write a note on Plasmapheresis 04
- OR**
- Albumin preparations. 04
- c. Explain any one quality control test for suppositories 03
- Q.4**
- a. Give an account of raw materials used in formulation of semisolids 04
 - b. Classify emulsifying agents. Explain any one mechanism of droplet stabilization. 04
 - c. Explain the need and desired properties of plasma volume expanders. 03
- OR**
- Give an account of dextran as plasma substitute 03
- Q.5**
- a. Discuss the Dispersion methods for preparation of suspensions. 04
 - b. Elaborate on large scale manufacturing of ointments. 03
 - c. Discuss problems encountered in using theobroma oil as suppository base and measure taken to overcome the same. 04
- OR**
- Describe large scale manufacturing of suppositories. 04
- Q.6**
- a. Explain the process of sterilization of Catgut. 03
 - b. Elaborate on preservation of emulsions. 04
- OR**
- What do you mean by creaming Flocculation and coalescence? How are these Phenomena related to each other? 04
- c. What are penetration enhancers? Classify penetration enhancers according to their mechanism and give examples of each class. 04