

22223

3 Hours / 80 Marks



0805

Seat No.

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- Instructions* –
- (1) All Questions are *Compulsory*.
 - (2) Answer each next main Question on a new page.
 - (3) Illustrate your answers with neat sketches wherever necessary.
 - (4) Figures to the right indicate full marks.
 - (5) Use of Non-programmable Electronic Pocket Calculator is permissible.
 - (6) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. **Attempt any EIGHT of the following:** **16**
- a) Write the importance of dosage form.
 - b) Write the applications of Prodrugs.
 - c) Name the container depending on their utility.
 - d) Explain any one mixing mechanism.
 - e) Write the criteria for selection of filter media.
 - f) Explain digestion process of extraction.
 - g) Differentiate between Dry heat sterilization and Moist heat sterilization
 - h) Name the tablets used to prepare solution.
 - i) Write the approximate capacity of capsule with respect to its number.
 - j) Write the Mantoux tuberculin test.
 - k) Calculate the quantity of dextrose required to prepare 1. Fl.oz of a 10%.
 - l) Define 'containers'. What are the basic materials used in making of container.
2. **Attempt any FOUR of the following:** **12**
- a) Write any six salient features of IVth Edition of I.P.
 - b) Explain construction and working of Silverson mixer homogeniser with a well labelled diagram.
 - c) Calculate the volume of 18%, 15% and 3% cetrimide solution be mixed to get 8% cetrimide solution 200 ml.
 - d) Explain construction and working of cyclone separator with a well labelled diagram.
 - e) Write the principle, construction of Hot air oven with a well labelled diagram.
 - f) Describe the maceration process for concentrated preparation.
3. **Attempt any FOUR of the following:** **12**
- a) Give the classification of dosage form.
 - b) Explain the construction and working with diagram of mill work on the mechanism of cutting.
 - c) Describe the apparatus used for separation of two miscible liquids.
 - d) Illustrate the steps involved in sugar coating.
 - e) Explain the method of preparation of small pox vaccine using animals.
 - f) Explain the factor affecting rate of filtration using Darcy's law.

P.T.O.

**4. Attempt any FOUR of the following:**

- a) Define the following terms:
 - i) Syrup
 - ii) Emulsion
 - iii) Gargles
- b) Explain Aerosol container with a well labelled diagram.
- c) Write the significance of size reduction.
- d) Explain Evaporating still with well labelled diagram.
- e) Define filter aid, write the ideal qualities and any two examples of it.
- f) Write the advantages and list the types of modern unit dose packaging.

5. Attempt any FOUR of the following:

12

- a) Define various grades of powder according to I.P.
- b) Explain construction and working of leaf filter with well labelled diagram.
- c) Write the applications of simple distillation.
- d) Describe the method of filling of soft gelatin capsule.
- e) Explain the factors affecting evaporation.
- f) Explain construction and advantages of fluidised bed dryer.

6. Attempt any FOUR of the following:

16

- a) Find the concentration of sodium chloride required to make 50 ml isotonic solution containing 0.5% ephedrine HCl and 1.5% chlorobutal [Note: The F.P. of 1% w/v solution of ephedrine HCl = -0.165°C and the F.P. of 1% w/v solution of -0.138°C]
- b) Compare the process of maceration for organised drug and unorganised drug and draw a well labelled diagram of Soxhlet apparatus.
- c) Define Aseptic techniques, write the source of contamination and name the methods of sterility testing.
- d) Write the excipients used in Formulation of tablet and explain the parts of single punch tablet machine with a well labelled diagram.
- e) Define immunity and explain the types of immunity.
- f) Explain the following equipments used for mixing (Any one)
 - i) Double cone blender
 - ii) Propeller mixer.