Instructions –

1. Answer any **EIGHT** of the following: 16

   a) Why glycerine is used as a base in throat paints?

   b) Define the term “Pharmacopoeia”.

   c) Why glass containers are not preferred these days.

   d) Write the importance of particle size reduction in pharmacy.

   e) Define the terms ‘size separation’ and ‘sieve’.

   f) Name the different mechanisms which are applicable in mixing of powders.

   g) Name the commonly used filter aids.

   h) What are the different types of distillation?

   i) Write the application of spray dryer.

   j) Explain the term ‘pasteurisation’.

   k) Discuss in brief about B.C.G. vaccine.

   l) Describe in brief ‘churnas’.
2. **Answer any FOUR of the following:**

   a) Differentiate between active immunity and passive immunity.

   b) What are the main objectives of mixing? Give the list of equipments used for mixing of semi-solids.

   c) Differentiate between filtration and clarification. Enlist the various filter media used in pharmacy.

   d) Explain the construction and working of ‘filter candle’.

   e) Write the advantages and disadvantages of tablets.

   f) Explain in detail about maceration with adjustment. How does it differ from simple maceration process?

3. **Answer any FOUR of the following:**

   a) Write the advantages and disadvantages of an evaporating pan.

   b) Define the terms:
      (i) Sublimation
      (ii) Evaporation

   c) Write the applications of simple distillation in pharmacy.

   d) How will you separate two immiscible liquids in pharmacy? Draw a labelled sketch of the apparatus used in the laboratory.

   e) Discuss the theory construction and working of freeze drying apparatus.

   f) Discuss in brief about. Gaseous sterilization.
4. **Answer any FOUR of the following:**

   a) Write in detail about moist heat method of sterilization.

   b) Explain the term ‘aseptic techniques’. What are the various points to be considered while designing an aseptic room?

   c) Discuss in brief about moist granulation method.

   d) Why coating of tablet is done? What are the different methods of coating?

   e) Why ophthalmic ointments are now a days packed in capsules?

   f) What should be the properties of powder to be filled in hard gelatin capsules?

5. **Answer any FOUR of the following:**

   a) Write in brief about ‘Mantous test’.

   b) Explain the term ‘Immunological products’. Discuss any one vaccine in brief.

   c) Discuss in brief about ‘Multiple Maceration’.

   d) Why plastic containers are more commonly used now a days? Write its demerits.

   e) Explain the factors which affect the rate of evaporation of a liquid.

   f) Calculate the quantity of 60% alcohol required to make 500 ml of 20% alcohol.
6. **Answer any FOUR of the following:**

a) Define ‘Homogenisation’. Write the principle of homogenisation. Write in detail about ‘Colloidal Mill’.

b) Draw a well labelled diagram of ‘Soxhlet apparatus’. Mention the various limitations of continuous hot percolation process.

c) Give in brief the history of the ‘Pharmacopoeia of India’.

d) How will you classify different dosage forms?

e) Write the principle, construction, working and uses of the disintegrator.

f) Describe the principle, construction, working and uses of cyclone seperator.