Instructions –

(1) All Questions are Compulsory.

(2) Illustrate your answers with neat sketches wherever necessary.

(3) Figures to the right indicate full marks.

(4) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

1. Answer any TEN of the following: 20

   a) Define drugs and dosage forms with example.
   b) Name various closures used in packaging industry.
   c) Enlist four methods of size reduction.
   d) Define Aristhas and Asavas.
   e) Write any four applications of simple distillation.
   f) List any four advantages of tablets.
   g) Write the main objectives of mixing.
   h) Write any four properties of ideal container.
   i) Define pharmacopoeia. List any four books.
   j) Write the advantages of ball mill.
   k) Write the advantages of glass as a container.
   l) Formaldehyde is not used in gaseous sterilisation. Why?
   m) Write the importance of size reduction.
   n) Write the advantages of hammer mill.
2. **Answer any FOUR of the following:**
   a) Write the official standards of powders.
   b) Write the difference between hard and soft gelatin cap.
   c) List advantages of plastic as packaging material.
   d) Draw a neat diagram of silverson mixer.
   e) Write the history of Indian pharmacopoeia.
   f) Draw a well labelled diagram of aerosol container.

3. **Answer any FOUR of the following:**
   a) Give reasons. Why tablets are coated.
   b) Write the applications of drying.
   c) Write the advantages of dry heat sterilisation.
   d) Write the factors affecting rate of filtration.
   e) Write the applications of viscosity in pharmacy.
   f) What is simple maceration process.

4. **Answer any FOUR of the following:**
   a) What are excipients used in tablet manufacturing?
   b) Write advantages and disadvantages of capsules.
   c) Give the manufacturing defects in tablet manufacturing.
   d) Enlist the evaluation test for tablet. Explain any one.
   e) Define immunity and explain the types of immunity.
   f) Draw a neat diagram of cyclone separator.
5. **Answer any FOUR of the following:**
   
a) Why different dosage forms are needed?
   
b) Why white soft paraffin is not used in the preparation of ointments especially ophthalmic ointments?
   
c) How BCG vaccine is prepared by freeze drying method?
   
d) Explain the construction and working of air separator.
   
e) Why soda lime glass container is not used for the parenterals?
   
f) In what proportion should 20% and 10% HCl is to be mixed to get 15% HCl.

6. **Answer any FOUR of the following:**
   
a) Name the various methods used for sterilisation (any two):
   
   (i) Hand gloves - rubber
   
   (ii) Injectables
   
   (iii) Hospital wards.
   
   b) Explain working and construction of ball mill.
   
   c) What are aseptic technique? What are various sources of contamination?
   
   d) What instructions are to be printed on ophthalmic preparation?
   
   e) Write factors affecting rate of filtration.
   
   f) Write advantages and disadvantages of filter press.