

0805

21718

3 Hours / 80 Marks

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

Marks

1. **Answer any EIGHT of the following:** **16**
- Name some of the modern dosage forms.
 - In which year the various editions of pharmacopoeia of India came out?
 - Define ‘Containers’. What are the basic materials used in making of containers?
 - What are the various factors which affect the size reduction of drugs?
 - Name the various standards of sieves.
 - Give the list of equipments used for mixing of semi-solids.
 - Name the factors which affects the rate of filtration.
 - What is ‘Water for Injection’?
 - What are the two main steps in drying of materials?
 - Give a list of chemicals which are used as bactericide.
 - What does the term “Desiccation” mean?
 - Differentiate between fine powders and granules.

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- 2. Answer any FOUR of the following: 12**
- a) Define 'Viscosity'. Write its applications in pharmacy.
 - b) What are the equipments used for mixing of liquids? Give in detail about 'Propeller Mixer'.
 - c) Explain the construction and working of 'Meta filter'.
 - d) Write the qualities of an ideal filter aids. Give examples of filter aid.
 - e) Why imbibition is necessary before packing of the drug into the percolator?
 - f) Write in detail about modified percolation process.
- 3. Answer any FOUR of the following: 12**
- a) Explain how heat is transferred from the source of the article.
 - b) Explain with the help of a neat sketch one of the evaporators covered under the group of natural circulation evaporators.
 - c) Explain with a neat sketch the working of the apparatus used for distillation on a laboratory scale.
 - d) Explain the theory of fractional distillation.
 - e) Write the applications of drying.
 - f) Write the advantages and disadvantages of fluidised bed dryer.
- 4. Answer any FOUR of the following: 12**
- a) Classify the different methods of sterilization.
 - b) Describe dry heat method of sterilization in detail.
 - c) Name the various manufacturing defects in tablets.
 - d) Describe in brief about dissolution test for tablets.
 - e) Write the approximate capacity in mg of a capsule having number 000, 0, 1, 2, 4 and 5.
 - f) Differentiate between hard gelatin capsule and soft gelatin capsule.

5. Answer any FOUR of the following:**12**

- a) What are the different types of vaccines? Write the method of preparation of small pox vaccine.
- b) Discuss natural immunity in brief.
- c) Differentiate between maceration process for organised drugs and unorganised drugs.
- d) Write the importance of dosage forms.
- e) Write the salient features of third edition of Indian pharmacopoeia.
- f) Calculate the percentage of sodium chloride required to make a 1% solution of hyosine hydrobromide ISO-Isometric with body fluid. The sodium chloride equivalent of 1% hyosine hydrobromide = 0.12.

6. Answer any FOUR of the following:**16**

- a) Give the full form of B.C.G. Discuss in brief about B.C.G. vaccine.
 - b) Explain the different types of excipients used in formulation of tablets with suitable examples of each.
 - c) Discuss in brief freeze drying.
 - d) Define the term 'Closures'. Write in detail about different types of closures commonly used in pharmaceutical industry.
 - e) Give the principle construction and working of hammer mill with a neat diagram.
 - f) Name different methods of size separation. Explain any one with a neat labelled diagram.
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