

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**
- a) Name some of the modern dosage forms.
 - b) In which year the various editions of pharmacopoeia of India came out?
 - c) Define 'Containers'. What are the basic materials used in making of containers?
 - d) What are the various factors which affect the size reduction of drugs?
 - e) Name the various standards of sieves.
 - f) Give the list of equipments used for mixing of semi-solids.
 - g) Name the factors which affects the rate of filtration.
 - h) What is 'Water for Injection'?
 - i) What are the two main steps in drying of materials?
 - j) Give a list of chemicals which are used as bactericide.
 - k) What does the term "Desiccation" mean?
 - l) Differentiate between fine powders and granules.

P.T.O.

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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