

0805

15162

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. Attempt any EIGHT of the following:** **16**
- a) What are advantages of liquid dosage form.
 - b) What are pharmacopoeias and why they are needed.
 - c) Name various mechanisms of size reduction.
 - d) Differentiate between hard gelatin capsule and soft gelatin capsule.
 - e) Define:
 - (i) Capping
 - (ii) Lamination
 - f) What are objectives of mixing.
 - g) Define:
 - (i) Arka
 - (ii) Gutika
 - h) Give any two applications of fluidized bed dryer.

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- i) Give any four precautions to be taken during aseptic work.
- j) What are filter aids. What should be qualities of filter aids.
- k) Name various types of closures.
- l) Classify immunity.

2. Attempt any FOUR of the following: 12

- a) Give the construction and working of silverson mixer homogeniser.
- b) Discuss in brief the stepwise process of percolation used in preparation of tinctures.
- c) Give the principle, construction and working of 'Ball Mill'.
- d) Describe the various factors affecting size reduction.
- e) Explain principle of 'Freeze drying'. Give its advantages.
- f) Describe the construction and working of 'evaporating pan' with neat diagram.

3. Attempt any FOUR of the following: 12

- a) Describe in detail various oral cavity tablets.
- b) Classify different dosage forms with examples.
- c) Draw a well labelled diagram of fluidized bed dryer.
- d) Discuss the salient features of third edition of pharmacopoeia.
- e) Explain factors which affect rate of filtration by Darcy's law.
- f) Define aerosols. Classify aerosols. Give formula of aerosol with example.

4. Attempt any FOUR of following: 12

- a) Discuss in brief gaseous sterilization using ethylene oxide.
- b) Give merits and demerits of rubber as a material for closure.
- c) Explain theory of fractional distillation.
- d) Discuss factors affecting evaporation.

- e) Differentiate between maceration process for organised drugs and maceration for unorganised drugs.
- f) Why there is need for formulation of different dosage form?

5. Attempt any FOUR of the following: 12

- a) What is difference between 'Purified water' and 'Water for injection'? How will you prepare 'Water for injection' in laboratory.
- b) Describe construction and working of equipment used for moist heat sterilization.
- c) In what proportion 25%, 18%, 12% alcohol should be mixed to get 15% alcohol.
- d) What various 'Novel drug delivery systems' - explain implants.
- e) Describe construction and working of double cone blender.
- f) Give the method of preparation of "Small pox vaccine" using egg.

6. Attempt any FOUR of the following: 16

- a) How will you prepare 4 ounces of solution so that 1 tablespoonful to 1 quart make 1 in 500 ml solution.
 - b) Discuss in brief disintegration test for uncoated tablet.
 - c) What are toxoids? Discuss general methods for preparation of toxoids.
 - d) Define:
 - (i) Sterilization
 - (ii) DisinfectionClassify different methods of sterilization.
 - e) What are advantages of multiple maceration? Give formula for calculating volume required for double and triple maceration.
 - f) Explain principle, construction and working of cyclone separator.
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