

# 0805

**11920**

**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) Define:
    - (i) Sieve number
    - (ii) Pharmaceutical aid
  - b) Define and classify Immunity
  - c) Give disadvantages of glass.
  - d) Mention precautions to be taken while using eye drops.
  - e) Give reason why Glycerine is added in throat paints?
  - f) Mention different mechanisms used for size reduction.
  - g) Draw a labelled diagram of filter candle.
  - h) What are Galanicals?
  - i) Name any two polymers used for film and enteric coating.
  - j) State difference between syrup and elixir.
  - k) List different excipients used in processing of capsule.

P.T.O.

- 1) Give metric equivalents for:
- (i) One pint
  - (ii) One fluid drachm
  - (iii) One teaspoonful
  - (iv) 15 grains

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

- a) Define sterilization. Classify different methods used for sterilization.
- b) Give principle, working and use of fluidized bed drier.
- c) Define capsule. Differentiate between hard and soft gelatin capsules.
- d) Mention advantages and disadvantages of plastic containers.
- e) Give salient features of III<sup>RD</sup> edition of I.P.
- f) How many tablets, each containing 8.75 gr of mercuric chloride will be required to make one quart of a 0.05% solution?

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

- a) Define and classify different types of tablets.
- b) Give principle working and use of autoclave.
- c) Based on Darcy's law, discuss different factors which affect rate of filtration.
- d) Define and discuss different types of containers.
- e) Draw a neat labelled diagram showing steam distillation at Laboratory scale.
- f) How any ml of 80%, 60%, and 50% of alcohol to be mixed to obtain 100 ml of 70% alcohol?

- 4. Answer any FOUR of the following:** **12**
- a) Define Drug. Classify different types of dosage forms with examples.
  - b) Discuss working of freeze dryer.
  - c) Explain why there is need of different dosage form.
  - d) Give advantages, disadvantages and applications of sterilization by ionising radiation.
  - e) Mention different methods used for size separation. Explain any one.
  - f) Write in brief about special applications of capsules.
- 5. Answer any FOUR of the following:** **12**
- a) Define Pharmacopoeia. Discuss history of Indian Pharmacopoeia.
  - b) Explain working of fluid energy mill with a neat diagram.
  - c) Define evaporation explain any four factors affecting rate of evaporation.
  - d) Describe various stages of sugar coating.
  - e) What is aseptic technique? State it's importance.
  - f) Mention different types of closures. Comment on materials used for making closures.

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

- a) Discuss different official grades of powders according to I. P 2010
  - b) Classify different methods used for extraction. Draw a labelled diagram of Soxhlet extractor.
  - c) Mention all Q.C tests to be performed on tablets. Explain any one in detail.
  - d) Define the term vaccine. Discuss the method of preparation of small pox vaccine using animals.
  - e) What are NDDS? Differentiate between sustained and controlled release dosage forms.
  - f) Suggest an instrument for following operations.
    - (i) Drying of thermolabile drug
    - (ii) Film coating of tablet
    - (iii) Sterilization of powder
    - (iv) Preparation of WFI I.P.
    - (v) Size reduction of Brittle drug
    - (vi) Mixing of ointment.
    - (vii) Classification of syrups
    - (viii) Preparation of emulsion.
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