

22614

21222

3 Hours / 70 Marks

Seat No.

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15 minutes extra for each hour

- 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) Assume suitable data, if necessary.
  - (6) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

**Marks**

**1. Answer any FIVE of the following :**

**10**

- (a) Define Galenical process.
- (b) Define filtration.
- (c) Define Pharmacopeia.
- (d) List any two uses of Active Pharmaceutical Ingredients.
- (e) Write definition of Homogenization.
- (f) Enlist different equipments used for sterilization (Any four).
- (g) Enlist different types of drugs.

**2. Answer any THREE of the following :**

**12**

- (a) Describe galenical process.
- (b) Explain any two types of dosage form.
- (c) Explain working of decanter with neat figure.
- (d) Describe Emulsification process.

- 3. Answer any THREE of the following : 12**
- (a) Draw neat sketch of Silverson Type Homogenizer.
  - (b) Explain the process of formation of Rantadine with flow diagram.
  - (c) Describe the hot extraction process.
  - (d) Explain the role of Active Pharmaceutical Ingredients in pharmaceutical products.
- 4. Answer any THREE of the following : 12**
- (a) Describe good manufacturing practices.
  - (b) Classify the different filter media and filter aid used for filtration process.
  - (c) State the factors influencing the rate of filtration.
  - (d) Differentiate between sterilization and disinfection.
  - (e) Explain the process of sterilization using radiation.
- 5. Answer any TWO of the following : 12**
- (a) Write any six applications of Emulsification and Homogenization processes.
  - (b) Write process description of Metformine with neat process flow diagram.
  - (c) Explain with neat figure the construction and working of mixer settler.
- 6. Answer any TWO of the following : 12**
- (a) Explain process description of Amoxicillin trihydrate and reaction involved in the process.
  - (b) Explain construction and working of Mono stage centrifugal extractor with principle.
  - (c) Describe HEPA (High Efficiency Particulate Air) filters with neat diagram.
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