

QUESTION BANK

PHARMACEUTICS-II **(Unit Operation)**



B.PHARM

IIIrd SEMESTER, 2nd YEAR

SHAMBHUNATH INSTITUTE OF PHARMACY
JHALWA, ALLAHABAD

SHAMBHUNATH INSTITUTE OF PHARMACY ALLAHABAD

Question bank of Second Year (3rd Semester)

Subject: Pharmaceutics–II(Unit-Operation)

Subject Code:..... BOP-231

UNIT -I

SECTION-A

Note- each question carries 2 mark

- I. Define Unit operation. Give the significance of studying unit operation.
- II. Define Unit process Give the significance of Unit process.
- III. What is the importance of unit operations in the pharmaceutical industry?
- IV. Define the terms Stoichiometry and mole volume
- V. Write a note on rate process
- VI. Explain the term steady and unsteady state
- VII. What do you understand by equilibrium state?
- VIII. Define the terms mole and mole fraction

SECTION-B

Note- each question carries 10 mark

- a) Explain about open loop control system.
- b) Explain about closed loop control system.
- c) Write a note on Gas law?
- d) Write a note on material balance and energy balance
- e) Explain fundamental and derived units?.
- f) What are reactors? Give the classification of reactors.
- g) Discuss about pressure measurement devices.

SECTION-C

Note- each question carries 15 mark

- a) Write a note on
 - I. Temperature measurement devices.
 - II. Flow measurement devices.
- b) What is automatic process control? What are its advantages?
- c) What factor must be taken into consideration while selecting a reactor for chemical reactions?
- d) Write a note on feed forward control and feedback control system.

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UNIT –II

SECTION-A

Note- each question carries 2 mark

- I. Define the terms filtration with example.
- II. Define the terms filter media with example.
- III. Define the terms filter aid with example.
- IV. What is the centrifugation?
- V. What is the centrifugal effect?

1. SECTION-B

Note- each question carries 10 mark

- a) Write the principle and working of rotary drum filter.
- b) Write a note on frame and plate filter press.
- c) Explain the principle & working of conical disc centrifuge.
- d) Briefly discuss factors affecting filtration
- e) Write a note on purified water
- f) Explain about washing and cleaning standardization in pharmaceutical industry

SECTION-C

Note- each question carries 15 mark

- a) Explain the principal and working of a plate & frame filter press.
- b) Explain about theory of filtration.
- c) Explain about theory of centrifugation
- d) Write short note on-
 - I. Meta filter
 - II. Leaf filter

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UNIT-III

SECTION-A

Note- each question carries 2 mark

- I. Define the terms equilibrium moisture content
- II. Define the terms free moisture content
- III. Define the terms critical moisture content
- IV. What is the % loss on drying?
- V. What is the % moisture content?
- VI. Define the terms bound water and unbound water
- VII. Give the applications of drying in pharmacy
- VIII. What is the rate of drying

SECTION-B

Note- each question carries 10 mark

- a) Discuss the theory of drying.
- b) What are the factors that affect rate of drying?
- c) Explain the principle and working of the fluidized bed dryer.
- d) Explain the principle and working of the drum dryer.
- e) Write a note on tray dryer.
- f) Write a note on spray dryer.
- g) Discuss the disadvantage and applications of freeze drying.
- h) Discuss the factors which used to be considered for selection of drying equipment.

SECTION-C

Note- each question carries 15 mark

- a) Explain the principle, working of the
 - i. Freeze dryer
 - ii. Fluidized bed dryer
- b) Discuss about the rate of drying curve.
- c) Discuss the factors which used to be considered for selection of drying equipment.

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UNIT-IV

SECTION-A

Note- each question carries 2 mark

- I. Define the terms Enthalpy.
- II. Define the terms adiabatic saturation temperature.
- III. Define the terms Dew point.
- IV. Define the terms Relative humidity.
- V. Define the terms dry bulb temperature.
- VI. Define the terms humid heat.
- VII. Define the terms humidity.
- VIII. What is the refrigerant?
- IX. What is the psychrometric chart?

SECTION-B

Note- each question carries 10 mark

- a) Describe the methods employed for dehumidification of air.
- b) Write a note on air conditioning system
- c) What is the utilization of psychrometric chart?
- d) Discuss about method to determine the humidity.
- e) Write a short note on humidification and dehumidification
- f) Discuss about refrigerants

SECTION-C

Note- each question carries 15 mark

- a) Discuss about psychrometric charts and its utility.
- b) Write a note on air conditioning system
- c) Explain about refrigeration cycle

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UNIT-V **SECTION-A**

Note- each question carries 2 mark

- I. What is the composition of cost iron
- II. What is advantage of stainless steel
- III. What is industrial hazards
- IV. What is industrial dermatitis
- V. What is the corrosion?
- VI. What is advantage of aluminum use in pharmaceutical industry
- VII. What is advantage of glass use in pharmaceutical industry?

SECTION-B

Note- each question carries 10 mark

- a) Write a note on stainless steel.
- b) Discuss about composition use and advantage of cost iron in pharmaceutical industry
- c) Write a note on application of plastic in pharmaceutical industry
- d) Write a note on application of glass in pharmaceutical industry
- e) Write a note on electrical hazards.
- f) Write a note on Industrial dermatitis

1. SECTION-C

Note- each question carries 15 mark

- a) Explain about corrosion and its prevention
- b) Discuss the factors to be considered in the selection of materials for pharmaceutical plant construction.
- c) Discuss about industrial hazards and its preventions in pharmaceutical industry.