

III/IV B.PHARMACY (Regular) DEGREE EXAMINATIONS, APRIL-2019

6th Semester

B.PHARMACY

PHARMACEUTICAL ENGINEERING-II

Time: Three Hours

Maximum marks:70

SECTION-A

Answer any FOUR Questions

4X10=40M

1. Write the classification of heat transfer equipment and explain the working of two pass floating head heater. Mention its advantages?
Explain the principle and working of freeze dryer. Mention its advantages and give two examples.
- Write the principle of fractional distillation and explain the working of fractionating column and its applications.
- Discuss the significance of Mier' theory of crystallization and mention its limitations. Write about the factors influencing the selection of crystallizers.
5. Write about the factors influencing the selection of filtration equipment citing suitable examples. Write about the working of filtration equipment suitable for filtration of thick slurry.
- Mention the differences between horizontal and vertical tube evaporators. Explain the working of vertical tube evaporator.

SECTION-B

Answer any TEN Questions

10X3=30M

- What are the advantages and disadvantages of fluidized bed dryer?
- What are the differences between evaporation and distillation?
9. Write about entrainment separators.
10. Define Fourier's law and mention its significance.
- What for filter aids are used? Give two examples of filter aids.

10. Mention the advantages of Swenson-Walker crystallizer.
13. Define Stefan-Boltzman law and mention its significance.
14. What are the applications of molecular distillation?
10. What are the advantages of counter current extraction?
10. Write the principle of steam distillation
10. Write the principle of vacuum crystallizer.
10. Explain the significance of equilibrium moisture content.



III/IV B.PHARMACY DEGREE EXAMINATIONS, APRIL-2017

6th Semester

B.PHARMACY

PHARMACEUTICAL ENGINEERING-II

Time: Three Hours

Maximum marks:70

SECTION-A

Answer any FOUR questions. (4 x 10=40 M)

1. Explain the principle of distillation with the help of boiling point curves. Write the significance of distillation in pharmacy.
2. Describe the construction and working of a falling film evaporator and compare its working with climbing film evaporator. ✓
3. Give the classification of crystallizers and explain the working of a continuous crystallizer with suitable example.
4. Write the principle and working of Podbielniak enactor with a neat labeled diagram. ✓
Mention its applications. ✓
5. Classify driers. Explain construction, working and applications of rotary drier. ✓
6. Explain basic mechanisms of heat flow. Derive Fourier's law. ✓

SECTION-B

Answer any TEN questions. (10 x 3=30 M)

7. What are finned tubes? Write their importance in heat transfer. ✓
8. Name the methods of feeding the multiple effect evaporator with advantages. ✓
9. What modifications are necessary for steam jacketed kettle for handling highly viscous liquids. ✓
10. Write Rayleighs' equation and mention its significance.
11. Write the principle of steam distillation? Mention its pharmaceutical applications. ✓
12. What are the filter aids? Give two examples. ✓
13. Write about Kozeny's equation. ✓
14. Mention the limitations of Mier's theory. ✓
15. Write about prevention of caking of crystals. ✓
16. Suggest suitable dryer for vaccines with valid reason. ✓
17. Mention the differences between heat exchangers and interchangers. ✓
18. Materials prone for oxidation can be dried in vaccum compartment dryer. Comment.

III/IV B.PHARMACY DEGREE EXAMINATIONS, NOVEMBER-2016

(6th Semester)

B.PHARMACY

PHARMACEUTICAL ENGINEERING-II

Time: Three Hours

Maximum marks:70

SECTION-A

Answer any FOUR questions. (4 x 10=40 M)

1. Write the principle of fractional distillation? Discuss about columns used in fractional distillation citing their relative advantages.
2. Explain the working of a multiple effect evaporator. Explain the calculation of its capacity.
3. Mention the advantages of spray drying and explain the working of spray dryer.
4. Explain Mier's theory of crystallization. What are its limitations? Explain the working of vacuum crystallizer.
5. Enumerate the factors influencing the selections of filtration equipment citing suitable examples. Name the filtration equipment suitable for filtration of syrups and explain its working.
6. Give the classification of heat transfer equipment and mention the differences between heat exchangers and interchangers. Explain the working of heat interchanger.

SECTION-B

Answer any TEN questions. (10 x 3=30 M)

7. Write the principle of climbing film evaporator.
8. Write the principle of centrifugation.
9. Write the significance of equilibrium moisture content.
10. Define Stefan-Boltzman law and mention its significance.
11. Write about over all heat transfer coefficient.
12. Write the advantages of counter current extraction.
13. Write about entrainment separators.
14. Write the advantages of Swenson-Walker crystallizer.
15. Name the dryer suitable for slurries with valid reason.
16. Write about azeotropic distillation with suitable example.
17. Mention the advantages and disadvantages of fluidized bed dryer?
18. What are the applications of molecular distillation?

III/IV B.PHARMACY (Regular) DEGREE EXAMINATIONS, MAY-2016**Sixth Semester****PHARMACEUTICAL ENGINEERING-II****Time: Three Hours****Maximum marks:70****SECTION-A****Answer any FOUR questions. (4 x 10=40 M)**

1. Explain the theory and process of steam distillation. Mention its advantages and two examples for the process.
2. Explain the working of multiple effect evaporators and how its capacity is calculated.
3. Explain the theory of filtration. Write about filter aids.
4. With the help of a neat diagram explain the regions of a drying rate curve highlighting the significance of each region.
5. Define Fourier's law and derive an expression for the flow of heat across a wall constructed with series of layers.
6. Explain the working of Krystal crystallizer with the help of a neat diagram.

SECTION-B**Answer any TEN questions. (10 x 3=30 M)**

7. Mention the advantages and disadvantages of climbing film evaporator.
8. Write about caking of crystals and its prevention.
9. Explain the working of meta filter.
10. Briefly write about finned tubes.
11. Suggest suitable filter for the filtration of viscous material.
12. What are azeotropes and give suitable examples.
13. Define Stefan-Boltzman law.
14. Write about the significance of molecular distillation.
15. Suggest a suitable dryer for the drying of thermolabile material with valid reason.
16. Write the principle of working of a fractionating column.
17. Draw the flow diagram of oil seed extraction equipment.
18. Write the principle of spray drying and its advantages.