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Roll No

PY-401 (GS)**B.Pharmacy IV Semester**

Examination, December 2017

Grading System (GS)**Pharmaceutics - IV****Pharmaceutical Engineering - II**

Time : Three Hours

Maximum Marks : 70

- Note:** i) Attempt any five questions.
ii) All questions carry equal marks.

1. a) Discuss the factors influencing the size reduction.
b) Discuss the construction, working, merits and demerits of a grinder based on combined attrition and impact principle.
2. a) Differentiate between drying, evaporation and distillation.
b) Classify the evaporators and illustrate the principle, construction and working of multiple effect evaporators. Explain its capacity and economy.
3. a) State Raoult's law and Henry's law.
b) Discuss the construction of rectifying column.
c) Describe McCabe Thiele method for calculation of theoretical plates.

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4. a) What are the 'equilibrium moisture content' and 'critical moisture content'? Discuss their importance in the process of drying.
b) Explain with the help of neat diagram the construction, working, merits and demerits of spray dryer.
5. a) Briefly discuss the theory of filtration with reference to Kozeny equation and define following terms.
i) Filter aids
ii) Filter media
b) Describe the construction and working of plate and frame type filter press.
6. a) Discuss the various factors affecting the strength of the tablet.
b) Explain the Physics of tablet compression.
7. a) What is mixing? What are various types of mixtures? Give suitable examples for each.
b) Discuss the mechanism of solid-solid mixing.
c) Describe the construction and working of the suitable mixers used for mixing highly viscous liquids.
8. Write short notes on four.
a) Nucleation and crystal growth
b) Rotary filters
c) Freeze drying
d) Podbielniak extractor
e) Film evaporators

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