F-1/2051 5924/MJ

B Pharm Semester-II

PHARMACEUTICS-II [Pharmaceutical Unit Operation]-2001

Time: 3 hours (May, 2017) **Max Marks: 70**

Instructions: 1. Attempt any three question each from section A and B
2 Section C is compulsary

SECTION A 7X3=21

Q1 Explain mechanisms and laws governing size reduction
Q2 Enumerate the different materials for pharmaceutical plant construction.
Q3 Explain construction, working, principle, merits and demerits of hammer mill.
Q4 Highlight Flow control equipments

SECTION B 7X3=21

Q5 Explain Fourier's law of heat transfer. How heat transferred by convection occurs.
Q6 a. Explain multiple effect evaporator.
b. Explain principle of steam distillation
Q7 Give principle and working of Spray drier
Q8 Enumerate construction, working, principle, merits and demerits of plate and frame filter.

SECTION A (COMPULSORY) 14X2=28

Q9. Define
a. Unit operation
b. viscosity
c. Orifice meter
d. Bag filter
e. EMC
Comment on the following
f. celloluse powder is used as filter aid
g. Give advantages of silverson emulsifier
h.A good heat insulator has high thermal conductivity
Distinguish between
i. Distillation and evaporation
j. Edge runner mill and end runner mill
k. What is venturimeter.
l. what are the precautions taken while size reducing through ball mill?
m. How sieve shaker is used for size separation using sieve shaker
n. Enumerate membrane filters

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