

16331(J) June-16

B. Pharmacy (Ayurveda) 6th Semester Examination

Pharmaceutical Engineering (NS)

BPA-621

Time : 3 Hours

Max. Marks : 70

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

- Note :** (i) Question-1 is Compulsory to answer.
(ii) Attempt any Five questions out of remaining Six.
(iii) Figure to the right indicates marks.

1. Answer any TEN out of given TWELVE questions:
(Compulsory Question)

- (i) Enlist the mill working on the Impact and Attrition principle.
- (ii) Fluid energy mill is better equipment for size reduction of thermo-labile substances: Comment on statement.
- (iii) List out the unit operation used for separation of insoluble solids from liquid.
- (iv) Optimum speed required for size reduction in ball mill: Comment on statement.
- (v) Enlist factors affecting choice of extraction process.
- (vi) What is the difference between Leaching and Extraction?
- (vii) Give the principle of steam distillation.
- (viii) Raoult's law and its limitation.
- (ix) Define magma and mother liquor.

[P.T.O.]

- (x) Write the different steps of crystallization.
- (xi) Enlist the methods to achieve Supersaturation.
- (xii) Enlist remedies for prevention of crystals caking.
(10×2=20)

2. Answer following questions.

- (i) Define "Pulverizing". Explain in detail about mill working for wet grinding. (10)

3. Answer following questions.

- (i) Explain fluid energy mill.
- (ii) Explain the specification and standards of sieve.
(2×5=10)

4. Answer following questions.

- (i) Write a note on flash distillation.
- (ii) Name the different types of distillation process and explain simple distillation method. (2×5=10)

5. Answer following questions.

- (i) Explain the theory of extraction for crude vegetable drugs.
- (ii) Write a note on Circulating Magma Crystallizer.
(2×5=10)

6. Answer following questions.

- (i) Discuss about the various parts of typical evaporator.
- (ii) Write a note on Silverson emulsifier. (2×5=10)

7. Answer following questions.

- (i) Differentiate Single effect & Multiple Effect Evaporation. Explain with example. (10)