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J-MPH-103-T Seat No. _____

M. Pharm. (Sem. I) Examination

January – 2020

MPH-103 T : Modern Pharmaceutics

Time : **3** Hours] [Total Marks : **75**

Instruction : Figures to the right indicate marks.

1 Answer the following questions : **10×2=20**

a) Define QSR.

b) Define independent variables and dependent variables with examples.

c) Explain similarity and dissimilarity factors.

d) What do you mean by Response surface methodology ?

e) What is the difference between Student T test and Anova test ?

f) Define Self Inspection and Quality Audit.

g) What do you mean by Validation master plan ?

h) What is the importance of chi square test ?

i) Explain linear and quadratic equations with examples.

j) Comment: Solubility is increased if there is increase in the surface area.

2 Answer any two out of the following. **2×10=20**

a) Explain in detail about SMEDDS along with its formulation, characteristics and evaluation parameters.

b) Write a brief note on process of compression along with its effect on various properties of tablets.

c) Describe various optimization techniques. Explain in detail factorial design approach.

3 Answer any seven out of the following : **7×5=35**

a) Define solubility; Explain factors affecting solubility and methodology for determining the solubility.

b) Define Process validation with its objectives and explain in detail about types of Process validation.

c) Define sales forecast and explain in detail about sales forecasting process.

d) Explain the Procedure for planning the production.

e) Write a brief note on Inventory Control.

f) Define Industry Relation, give objectives of it and explain in detail about various approaches for Industry Relation.

g) Enumerates the various methods for drug excipient Interaction Study and explain any two in detail.

h) Explain the various formulation considerations for manufacturing of large volume parenteral along with its evaluation parameters.

i) Define dispersed system and explain in detail about theory of dispersion.
