

**M. PHARM**  
**(SEM-I) THEORY EXAMINATION 2019-20**  
**MODERN PHARMACEUTICS**

**Time: 3 Hours**

**Total Marks: 75**

**Note: 1.** Attempt all Sections. If require any missing data; then choose suitably.

**SECTION A**

- 1. Attempt all questions in brief. 10 x 2 = 20**
- a. Write a short note on tools of cost control.
  - b. What is drug-excipient interaction study?
  - c. Discuss the pharmacokinetic parameters.
  - d. Write a note on effect of friction on compression.
  - e. Write the advantages of production control.
  - f. Discuss the types of validation in brief.
  - g. Enlist the types of experimental design.
  - h. What is the meaning of “current” according to GMP regulation?
  - i. What is chi square test? Write the important characteristics of a chi-square test.
  - j. Define Heckel plot.

**SECTION B**

- 2. Attempt any two parts of the following: 2 x 10 = 20**
- a. What is consolidation? Discuss consolidation process and consolidation mechanism?
  - b. Discuss the various theories of emulsification?
  - c. Define inventory and discuss the inventory management and control.

**SECTION C**

- 3. Attempt any five parts of the following: 7 x 5 = 35**
- a. Write the content of Master formula as per WHO.
  - b. Write a note on DQ,IQ, and PQ.
  - c. Discuss difference factor ( $f_1$ ) and similarity factor ( $f_2$ ).
  - d. Write a note on statistical design.
  - e. Give a brief description of physics of tablet compression.
  - f. Write the components of validation protocol.
  - g. Discuss the factors affecting dissolution.