



PAPER ID-411508

Roll No:

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

MPHARM
(SEM I) THEORY EXAMINATION 2023-24
MODERN PHARMACEUTICS

TIME: 3 HRS**M.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.	Give the importance of pre-formulation studies.
b.	Enlist the spectroscopic techniques to determine drug-excipient interaction.
c.	Differentiate between validation and calibration.
d.	State key elements of validation master plan (VMP).
e.	Describe inventory management.
f.	Elaborate the concept of Total Quality Management (TQM).
g.	Define the term-Tablet Compaction.
h.	Differentiate between frictional and distribution forces.
i.	Name various pharmacokinetic parameters affecting consolidation process.
j.	Define similarity factors-f1 and f2.

SECTION B

2. Attempt any two parts of the following:

2 x 10 = 20

a.	Define pharmaceutical validation. Discuss its scope, merits and general guidelines for the validation and calibration of pharma equipment.
b.	Explain the objectives of cGMP. Write the GMP requirements and layout of buildings, services, equipment, and maintenance for solid dosage forms.
c.	Illustrate the energy and force involvement in compression of tablets. Also describe the effect of particle size and moisture content on tablet compression.

SECTION C

3. Attempt any five parts of the following:

5 x 7 = 35

a.	Discuss the preparation and evaluation of SMEDDS.
b.	Define optimization. Write a note on factorial design for optimization of formulation.
c.	Explain the terms DQ, IQ, OQ and PQ and their importance in validation.
d.	Discuss in detail about production management.
e.	Explain the phases of compaction profile with a suitable example.
f.	Draw the Heckel plots for determination of Porosity compression of tablets.
g.	Write a note on significance of Chi square test and students t test.