

Your Roll No.

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School of Pharmaceutical Education and Research
M. Pharm. I Semester Examination (2023-24)

Subject: **Product Development & Technology Transfer**
 Paper Code: **MQA 104 T**

Date: **15-03-24**

Maximum Marks: **75**
 Time: **Three hours**

(Write your Roll No. on the top immediately on receipt of this question paper)

Note: This paper has two Sections; A and B.
 Attempt all the two sections.

Section A: Answer all the questions. **Section B:** Answer any 4 out of 6 questions

Abbreviations Used: CO-Course Outcome, PO- Program Outcome, BTL- Bloom Taxonomy Level: BT level 1- Remember; BT level 2- Understand; BT level 3- Apply; BT level 4- Analyze; BT level 5- Evaluate; BT level 6- Create.

SECTION-A

Answer the following in brief (Attempt all questions)

5x3= 15 Marks

Q. No 1	Question	BTL	CO	PO
(a)	Write in short about Bulk active chemical post approval changes	2	1	4
(b)	Differentiate between thermosetting and thermoplastic type of plastics.	4	5	6
(c)	Write a note of closures for Pharmaceutical Packaging	2	5	6
(d)	What do you understand by Lead optimization?	3	3	7
(e)	What are the components of a bubble cap?	1	5	6

SECTION B

Long type Questions (Attempt any 4 out of 6)

4x15= 60 Marks

	Question	BTL	CO	PO
Q. No 2	Discuss the preformulation protocol for solid dosage forms	3	2	2,8
Q. No 3	Discuss in detail issues facing modern drug packaging	3	5	6
Q. No 4	Elaborate on the drug development phases.	4	1	4
Q. No 5	Explain the various stages of clinical trials in India	3	1	4
Q. No 6	Discuss the large scale manufacturing techniques of solid dosage forms.	2	2	1
Q. No 7	Explain in detail various qualitative models of technology transfer.	3	4	2