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**BPHARM**  
**(SEM VIII) THEORY EXAMINATION 2024-25**  
**PHARMACEUTICAL PRODUCT DEVELOPMENT**

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 examples of nonionic surfactants.
b.	Define optimization.
c.	Define suspending agents with examples.
d.	Define emulsifying agents with examples.
e.	Enlist some coat materials.
f.	Write the applications of factorial design.
g.	Write a short note on semisolid excipients.
h.	Write a note on tablet packaging materials.
i.	Define powder packaging.
j.	Define directly compressible vehicles.

**SECTION B**

2. Attempt any *two* parts of the following:

2 x 10 = 20

a.	Discuss the objectives of preformulation studies.
b.	Discuss the advancements in tablet excipients.
c.	Write a note on quality control testing of packaging materials.

**SECTION C**

3. Attempt any *five* parts of the following:

7 x 5 = 35

a.	Describe the manufacturing and quality control testing of tablet dosage form.
b.	Enlist the excipients used in parenteral dosage forms.
c.	Write the optimization techniques used in pharmaceutical product development.
d.	Write the role of QbD in pharmaceutical product development.
e.	Write a note on semisolid excipients.
f.	Describe the role of cyclodextrin in product development.
g.	Write a note on new drug delivery system.