



**Shree Gurudatta Shikshan Sansthas Loknete Dr. J. D. Pawar  
College of Pharmacy Manur Tal. Kalwan Dist Nashik Maharashtra**

Bachelor of Pharmacy [2025-26]

**Second Sessional Theory Exam**

**Subject :** [ BP701T ] Instrumental Methods of Analysis TH - Theory **Faculty :** Pankaj Aher

**Year :** Final Year - Sem - 7 **Marks :** 30 **Date :** 4 November, 2025 **Duration :** 90 Minutes

All the questions are compulsory.

Figures to the right indicate full marks.

Question	Marks	Course Outcome	Blooms Level
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Q. 1 Attempt any five of the following.

Classify ion exchange resins with examples.	2.00	CO4	Remember
b) Discuss system suitability parameters for chromatography.	2.00	CO1	Understand
c) Explain principle of Gas-Liquid chromatography.	2.00	CO1,CO3	Remember
d) Add a note on Photodiode (PDA) detector used in HPLC.	2.00	CO2	Apply
e) Write applications of gel chromatography.	2.00	CO5	Create
f) Give ideal properties of ion exchange resins.	2.00	CO2,CO5	Create
g) Write in short columns used in gas chromatography.	2.00	CO1,CO3	Analyze

Q. 2 Attempt any one of the following.

a) Discuss instrumentation of high performance liquid chromatography.	10.00	CO1,CO2	Understand
b) Explain principle and instrumentation of gel chromatography.	10.00	CO4,CO5	Remember

Q.3 Attempt any two of the following.

a) Discuss rate theory and plate theory.	5.00	CO2	Evaluate
b) Explain constant flow rate and constant pressure pumps used in HPLC.	5.00	CO3	Analyze
c) Write factors affecting on ion exchange resins.	5.00	CO5	Create





Q. 3. Attempt any two

- 3.1 What is patient counselling (5.00 Marks)
- 3.2 Give information about educational training program in the hospitals. (5.00 Marks)
- 3.3 Explain OTC sale. (5.00 Marks)

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- 3.2 Give information about educational training program in the hospitals. (5.00 Marks)
- 3.1 What is patient counselling (5.00 Marks)

**Second Sessional Theory Examination Nov. 2025**

Class: Final Year B. Pharmacy (2019 Pattern) Sem: VII  
Course: Novel Drug Delivery System  
Date: 07/11/2025  
Course Code: BP 704T  
Day: Friday  
Time: 1 Hr 30 Min  
Max Marks: 30

Instruction: 1) All questions are compulsory.

2) Figures to right indicate full marks.

3) Draw neat and labeled diagrams wherever necessary.

Q. 1) Answer the following question (Answer 05 out of 07) 05×02=10 Marks

a. What are the advantages and disadvantages of a mucoadhesive drug delivery system?

b. List different routes for mucosal drug delivery.

c. Name a drug characteristic that makes it unsuitable for a transdermal delivery system.

d. What is the primary goal of GRDDS

e. What are the advantages of using the nasal route for a drug delivery system?

f. What is the primary purpose of a targeted drug delivery system?

g. What are the three primary types of inhalation systems used for aerosol drug delivery?

Q. 2) Answer the following question (Answer 01 out of 02) 01×10=10 Marks

a. Discuss the different formulation approaches used in the design of a transdermal drug

delivery system.

b. Explain in detail various approaches for a gastroretentive drug delivery system.

Q. 3) Answer the following question (Answer 02 out of 03) 02×05=10 Marks

a. Explain different components of the transdermal system

b. What are the key factors that affect the gastric retention time of GRDDS?

c. Write a short note on the component of the Aerosol valve assembly.