

BIRLA INSTITUTE OF TECHNOLOGY & SCIENCE, PILANI

Department of Pharmacy (Pilani Campus)

Mid Semester Examination

First Semester 2023-2024 (CLOSED BOOK)

PHA G534 – Separation and Structure Elucidation Techniques

Date: 9/10/2023

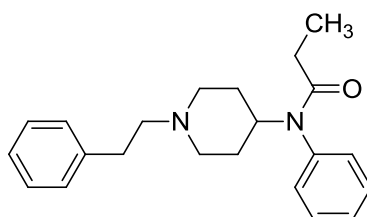
Duration: 90 Minutes

Max. Marks: 30

Instructions:

1. All questions are compulsory
 2. Figures to right in square bracket indicates maximum marks
 3. Write precise answers and use diagram wherever necessary
 4. Marks will be given for correct answers (including spelling) with proper justification
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1. Answer the following questions in brief [5]
 - i. What is purging done in HPLC
 - ii. Are volatile type of buffers preferred in HPLC based method development . Justify your statement.
 - iii. What is split and split-less system in GC-MS?
 - iv. Name any 4 parameters that you should know before starting HPLC method development.
 - v. What are ghost peaks?
2. A scientist want to evaluate volatile oil. Why will he choose GC-MS over LC-MS? How he will perform optimization of GC-MS method for separation of the constituents of the sample [8]
3. Discuss in brief the tuning of mass spectrometer for analysis of the following analyte [5]



4. What are the step involved in validation of developed HPLC method [7]
5. What do you understand by triple quadrupole. Explain its mechanism of separation and detection of various ions. [5]
