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Total No. of Pages : 02

Total No. of Questions : 08

M.Pharmacy (Pharmacognosy) (2017 & Onwards) (Sem.-1)
MODERN PHARMACEUTICAL ANALYTICAL TECHNIQUES
Subject Code : MPG-101T
M.Code : 74669

Time : 2 Hrs.

Max. Marks : 37.5

INSTRUCTIONS TO CANDIDATES :

1. Attempt any FIVE question(s), each question carries 7.5 marks.

- Q1) a) Describe various detectors used in IR spectroscopy.
b) Describe Spectrophotometer.
- Q2) a) Give specific applications of AAS and FES.
b) Give principle and instrumentation of NMR.
- Q3) a) Explain various types of ionization techniques in Mass spectroscopy.
b) Define J value and its application in NMR.
- Q4) a) Give the principle and instrumentation of High performance Thin Layer chromatography.
b) What do you mean by ion exchange chromatography?
- Q5) a) Give principle and application of Gel Electrophoresis.
b) Explain in detail various X ray diffraction methods.
- Q6) Write notes on following :
- a) Application of DSC.
b) Give advantages and disadvantages of DTA.
c) Instrumentation of Potentiometry.



- Q7) a) Define Vibrational frequency. Explain effect of conjugation on vibrational frequency.
b) Define Chemical Shift. Give in detail various factors affecting chemical shift.
- Q8) a) Give applications of Gas chromatography.
b) Write a note on X ray powder technique.

Note: Any student found attempting answer sheet from any other person(s), using incriminating material or involved in any wrong activity reported by evaluator shall be treated under UMC provisions.

Student found sharing the question paper(s)/answer sheet on digital media or with any other person or any organization/institution shall also be treated under UMC.

Any student found making any change/addition/modification in contents of scanned copy of answer sheet and original answer sheet, shall be covered under UMC provisions.