

02/01/24

Seat Number

--	--	--	--	--	--

DADU-12

MQA 101T : Modern Pharmaceutical Analytical Techniques

(161101)

Total Page : 1]

Time: 3 Hours

Max. Marks : 75

Instructions to Candidates:

1. Do not write anything on question paper except Seat No.
2. Graph or diagram should be drawn with the black ink pen being used for writing paper or black HB pencil.
3. Students should note, no supplement will be provided.
4. Attempt **any five** questions.
5. Each question carries equal marks.

1. Discuss the principle, pumps used and detectors in HPLC. 15
2. Describe the sample handling system and ionization techniques used in Mass spectroscopy. 15
3. Describe Gas chromatography instrumentation with principle and advantages. 15
4. Comment on differences between FES and AAS, explain with all the preferential points. 15
5. Explain principle, instrumentation of NMR. Discuss factors affecting chemical shift 15
6. Explain the Instrumentation of UV with Beer's Lamberts Law in detail. 15
7. Explain different vibrations observed in IR with detectors used. Write a note on FTIR 15
8. Explain Electrophoresis principle with subtypes, discuss zone and moving boundary electrophoresis 15