

W-3351**M.Sc. (Fourth Semester) Examination, June-2020****INDUSTRIAL CHEMISTRY****Paper - 402****Advanced Instrumental Techniques***Time : Three Hours**Maximum Marks : 85**Minimum Pass Marks : 29***Note :** Attempt **all** questions.**Unit-I**

- Q.1. Write notes on following: 17
i) Thermobalance.
ii) Thermogravimetric Titrations.

Unit-II

- Q.2. Explain the following: 17
i) Coulometry.
ii) Hydrogen electrode.

Unit-III

- Q.3. Discuss in detail the general theory and instrumentation of neutron diffraction. 17

Unit-IV

- Q.4. Explain optical rotatory dispersion with reference to theory instrumentation and applications. 17

Unit-V

- Q.5. Explain the following: 17
i) Scanning probe microscope.
ii) Surface characterisation of spectroscopy.

