Total No. of Pages 1 Roll no.....

~~FIRST~~ IV SEMESTER (supplimentry) B.Tech. (PT)

END SEMESTER EXAMINATION *Feb-2019*

PT 207 Engineering analysis and design

Time: 3:00 Hours *Max. Marks : 40*

Note : All questions carry equal marks.
Assume suitable missing data, if any.

1. (a) Explain Light Scattering Method in detail to determine the molecular weight of the given polymer.
   (b) What is End group analysis? Explain.

2. (a) Explain the principle of Mass Spectroscopy in detail.
   (b) State and discuss the expected IR spectrum of PVA and PAA.

3. (a) Explain in detail X-ray diffraction method to determine the crystallinity of the polymer.
   (b) Explain crystallization kinetics in detail.

4. (a) Draw and explain typical stress-strain curve and show how to calculate flexural modulus ?
   (b) What is mean by isochronous curve? Explain in detail.

5. (a) Discuss the factors affecting the peak position of λ_{max} in UV-visible spectrum.
   (b) Draw the diagram illustrating creep and cold flow and explain in detail with an example.

END