

Q-5	Attempt all questions	(14)
	a) Differentiate Infrared spectra and Raman spectra.	7
	b) Express in detail classical theory of Raman effect.	7
Q-6	Attempt all questions	(14)
	a) What is Zeeman effect? Explain Zeeman effect using classical theory.	7
	b) Discuss salient features of vibrational-rotational spectra.	7
Q-7	Attempt all questions	(14)
	a) Explain the experimental arrangement needed for Zeeman effect.	8
	b) Elucidate the quantum numbers also state their physical significance.	6
Q-8	Attempt all questions	(14)
	a) Discuss fluorescence process in detail.	6
	b) Briefly explain on Raman Spectroscopy.	8

