

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -2 EXAMINATION- 2024

PhD (All Branches)

COURSE CODE (CREDITS): 13P1WPH112(3)

MAX. MARKS: 25

COURSE NAME: MATERIALS CHARACTERISATION

COURSE INSTRUCTORS: P. B. BARMAN

MAX. TIME: 1 Hour 30 Minutes

Note: (a) All questions are compulsory and carries equal marks

(b) The candidate is allowed to make Suitable numeric assumptions wherever required for solving problems

Q.No	Question
Q1	List and discuss the various causes of absorption in frequencies in certain materials.
Q2	How FTIR spectroscopy is advantageous over normal IR spectroscopy? Discuss.
Q3	What are the various sample fingerprints captured by PL spectra? Why deconvolution of broad peaks is required?
Q4	What is Raman Scattering? Discuss in detail the Raman Shift caused in Raman Scattering.
Q5	Write the advantages and limitations of AES.