

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- SEPTEMBER 2017

Ph. D. I Semester

COURSE CODE: 13P1WPH112

MAX. MARKS:15

COURSE NAME: MATERIALS CHARACTERIZATION

COURSE CREDITS: 03

MAX. TIME: One Hr

*Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means.*

1. Discuss in detail the quantitative analysis of powder mixtures for determination of crystalline size and lattice strain. [5 marks]
2. What is the use of X-ray photoelectron spectroscopy (XPS)? How does it work? What are the measurement challenges? [5 marks]
3. Discuss in detail the low-energy ion scattering spectroscopy (LEIS) technique. [5 marks]

PH-3, Ph.D