

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -2 EXAMINATION- 2023

Ph.D-I Semester (PMS)

COURSE CODE (CREDITS): 05P1WPH111 (03)

MAX. MARKS: 25

COURSE NAME: Thin Films

COURSE INSTRUCTORS: HAZ

MAX. TIME: 1.5 H

Note: (a) All questions are compulsory.

(b) Marks are indicated against each question in square brackets.

(c) The candidate is allowed to make suitable numeric assumptions wherever required for solving problems

Q1. Write short notes on (i) LPCVD (ii) MOCVD (iii) thin film nucleation (iv) PECVD (v)

Vacuum sealing technique

[10-marks]

Q2. Compare the thin film preparation by thermal evaporation and e-beam evaporation techniques

[5-marks]

Q3. What is sputtering technique of thin film deposition? Differentiate between DC and RF sputtering techniques.

[5-marks]

Q4. Discuss the electrochemical deposition methodology. Is it possible to deposit a metal on a plastic substrate by this method? Discuss your answer with plausible solutions to problems, if any.

[5-marks]