

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
WAKNAGHAT, SOLAN

Test-II (May-2019)

PhD (2nd SEM)

Course name: Advances in Nanotechnology

Course Code: 16P1WPH211

Max Marks: 35

Max Time: 2 Hrs

Note: All Questions are compulsory

1. State the attributes of MBE technique explaining its working for 2D nanostructure growth. (6)
2. What do you understand by Langmuir-Boldget Films? Schematically show the formation and transfer of Langmuir-Boldget Films on substrate. (6)
3. What do you understand by atomic layer deposition of films? Schematically show the formation of diamond film on substrate. (6)
4. How CVD and PVD methods are used to grow the nanostructures? Explain with a suitable example. (6)
5. Discuss the importance of surface energy in the formation of stable nanostructures in solution. (6)
6. Write short note on the following; (2.5+2.5)
 - (a) Sputtering for film formation.
 - (b) Influence of polymer stabilizers.