



Indian in C...

15. Draw the block diagram of optical fiber communication system and explain the function of each block. 10M

OR

16.a. What are attenuation losses in optical fibers. Explain in detail. 5M

16.b. Write the applications of optical fibers in industries and in medical field. 5M

17.a. Derive an expression for interplanar spacing in orthogonal system. 5M

17.b. Define Miller Indices and mention the steps involved. Sketch (110) & (001) the planes in a cube. 5M

OR

18.a. Describe seven crystal systems with neat diagrams. 5M

18.b. Calculate the packing fraction for HCP structure. 5M

19.a. Describe with suitable diagram the Laue method of X-ray diffraction and give the consequences. 5M

19. b. Define point defects? What are different types of point defects. 5M

OR

20. Explain different types of line defects. How the burger's vector is used to find the edge and screw dislocations. 10M