

SECTION-B

2. Explain the dispersion shifted and dispersion flattened fibers. Why do we need such fibers and how these fibers are made?
3. Give requirements and explain briefly some common material system used in fabrication of electroluminescent sources for optical fiber communications.
4. Discuss with the aid of a block diagram, the function of an optical fiber receiver. In addition, describe possible techniques for automatic gain control in APD receivers.
5. What is power budgeting in light wave systems? Discuss with typical expressions.
6. What are reasons for optical receiver sensitivity degradation?

SECTION- C

7. Discuss dispersion mechanisms with regard to single-mode fibers indicating the dominating effects. Hence, describe how intramodal dispersion may be minimized within the single-mode region.
8. Explain optical transmitter design by considering various issues and components used in it.
9. Explain high capacity point to point WDM lightwave systems.