**Part B**

1. Demonstrate the principle of a photonic switch based on self electro optic Device (SEED).

2.Explain about Electro-optic Modulators

3. Differentiate monolithic and hybrid integration of OEIC fabrication

4. Discuss about the materials and processing of OEICs

5. Comment on Active couplers.

6. List out the advantages of Erbium Doped Fiber Amplifiers.

7. How longitudinal electro optic modulator differs from transverse electro optic modulator?

8. Write a short note about Raman Nath Modulator.

9. Derive the expression for optical amplifier gain.

10. What are the challenges met by optoelectronic integrated circuit?

11. What do you mean by front end Photo receivers?

**Part C**

1.Explain in detail about Raman Nath and Bragg modulator

2.Discuss the basic configuration and gain of Semiconductor optical amplifier (SOA)

3.Illustrate the operation of a PIN diode integrated HBT photo receiver with a neat diagram

4. With a neat sketch, write about the guided wave Mach-Zehnder interferometer

5. Explain with a neat diagram, the construction and working of electro optic effect based longitudinal electro optic modulator.

6. Discuss the materials and processing techniques of OEIC.