

- m) What is PIV?
- n) Define holography

Attempt any four questions from Q-2 to Q-8

Q-2	Attempt all questions	(14)
A	Differentiate between P-type and N-type Semiconductors. Also name the doping materials used for their formation?	07
B	Discuss the electrical conduction phenomenon w.r.t. semiconductor.	07
Q-3	Attempt all questions	(14)
A	Explain Zener Diode as a Voltage Regulator.	07
B	Explain working of varactor diode.	07
Q-4	Attempt all questions	(14)
A	Explain the working of positive clamping circuit.	07
B	Draw the circuit diagram of half wave rectifier.	07
Q-5	Attempt all questions	(14)
A	Explain about DC load line and bias point of transistor.	07
B	Enlist various types of biasing methods for transistor and explain any one in detail.	07
Q-6	Attempt all questions	(14)
A	Discuss enhancement MOSFET and their characteristics.	07
B	Explain CD configuration for JFET with necessary diagram.	07
Q-7	Attempt all questions	(14)
A	Compare step index fiber and graded index fibre. State various applications of OFC.	07
B	Describe stimulated and spontaneous emission w.r.t LASER.	07
Q-8	Attempt all questions	(14)
A	Draw the circuit of a BJT in CE configuration and the corresponding V-I characteristics.	06
B	Compare :(i) BJT and FETs (ii) Clipper and Clamper Circuits.	08

