BACHELOR OF PRINTING ENGINEERING THIRD YEAR SECOND SEMESTER - 2023 Subject: IMAGING TECHNOLOGY (HONS.) Time: 3 hours Full Marks: 100

Any Four

1.	a)	Write about the color separation methods in digital camera etc.	10
	b)	Write in details about various color image sensors.	15
2.	a)	Explain spontaneous emission, stimulated emission and stimulated absorption.	10
	b)	Write on three components of laser.	15
3.	a)	Briefly write on characteristics of laser beam.	10
	b)	What is population inversion in laser production?	5
	c)	Write on different types of gain media (active media).	10
4.	a)	Draw the schematic diagram for making and reconstruction of hologram.	10
	b)	Write in details on applications of hologram.	15
5.	Writ	e short notes on	
	a)	Incandescent light sources.	7
	b)	High-intensity discharge lamps	6
	c)	Fluorescent light sources	6
	d)	Light emitting diode	6