

BACHELOR OF PRINTING ENGINEERING THIRD YEAR SECOND SEMESTER - 2024

Subject: IMAGING TECHNOLOGY (HONS.)

Time: 3 hours

Full Marks: 100

Any Four

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| 1. | 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 |
| 2. | a) | Explain spontaneous emission, stimulated emission and stimulated absorption. | 10 |
| | b) | Write on three components of laser. | 15 |
| 3. | a) | Draw the schematic diagram for making and reconstruction of hologram. | 10 |
| | b) | Write in details on applications of hologram. | 15 |
| 4. | a) | Write about the color separation methods in digital camera etc. | 10 |
| | b) | Write in details about various color image sensors. | 15 |
| 5. | Write short notes on | | |
| | a) | Incandescent light sources. | 7 |
| | b) | High-intensity discharge lamps | 6 |
| | c) | Fluorescent light sources | 6 |
| | d) | Light emitting diode | 6 |