

# Vidyavardhini's College of Engineering & Technology, Vasai (W)

## First Year Engineering

Academic Year: 2024-25

Subject: BSC102/AP

Assignment No: 01

Date: 11/10/2024

Max. Marks: 10

Duration: 1 Hr

CO 1: Illustrate the use of laser in LiDAR and Barcode reading.

Q. No.	Questions	Marks	CO	CL
1	Explain the basic quantum processes in laser.	3	1	2
2	Explain active medium, resonating cavity, and pumping mechanism for laser.	2	1	3
3	Explain Helium-Neon Laser with energy level diagram.	3	1	2
4	Explain any one application of laser.	2	1	3

### Rubrics for the Assessment

Performance Indicator	Exceed Expectations (EE) (10)	Meet Expectations (ME) (7)	Below Expectations (BE) (4)
Completeness	<i>The entire assignment/tutorial was completed before deadline specified.</i>	<i>The assignment/tutorial was completed on deadline.</i>	<i>Partial/late submission of assignment/ tutorial.</i>
Demonstrated Knowledge	<i>Shows complete understanding of the questions, mathematical ideas, and processes.</i>	<i>Shows considerable understanding of the problem, ideas, and processes.</i>	<i>Response shows a complete lack of understanding for the problem.</i>
Legibility	<i>Very neat. Writing illustrates a lot of thought and preparation.</i>	<i>Mostly neat and legible. Writing illustrates some thought and preparation.</i>	<i>Not legible. Hard to read. Ideas expressed are difficult to understand.</i>