Name. ……. **Student Admn. No.: ……..……..…**	**Printed Pages:01**

School of Basic and Applied Sciences
End Term Examination (ETE), July 2022, Summer Semester 2021-22
[Programme: B Tech] [Semester: I] [Batch: all]

Course Title: Engineering Physics **Course Code: BPH101/PHYS1001**	**Max Marks: 50** **Time: 3 Hrs.**

Instructions:
1. *All questions are compulsory.*
2. *Assume missing data suitably, if any.*

	SECTION-A (10 Marks)			
1.	Write any three properties of matter waves.	CO1	K2	2
2.	Define interference.	CO2	K2	2
3.	Write characteristics of a laser light.	CO3	K3	2
4.	Define curl and divergence of a vector A**.**	CO4	K3	2
5.	Define soft and hard magnetic materials	CO5	K3	2
	SECTION-B (16 Marks)			
6.	Explain the properties of wave function and its physical significance.	CO1	K3	5
7.	Define the diffraction phenomenon due to grating. Write the grating equation.	CO2	K4	5
8.	Discuss the formation of hysteresis loop for a ferromagnetic material.	CO5	K4	6
	SECTION-C (24 Marks)			
9.	Define absorption, spontaneous emission and stimulated emission.	CO3	K4	8
10.	Describe Maxwell's equations in free space.	CO4	K4	8
11.	Discuss diamagnetic, paramagnetic and ferromagnetic substances and its properties.	CO5	K4	8