U7609

Reg. No.: ……..

Name:……...

University of Kerala

First Semester Degree Examination,November 2024

Four Year Under Graduate Programme

Multi Disciplinary Course

PHYSICS

UK1MDCPHY104 - PHYSICS OF EVERYDAY APPLIANCES

Academic Level: 100-199

Time:1½ Hours **Max. Marks: 42**

Part A.
Answer All Questions Objective Type. 1 Mark Each.
(Cognitive Level: Remember/Understand)
6 Marks. Time: 6 Minutes.

Qn. No.	Question	Cognitive Level	Course Outcome (CO)
1.	Name a material used as filament in incandescent lamp	Remember	1
2.	Define non-Polar molecule	Remember	3
3.	Explain the principle of induction stoves	Understand	2
4.	Explain two major defects in human eye	Understand	2
5.	Explain heat capacity	Understand	3
6.	Explain resonance	Understand	1

Part B.

Answer All Questions Short Answer. 2 Marks Each.
(Cognitive Level: Understand/Apply)
8 Marks. Time: 24 Minutes.

Qn. No.	Question	Cognitive Level	Course Outcome (CO)
7.	Explain the principle of Laser	Understand	1
8.	Distinguish between focal length and f number	Understand	2
9.	Explain the four methods of heat transfer	Understand	3
10.	Explain the working of electronic clock	Understand	1

Part C.
Answer all 4 Questions, choosing among options within each question.
Long Answer. 7 marks each.
(Cognitive Level: Apply/Analyse/Evaluate/Create)
28 Marks. Time: 60 Minutes.

Qn. No.	Question	Cognitive Level	Course Outcome (CO)
11.	A.i Explain the working principle of Light Emitting Diodes (LEDs) ii.The advantages of using LEDs over traditional lighting solutions **OR** B. According to BEE standards discuss the needs for saving energy	Understand	1
12.	A. i. Describe a real image ii. Explain the effect of lens diameter in focusing an image **OR** B. Explain the working of different image sensors	Understand	2
13.	A. Explain the working of a microwave oven. **OR** B.i. Describe an internal combustion engine ii. Discuss the four stages in the working of an internal combustion engine?	Understand	3
14.	A. i. Describe BLDC motors ii. Discuss the practical applications of BLDC motors **OR** B. i. Explain fundamental and higher order modes ii. Discuss sympathetic vibrations with example.	Understand	1