NATIONAL OPEN UNIVERSITY OF NIGERIA
PLOT 91, CADASTRAL ZONE, NNAMDI AZIKIWE EXPRESSWAY, JABI - ABUJA
FACULTY OF SCIENCES
DEPARTMENT OF PHYSICS
2025_2 EXAMINATIONS

COURSE CODE: **PHY492**
COURSE TITLE: **LABORATORY PHYSICS**
CREDIT UNIT: **3**
TIME ALLOWED: **(3 HRS)**
INSTRUCTION: ***Answer question 1 and any other three questions***

QUESTION 1

(a) Define center of curvature (3 marks)
(b) A 8.0 cm tall light bulb is placed a distance of 16.0 cm from a concave mirror having a focal length of 3.0cm. Determine the image distance and the image size (8.5 marks)
(c) Give five (5) differences between Voltmeter and Ammeter (7.5marks)
(d) Distinguish between donor and acceptor impurities (6marks)

QUESTION 2

(a) Define radius of curvature (3marks)
(b) Give four (4) disadvantages of half wave rectifier (8marks)
(c) Mention two (2) application of full wave rectifier (4marks)

QUESTION 3

(a) Draw a diagram to illustrate half wave rectifier (7.5 marks)
(b) Mention five (5) ways to obtain the focal length of the concave mirror (7.5 marks)

QUESTION 4

(a) Define half wave rectifier (3marks)
(b) Differentiate between Voltmeter and Ammeter (4marks)
(c) Mention four (4) characteristic of full wave rectifier (8marks)

QUESTION 5

(a) Define full wave rectifier (3marks)
(b) Give four (4) advantages of half wave rectifier (8marks)
(c) Mention two (2) types of full wave rectifier (4marks)

QUESTION 6

(a) Define a diode (3marks)
(b) List five (5) characteristics of half wave rectifier (7.5 marks)
(c) Mention three (3) application of half wave rectifier (4.5 marks)