



QP CODE: 22103400



Reg No : .....

Name : .....

**UNDER GRADUATE (CBCS) REGULAR / REAPPEARANCE EXAMINATIONS,  
NOVEMBER 2022**

**Fifth Semester**

(Offered by the Board of Studies in Physics )

**OPEN COURSE - PH5OPT02 - PHYSICS IN DAILY LIFE**

2017 Admission Onwards

51CBF125

Time: 3 Hours

Max. Marks : 80

**Part A**

*Answer any **ten** questions.*

*Each question carries **2** marks.*

1. The sky of moon is black in colour. Why?
2. What is critical angle?
3. Which type of mirror is used as rear view mirror in motor vehicle?
4. Which type of lens is used to correct long-sightedness?
5. Under what condition will the magnitude of the displacement be equal to the distance travelled by an object?
6. State Newton's first law of motion.
7. What is the relation between electric charge and electric current?
8. What is the use of a step up transformer?
9. Cotton dresses are preferred in summer because it absorbs more sweat. Explain the physics behind it.
10. Convert 300 degree Kelvin to degree Fahrenheit.
11. If sound becomes louder, which wave characteristic is likely increasing: frequency, wavelength, amplitude, or speed?
12. Which is the planet nearest to sun and which planets is near to the Earth ?

(10×2=20)

**Part B**





Answer any **six** questions.  
Each question carries **5** marks.

13. How can we calculate error in the case of addition and subtraction of two measurements?
14. What is interference of light?
15. What is focal length of a lens? Give the expression for focal length of a lens in terms of refractive index of the lens and radius of curvature of the lens.
16. How does uniform linear motion differ from uniform circular motion? Give two points of differences.
17. Briefly explain the terms 1) centripetal acceleration and 2) centrifugal force.
18. Write a short note on solar power generation.
19. You can look directly into a 10 Watt incandescent bulb when it is glowing but it will be quite harmful to look directly into a 10 milli Watt Laser. Explain Why?
20. What is a black hole ?
21. What is a Geostationary satellite?

(6×5=30)

### Part C

Answer any **two** questions.  
Each question carries **15** marks.

22. What are the seven fundamental units? Give the name of any four derived quantities and give their SI units and their dimensions.
23. State Newtons law of Gravitation and get an expression for acceleration due to gravity.
24. State Bernoulli's theorem and derive Bernoulli's equation.
25. With a neat diagram explain how lunar and solar eclipse occurs?

(2×15=30)

