21101590

**QP CODE: 21101590**

**Reg No :** .....

**Name :** .....

# UNDER GRADUATE (CBCS) SPECIAL SUPPLEMENTARY EXAMINATIONS, JULY 2021

## Fifth Semester

(Offered by the Board of Studies in Physics )

## OPEN COURSE - PH5OPT02 - PHYSICS IN DAILY LIFE

2018 Admission Only

D45B2013

Time: 3 Hours Max. Marks : 80

### Part A

*Answer any **ten** questions.*

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

1. What is the relation between velocity, wavelength and frequency of a wave?
2. What is the reason for blue colour of sky?
3. The reflecting surface of a spherical mirror is curved inward. Which type of mirror is it?
4. Which type of lens is used to correct long-sightedness?
5. Is velocity a vector quantity? Why?
6. Distinguish between weight and mass.
7. What is unit of Electric Current?
8. Write down names of any two Wind power generation fields in Kerala.
9. State Bernoulli's theorem.
10. How do we account for very low resistance for superconductors.
11. When we see the moon from the earth, we can see some black patches on the moon. What are they?
12. Do any special radiations come out from the Sun during the time of solar eclipse? Why?

(10×2=20)

### Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*

13. Give any two uses of dimensional analysis with example.

14. Find the order of magnitude a) 2576 b) 864 c) 0.00368 and d) 0.00847.

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. Explain the term Torque.

17. When we travel in a vehicle which takes a curve, we feel a pull to the outward direction of curve. Explain this phenomenon.

18. What is meant by DC and AC? , give example for each.

19. Our farmers plough fields before summer to reduce the evaporation of groundwater. What is the science behind it?

20. Write a short note about the Fahrenheit scale of temperature.

21. What Is Doppler Effect ?

(6×5=30)

**Part C**

*Answer any **two** questions.*

*Each question carries **15** marks.*

22. What is total internal reflection? What are the conditions for total internal reflection? Explain any two examples for total internal reflection.

23. State and explain Newton’s laws of motion.

24. How do we classify stars?

25. Explain the importance of artificial satellites in our modern life.

(2×15=30)