QP CODE: 24002581

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Reg No : .....

Name : .....

UNDER GRADUATE (CBCS) SPECIAL REAPPEARANCE EXAMINATIONS, MARCH 2024

Fifth Semester

(Offered by the Board of Studies in Physics)

OPEN COURSE - PH5OPT02 - PHYSICS IN DAILY LIFE

2021 Admission Only

9811DD54

Time: 3 Hours Max. Marks : 80

Part A

*Answer any **ten** questions.*

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

1. What is the SI unit of Luminous of intensity?
2. What do you mean by random error?
3. The sky of moon is black in colour. Why?
4. What is long sightedness?
5. How did Newton explained the idea of force with the help of inertia?
6. What is the name of the instrument we use to measure Electric current?
7. What is a step down transformer?
8. Write down names of any two Wind power generation fields in Kerala.
9. State Bernoulli's theorem.
10. Write down some uses of LASER.
11. Complete this sentence. Planets go around the .....and .....go around planets.
12. Name the star which is nearest to the Earth.

(10×2=20)

Part B

*Answer any **six** questions.*

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

13. What is Rayleigh scattering law?

14. Distinguish between concave and convex mirrors.

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. Two objects having the same mass on the Earth is taken to moon. On the surface of the moon will they have same mass or same weight? Explain your answer.

17. Why does sparks coming out tangentially from the grid stone when knife or any other such objects are sharpened?

18. For a vehicle to have a safe turning at a reasonable speed on road banking is necessary. Why?

19. Explain different states of matter based of molecular attraction.

20. With neat diagrams explain what do you understand by terms Amplitude, Wavelength and Period of a wave.

21. What is RADAR? How does it works?

(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. Draw and explain a velocity - time graph for the motion of an object having (i) Positive velocity and negative uniform acceleration. (ii) Positive velocity and positive uniform acceleration (iii) Positive velocity and zero acceleration.

24. With a neat diagram explain how lunar and solar eclipse occurs.

25. What is GPS? Explain how is it achieved?

(2×15=30)