QP CODE: 19102440

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Reg No : .....

Name : .....

UNDERGRADUATE (CBCS) EXAMINATION, OCTOBER 2019

Fifth Semester

(Offered by the Board of Studies in Physics)

Open Course - PH5OPT02 - PHYSICS IN DAILY LIFE

2017 Admission Onwards

274676CC

Maximum Marks: 80 Time: 3 Hours

Part A

*Answer any **ten** questions.*

Each question carries 2 marks.

1. What is the relation between Real depth and Apparent depth in optics?
2. What is dispersion of light?
3. The reflecting surface of a spherical mirror is curved outward. Which type of mirror is it?
4. Which type of lens are called diverging lens?
5. Give the SI unit of acceleration.
6. Why does a Canon recoil after firing ?
7. Why do we place handles at maximum possible distance from the hinges in a door ?
8. Riders on a roller coaster may feel weightlessness at the top of the ride why?
9. Give any two application of Bernoulli's theorem.
10. Some people measure heat energy in calories. How many calories makes a Joule?
11. Name the biggest and smallest planets of the solar system.
12. What do you understand by the term Black hole?

(10×2=20)

Part B

*Answer any **six** questions.*

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

13. The mass of a box is 12.48gm. A coin of mass 3.2 gm is placed on it. Find the total mass and difference in mass by rounding to the correct decimal place.

14. What is refraction of light? Give any two example for refraction of light.

15. Distinguish between long sightedness and short sightedness of human eye.

16. What is Ohm's law?

17. How much electrical energy will be consumed by a bulb of 25W if used for an hour?

18. Write a short note on Hydroelectric power generation.

19. Distinguish between transverse and longitudinal waves.

20. What is lunar eclipse?

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. Define surface tension. Discuss the molecular theory of surface tension.

25. Distinguish between fluorescence and phosphorescence. Explain how do we make use of each of these phenomena in our daily life.

(2×15=30)