

Total page: 01

PG CBCS
M.Sc. Semester-II Examination, 2022
PHYSICS
 PAPER: C-PHS 204
(CONCEPTS OF PHYSICS: INVENTIONS AND APPLICATIONS -
CBCS)

Full Marks: 40

Time: 2 Hours

Write the answer for each unit in separate sheet

The figures in the right-hand margin indicate full marks.
 Candidates are required to give their answers in their own words as far as practicable.

C-PHS 204: Concepts of Physics : Inventions and applications (CBCS)**Marks: 40****GROUP-A****1. Answer any four questions:**

4×2=8

- a) Define nanomaterial?
- b) What are the characteristics of superconductor?
- c) Write Kepler's laws.?
- d) What is the limitation of Dalton's atomic theory?
- e) Write the principle of refrigerator.
- f) Give difference between CFL and LED.

**GROUP-B****2. Answer any four questions:**

4×4=16

- a) Why is the sky blue?
- b) Explain Einstein's theory of photoelectric effect.
- c) Write down the radioactive decay laws.
- d) Give a brief outline on USG.
- e) What is MRI and PDT.
- f) Give a brief outline on electromagnetic spectrum from radio frequency to γ rays.

GROUP-C**3. Answer any two questions:**

2×8=16

- a) Write Archimedes' principle. A small boat with a passenger and an anchor float in small pool. The passenger throws the anchor into the water. Will the water level in pool increase, decrease or stay the same? Explain the answer.
- b) How does transistor radio work? Give difference between AM and FM-radio?
- c) Write basic ideas of optical fiber, holography and national science day of India
- d) Give a brief outline for the development of atom-model from ancient time to modern time.
