

# Chapter Wise Ncert Exemplar Past 12 Years Solutions For Cbse Class 12 Physics: An In-Depth Guide

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The Learning App

Exemplar Solutions for Class 12 Physics Chapter 4-  
Moving Charges and Magnetism

**Multiple Choice Questions I**

4.1. Two charged particles traverse identical helical paths in a completely opposite sense in a uniform magnetic field  $B = B_0 \hat{k}$ .

a) they have equal  $z$ -components of momenta  
b) they must have equal charges  
c) they necessarily represent a particle-antiparticle pair  
d) the charge to mass ratio satisfy:  $(e/m)_1 = (e/m)_2 = 0$

Answer:  
d) the charge to mass ratio satisfy:  $(e/m)_1 = (e/m)_2 = 0$

4.2. Biot-Savart law indicates that the moving electrons produce a magnetic field  $B$  such that

a)  $B \propto v$   
b)  $B \propto 1/r$   
c) it obeys inverse cube law  
d) it is along the line joining the electrons and point of observation

Answer:  
a)  $B \propto v$

4.3. A current circular loop of radius  $R$  is placed in the  $x-y$  plane with centre at the origin. Half of the loop with  $x > 0$  is now bent so that it now lies in the  $x-z$  plane.

a) the magnitude of magnetic moment now diminishes  
b) the magnetic moment does not change  
c) the magnitude of  $B$  at  $(0,0,z)$ ,  $z \gg R$  increases  
d) the magnitude of  $B$  at  $(0,0,z)$ ,  $z \gg R$  is unchanged

Answer:  
a) the magnitude of magnetic moment now diminishes

4.4. An electron is projected with uniform velocity along the axis of a current carrying long solenoid. Which of the following is true?

a) the electron will be accelerated along the axis  
b) the electron path will be circular about the axis  
c) the electron will experience a force at  $45^\circ$  to the axis and hence execute a helical path  
d) the electron will continue to move with uniform velocity along the axis of the solenoid

Answer:  
d) the electron will continue to move with uniform velocity along the axis of the solenoid

4.5. In a cyclotron, a charged particle

a) undergoes acceleration all the time  
b) speeds up between the dees because of the magnetic field  
c) speeds up in a dee  
d) slows down within a dee and speeds up between dees

Answer:  
a) undergoes acceleration all the time

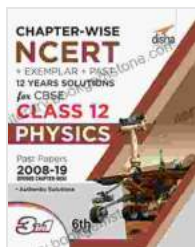
4.6. A circular current loop of magnetic moment  $M$  is in an arbitrary orientation in an external magnetic field  $B$ . The work done to rotate the loop by  $180^\circ$  about an axis perpendicular to its plane is

a)  $MB$

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The National Council of Educational Research and Training (NCERT) Exemplar Problems are a valuable resource for students preparing for the

Central Board of Secondary Education (CBSE) Class 12 Physics examination. These problems are designed to challenge students' understanding of the concepts covered in the NCERT textbooks and to prepare them for the higher-order thinking skills required in the exam.



## Chapter-wise NCERT + Exemplar + Past 12 Years Solutions for CBSE Class 12 Physics 6th Edition

by Disha Experts

★★★★☆ 4.1 out of 5

Language : English

File size : 38238 KB

Print length : 314 pages

Screen Reader : Supported



The Chapter Wise Ncert Exemplar Past 12 Years Solutions For Cbse Class 12 Physics is a comprehensive guide that provides step-by-step solutions to all the NCERT Exemplar Problems from the past 12 years. This guide is an invaluable resource for students who want to master the concepts of Physics and excel in their exams.

### Key Features

The Chapter Wise Ncert Exemplar Past 12 Years Solutions For Cbse Class 12 Physics offers a number of key features that make it an essential tool for exam preparation:

- **Comprehensive coverage:** The guide covers all the chapters in the NCERT Physics textbook, providing solutions to all the NCERT Exemplar Problems from the past 12 years.

- **Step-by-step solutions:** Each solution is explained in a clear and concise manner, with step-by-step instructions that make it easy for students to follow.
- **Detailed explanations:** The explanations of the solutions are detailed and thorough, providing students with a deep understanding of the concepts involved.
- **Chapter-wise organization:** The guide is organized chapter-wise, making it easy for students to find the solutions they need.
- **Printable format:** The guide is available in a printable format, so students can easily print out the solutions they need to study.

## **Benefits of Using the Guide**

Using the Chapter Wise Ncert Exemplar Past 12 Years Solutions For Cbse Class 12 Physics can provide students with a number of benefits, including:

- **Improved understanding of concepts:** By working through the solutions to the NCERT Exemplar Problems, students can gain a deeper understanding of the concepts covered in the NCERT Physics textbook.
- **Enhanced problem-solving skills:** The guide provides students with practice solving higher-order thinking problems, which can help them develop their problem-solving skills.
- **Increased confidence:** By successfully solving the NCERT Exemplar Problems, students can build confidence in their ability to succeed in the CBSE Class 12 Physics exam.

- **Better exam preparation:** The guide provides students with a comprehensive review of the concepts covered in the NCERT Physics textbook, which can help them prepare for the exam.

## How to Use the Guide

The Chapter Wise Ncert Exemplar Past 12 Years Solutions For Cbse Class 12 Physics can be used in a number of ways to help students prepare for the CBSE Class 12 Physics exam:

- **As a study resource:** Students can use the guide to review the concepts covered in the NCERT Physics textbook and to practice solving problems.
- **As a problem-solving tool:** Students can use the guide to solve problems that they are struggling with in class or in their homework.
- **As an exam preparation tool:** Students can use the guide to review the concepts covered in the NCERT Physics textbook and to practice solving problems in preparation for the CBSE Class 12 Physics exam.

The Chapter Wise Ncert Exemplar Past 12 Years Solutions For Cbse Class 12 Physics is an invaluable resource for students preparing for the CBSE Class 12 Physics examination. The guide provides comprehensive coverage of the NCERT Exemplar Problems, with step-by-step solutions and detailed explanations. Using the guide can help students improve their understanding of the concepts covered in the NCERT Physics textbook, enhance their problem-solving skills, increase their confidence, and better prepare for the exam.



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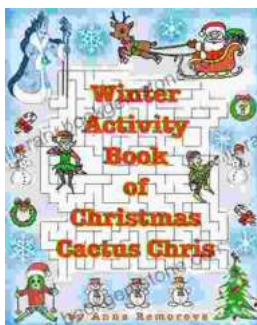
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