

Physics

Question-Bank

**For Compititive Examination Like
JEE • NEET • AIPMT • GUJCET • AFMC • AIIMS...**



PLEDGE

India is my country.

All Indians are my brothers and sisters.

I love my country and I am proud of its rich and varied heritage.

I shall always strive to be worthy of it.

I shall respect my parents, teachers and all elders and treat everyone with courtesy.

I pledge my devotion to my country and its people.

My happiness lies in their will-being and prosperity.

Price : ₹



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PREFACE

Gujarat State Board of School Textbooks has always made efforts to upgrade the quality of education by providing reference and supplementary material in addition to providing textbooks.

The Academic and Research Committees have prepared best quality reference and supplementary material which is helpful to the students in accordance with the competitive examinations like JEE / NEET / GUJCET. In the past also, the Textbook Board has published various reference books for the betterment of education. At school level teaching, there is always a need for extra references. In this context, in order to make the school syllabi more effective, supplementary material is prepared. In this reference, we are happy to publish **Physics Question Bank** for students of **Std. XI and XII**.

If the students, with the help of this question bank practices more, under the guidance of teachers, then the goal of the textbook board is achieved. This question bank is very useful to the Mathematics teachers and the readers associated with education. We expect that the students may achieve success in the competitive examinations like JEE / NEET / GUJCET by using this supplementary material.

The board is thankful to all the experts, authors, lay-out designers and others who have directly or indirectly extended their services in the preparation of Question Bank of Physics.

The board has taken enough care to make this Question Bank of Physics interesting, useful and error-free. However, suggestions from students, teachers, parents and academicians are welcome.

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FUNDAMENTAL DUTIES

It shall be the duty of every citizen of India : *

- (a) to abide by the Constitution and respect its ideals and institutions, the National Flag and the National Anthem;
- (b) to cherish and follow the noble ideals which inspired our national struggle for freedom;
- (c) to uphold and protect the sovereignty, unity and integrity of India;
- (d) to defend the country and render national service when called upon to do so;
- (e) to promote harmony and the spirit of common brotherhood amongst all the people of India transcending religious, linguistic and regional or sectional diversities; to renounce practices derogatory to the dignity of women;
- (f) to value and preserve the rich heritage of our composite culture;
- (g) to protect and improve the natural environment including forests, lakes, rivers and wild life, and to have compassion for living creatures;
- (h) to develop scientific temper, humanism and the spirit of inquiry and reform;
- (i) to safeguard public property and to abjure violence;
- (j) to strive towards excellence in all spheres of individual and collective activity so that the nation constantly rises to higher levels of endeavour and achievement;
- (k) to provide opportunities for education by parent, the guardian, to his child, or a ward between the age of 6 to 14 years as the case may be.

* Constitution of India : Section 51-C

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Above this book

Dear Students,

All of you may appear for GUJCET/NEET and such similar type of state and national level other competitive exams. In such circumstances to get exam oriented perfect guidance and availability of books are few in simple languages. Considering such fact, Gujarat State School Board of Textbooks has prepared question bank with the help of experienced subject experts with proper care and precautions.

Important salient feature and specificity of this book is as such :

- All points and subject matter for GSEB, Gujcet / NEET competitive exams are included in it.
- Students can revise speedily for it all points are properly explained in MCQs and answers for it are also included.
- Each chapter contains various types of questions and question for practical applications and important questions for NEET are included.
- Ideal question papers for practice and question papers of Gujcet, AIPMT and AIIMS are included.
- All MCQs and competitive exams question papers with solution are included.

Chapter wise comparison of GSEB syllabus with NEET Syllabus is also given. Hopefully, this will be useful for all students and provide proper guideline for all exams.

- Authors

Comparison of Syllabus

No	GSEB			JEE/NEET	
	Standard	Chapter	Chapter Name	Unit	Unit's Name
1.	11/1	Ch : 1	Physical World	Unit : 1	Physical World and Measurement
		Ch : 2	Measurement and System of Units		
2.	11/1	Ch : 3	Motion in a Straight line	Unit : 2	Kinematics
		Ch : 4	Motion in a plane		
3.	11/1	Ch : 5	Laws of Motion	Unit : 3	Laws of Motion
4.	11/1	Ch : 6	Work, Energy and Power	Unit : 4	Work, Energy and Power
5.	11/1	Ch : 7	Heat Transfer	Unit : 7	Property of solid and Liquid
6.	11/1	Ch : 8	Kinetic Theory of Gases	Unit : 9	Kinetic Theory of Gases

No	GSEB			JEE/NEET	
	Standard	Chapter	Chapter Name	Unit	Unit's Name
7.	11/2	Ch : 1	Dynamics of a system of Particles	Unit : 5	Rotational Motion
		Ch : 2	Rotational Motion		
8.	11/2	Ch : 3	Gravitation	Unit : 6	Gravitation
9.	11/2	Ch : 4	Mechanical Properties of Solids	Unit : 7	Property of Solid and Liquid
		Ch : 5	Fluid Mechanics		
10.	11/2	Ch : 6	Thermodynamics	Unit : 8	Thermodynamics
11.	11/2	Ch : 7	Oscillation	Unit : 10	Oscillation and Waves
		Ch : 8	Waves		
12.	12/1	Ch : 1	Electric charge and Electric Field	Unit : 11	Electrostatics
		Ch : 2	Electrostatic Potential and Capacitance		
13.	12/1	Ch : 3	Current Electricity	Unit : 12	Current Electricity
14.	12/1	Ch : 4	Magnetic Effects of Electric Current	Unit : 13	Magnetic effect of Current and Magnetism
		Ch : 5	Magnetism and Matter		
15.	12/1	Ch : 6	Ray Optics	Unit : 16	Optics
16.	12/11	Ch : 7	Dual Nature of Radiation and Matter	Unit : 17	Dual Nature of Radiation and Matter
17.	12/1	Ch : 1	Electromagnetic Induction	Unit : 14	Electromagnetic Induction and Alternating Current
		Ch : 2	Alternating Current		
18.	12/2	Ch : 3	Electromagnetic Waves	Unit : 15	Electromagnetic Waves
19.	12/2	Ch : 4	Wave Optics	Unit : 16	Optics
20.	12/2	Ch : 5	Atoms	Unit : 18	Atoms and Nucleus
		Ch : 6	Nucleus		
21.	12/2	Ch : 7	Semiconductor Electronics : Materials, Devices and Simple Circuits	Unit : 19	Electronic Devices
22.	12/2	Ch : 8	Communications Systems	Unit : 19	Communication Systems