

**SHRI JAIN VIDYA PRASARAK MANDAL COLLEGE OF EDUCATION  
CHINCHWADGAON, PUNE-33  
INTERNAL WRITTEN EXAMINATION 2023-24**

**B.ED COURSE 205-15 : Additional Pedagogy Course Understanding Disciplines & School  
Subjects & Pedagogy Of School Subject – PHYSICS**

**Marks:- 80**

**Date :-**

**Time :- 3 Hrs**

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**Q.1) What is Energy ? Write the concept, unit, types of Energy ? Which are the Laws of Conservation of Energy? 15**

**OR**

**Q.1) What is Need for Measurement ? Write down the Units for measurement & Systems of Units ?**

**Q.2) ANSWER THE FOLLOWING (ANY 3) 15**

- 1) Newton's Three laws of Motion.
- 2) Right Hand Rule
- 3) Nature & Characteristics of sound waves
- 4) Motion of an Object
- 5) SONAR

**Q.3) ANSWER THE FOLLOWING. 10**

- 1) The reference standard used for the measurement of a .....is called a unit.
- 2) The difference between the true value and measured value of a physical quantity is called .....
- 3) Angular velocity of a particle performing ..... is defined as the time rate of change of limiting angular displacement.
- 4) A current carrying conductor produces magnetic field around it, This is .....of electric current.
- 5) The maximum displacement of particle from mean position is called as.....
- 6) A wave in which particle of medium vibrate in a direction perpendicular to the direction of propagation of the wave is called as.....
- 7) Physical quantities which have magnitude only are called .....
- 8) Relative Error =.....
- 9) The speed of the particle can be zero or positive but never.....
- 10) Velocity of sound is proportional to the square root of absolute temperature i.e .....

**Q.4) What is Correlation ? Explain the types of correlation? how will you correlate Physics with Biology and chemistry? ( 15 Marks )**

प्र.४) समवाय म्हणजे काय? समवायाचे प्रकार स्पष्ट करा. तुम्ही भौतिकशास्त्र विषयाचा समवाय जीवशास्त्र आणि रसायनशास्त्र विषयाशी कसा साधाल?

**OR**

**Q.4) What is textbook? what are the characteristics of Good Textbook? Evaluate eleventh standard Physics Textbook. ( 15 Marks )**

प्र.४) पाठ्यपुस्तक म्हणजे काय? चांगल्या पाठ्यपुस्तकाचे वैशिष्ट्य सांगा. इयत्ता अकरावी भौतिकशास्त्र पाठ्यपुस्तकाचे मूल्यमापन करा.

**Q.5) Explain Project method of teaching in Physics with respect to following points ( 15 Marks)**

**i) Nature ii) Steps iii) Role of teacher iv) Role of student**

प्र.५) भौतिकशास्त्र अध्यापनाची प्रकल्प पद्धती खालील मुद्द्यांच्या आधारे स्पष्ट करा.

अ) स्वरूप ब) पायऱ्या क) शिक्षकाची भूमिका ड) विद्यार्थ्यांची भूमिका

**OR**

**Q.5) Explain the Physics laboratory with respect to following points. (15 Marks)**

**i) Planning ii) Organization iii) Importance in teaching learning process.**

प्र.५) भौतिकशास्त्र प्रयोगशाळेचे स्पष्टीकरण खालील मुद्द्यांच्या आधारे करा.

अ) नियोजन ब) संघटन क) अध्ययन अध्यापन प्रक्रियेतील महत्त्व

**Q.6) Answer the following. ( Any 2 ) ( 10 Marks )**

**i. Competencies of Physics teacher.**

अ) भौतिकशास्त्र शिक्षकाच्या क्षमता

**ii. Learning resources of Physics.**

ब) भौतिकशास्त्र विषयातील अध्ययन स्रोत

**iii. Write the importance of Physics in daily life.**

क) दैनंदिन जीवनातील भौतिकशास्त्र विषयाचे महत्त्व

**iv. Merits of experimental method.**

ड) प्रयोगशाळा पद्धतीचे फायदे.

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