

NORTH-EX PUBLIC SCHOOL
(Senior Secondary, Affiliated To CBSE)
School Block, Jain Nagar, Sector-38, Rohini, Delhi – 81
PERIODIC - 02, 2019-20
SUBJECT – SCIENCE
CLASS - IX

TIME: 1 hr 20 min

MM: 40

General Instructions:

- (i) All questions are compulsory
 - (ii) There are 17 questions in total. Questions 1 to 5 are objective type questions carry one mark each.
 - (iii) Questions 6 to 10 carry two marks each, questions 11 to 15 carry three marks each
 - (iv) Questions 16 and 17 carry five marks each.
 - (v) There is no overall choice.
- 1.
 2. What are infrasonic and ultrasonic sounds?
 - 3.
 - 4.
 - 5.
 6. An echo returned in 3 second. What is the distance of the reflecting surface from the source? Given that the speed of sound is 342 m/s.
 - 7.
 8. A sound wave has frequency of 3 kHz and a wavelength 45 cm. How long will it take to travel 1.8 km?
 - 9.
 - 10.
 - 11.
 12. The potential energy of a freely falling object decreases progressively. Does this violate the law of conservation of energy? Explain.
 - 13.
 - 14.
 - 15.
 - 16.
 17. Answer the following questions
 - (i) Derive a mathematical expression of kinetic energy for an object of mass 'm' and speed 'v'.
 - (ii) A car weighing 1200 kg is uniformly accelerated from rest and covers a distance of 40 m in 5 seconds. Calculate the work, the car engine had to do during this time.