

Half-yearly Examination - 2016-2017

PHYSICS

Time : 2 Hrs. + 15 mins.

Std. : VII

F. M. : 100

SECTION A (40 Marks)

A. Fill in the blanks :

(1x10=10)

1. Small and rapid oscillations are called _____
2. Flute is a _____ type of musical instrument
3. Sound cannot travel through _____
4. The cyclic movement of water during heating is called _____
5. _____ are used for making handle of cookwaxes
6. The speed of sound in air _____
7. _____ is used by bats to locate any obstacle in their path.
8. The sound of frequencies greater than _____ are called ultrasonic sound.
9. The time period of simple pendulum depend upon its _____
10. Pitch of a sound depend upon its _____

II. Write true or false and rewrite the correct statement :

(1x10=10)

1. Sound travels much faster than light in a given medium
2. On heating, iron expands more than copper.
3. The sound of frequencies greater than 20 KHz are called ultrasonic sounds.
4. Negative acceleration is called retardation
5. Heat energy is invisible
6. Sitar, Veena are percussion instrument.
7. No medium is required for transfer of heat by the process of convection
8. Larger is the amplitude, lesser is the sound.
9. The voice of a woman has a higher frequency than that of a man.
10. To transmit heat from one object to another the two objects should be in contact.

III. Match the following and write the correct pair : (10)

A

1. Sonar
2. Vibration cause
3. Compression and rarefaction
4. Sound of thunder
5. Thermoflask
6. Sublimation
7. Thermometric liquid
8. Upper fixed point
9. Rotatory motion
10. Uniform velocity

B

- noise
- solid state to gaseous
- mercury
- boiling point of water
- zero acceleration
- sound production
- sound wave
- wings of ceiling fan
- measures depth of sea at a place
- double wall

IV. Give two examples of each (2x3=6)

1. Rectilinear motion
2. Oscillatory motion
3. periodic motion

V. Write the S.I. unit of the following : (½x8=4)

1. frequency
2. acceleration
3. time period
4. temperature
5. velocity
6. amplitude
7. heat
8. distance

SECTION B

Answer any four questions

- A.
1. Name the three effects of heat. (3)
 2. Write two differences between sonic and subsonic sound. Give one example of each. (3)
 3. What is the role of the following in a thermoflask? (4)
 - a. silvered surfaces
 - b. vacuum between the two walls.
- B.
1. Distinguish between musical sound and noise. (3)
 2. Define acceleration due to gravity. Give the numerical value of acceleration due to gravity on the earth surface. (2)
 3. The frequency of sound wave is 500 Hz. Find its time period. (2)
 4. What is echo? Write the minimum distance required to hear echo. (3)
- C.
1. Write 3 steps to prevent noise pollution. (3)
 2. Define sonar. Give two uses of it. (3)
 3. What are the three modes of transfer of heat? (3)
 4. What is squeak? (1)

- D. 1. What do you mean by principle of calorimetry? (3)
2. Define persistence of hearing. (2)
3. Mention two uses of good conductors of heat. (2)
4. What are the three characteristics of sound? (3)
- E. 1. Differentiate between heat and temperatures. (3)
2. Give an example of expansion. (2)
3. A car is moving with a velocity of 8 ms^{-1} . It is accelerated at a rate of 0.8 m/s^2 for 20 sec. Find the velocity of the car. (3)
4. How does planting of trees help in reducing the noise level? (2)