# ECAT Pre General Science Physics Chapter 7 Oscillations

| Sr | Questions | Answers Choice |
|---|---|---|
| 1 | Amplitude in SHM is equivalent to _____ in circular motion: | A. Diameter<br>B. Radius<br>C. Circumference<br>D. None of these |
| 2 | Which one of the following is an example of SHM: | A. Motion in a plane<br>B. Motion in a swing<br>C. Motion in a car<br>D. None of these |
| 3 | In vibrational motion(SHM) | A. P.E remains conserved<br>B. Average K.E remain constant<br>C. Neither P.E nor K.E remains constant<br>D. Total energy remains constant |
| 4 | The time taken to complete one vibration is called: | A. Frequency<br>B. Amplitude<br>C. Time<br>D. Time period |
| 5 | When a mass attached to a spring begins to move left or right from the equilibrium position, its P.E.: | A. Increases<br>B. Decreases<br>C. Remains constant<br>D. None of these |
| 6 | The displacement of body executing SHM is | A. x<sub>o</sub>coswt<br>B. x<sub>o</sub>sinwt<br>C. x<sub>o</sub>sin<sup>2</sup>wt<br>D. Both A, B |
| 7 | Distance covered during one vibration of an oscillating body in terms of amplitude A is: | A. A<br>B. 2 A<br>C. 3 A<br>D. 4 A |
| 8 | If the waves produced in a microwave oven are of wave-length 12 cm, then their frequency will be: | A. 2500 MHz<br>B. 0.25 MHz<br>C. 2500 KHz<br>D. None of these |
| 9 | When quarter of a circle is completed, phase of vibration is: | A. 90<span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">°<br>B. 180<span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">°<br>C. 45<span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">°<br>D. 360<span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">° |
| | A spring of constant $k = 0.4\ Nm^{-1}$ is stretched through 10 cm and released. | A. 4 gms |

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| 10 | A spring of constant k = 0.4 N m $^{-1}$ is to be extended through 10 cm at a place where g = 10 m sec$^{-2}$. The mass to be suspended should be: | B. 0.4 gm<br>C. 40 gms<br>D. None of these |
| 11 | The body oscillates due to _____ accelerates and overshoots the rest position due to _____: | A. Applied force , inertia<br>B. Restoring force, friction<br>C. Frictional force, inertia<br>D. Restoring force, inertia |
| 12 | When a body is vibrating, the displacement from mean position: | A. Increases with time<br>B. Decreases with time<br>C. Changes with time<br>D. None of these |
| 13 | The restoring force is _____ amd opposite to the applied force within _____: | A. Equal, elastic limit<br>B. Different, the walls of the laboratory<br>C. Different, elastic limit<br>D. None of these |
| 14 | If a given spring of spring constant k is cut into two indentical segments, the spring constant of each segment is: | A. k/2<br>B. 2 k<br>C. 4 k<br>D. None of these |
| 15 | The S.I unit of frequency is | A. Vibrations s<sup>-2</sup><br>B. Ms<sup>-1</sup><br>C. Hertz<br>D. s<sup>-1</sup> |
| 16 | The restoring force is _____ and opposite to the applied force within _____,: | A. Equal, elastic limit<br>B. Different, the walls of the laboratory<br>C. Different, elastic limit<br>D. None of these |
| 17 | The SI unit of spring constant is identical with that of: | A. Force<br>B. Surface tension<br>C. Pressure<br>D. Loudness |
| 18 | An object undergoes SHM. Its maximum equilibrium positions: | A. Maximum<br>B. Half of its maximum value<br>C. Zero<br>D. None |
| 19 | Amplitude in SHM is equivalent to _____ in circular motion | A. Diameter<br>B. Radius<br>C. Circumference<br>D. None of these |
| 20 | An oscillating body oscillates due to: | A. Applied force<br>B. Restoring force<br>C. Frictional force<br>D. None of these |