# ECAT Physics Chapter 7 Oscillations

| Sr | Questions | Answers Choice |
|---|---|---|
| 1 | The maximum distance of body from mean position when body is executing SHM is called | A. Time period<br>B. Displacement<br>C. Amplitude<br>D. Frequency |
| 2 | An object undergoes SHM. Its maximum equilibrium positions: | A. Maximum<br>B. Half of its maximum value<br>C. Zero<br>D. None |
| 3 | Acceleration of body executing SHM is always directed towards | A. Extreme position<br>B. Mean position<br>C. Along the direction of motion<br>D. None |
| 4 | If a force of 0.05 N produces an elongation of 20 mm in a string, then its spring constant will be: | A. 250 N m<sup>-1</sup><br>B. 25 N m<sup>-1</sup><br>C. 2.5 N m<sup>-1</sup><br>D. None of these |
| 5 | 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 |
| 6 | If mass of 10 gm is suspended from a spring of K=0.8 $Nm^{-1}$then the extension will be: | A. 10 cm<br>B. 1 m<br>C. 10 mn<br>D. None of these |
| 7 | A body with frequency would complete one vibration in: | A. f seconds<br>B. 1/f seconds<br>C. 1 second<br>D. f<sup>2</sup>second |
| 8 | A particle is moving along a circular path with uniform speed. Its projection will execute ___along the _____ of the circle: | A. Circular motion, circumference<br>B. Vibratory, chord<br>C. SHM, diameter<br>D. SHM, circumference |
| 9 | 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: | A. 4 gms<br>B. 0.4 gm<br>C. 40 gms<br>D. None of these |
| 10 | 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 |
| 11 | The string of a simple pendulum should be: | A. Heavy<br>B. Extensible<br>C. In-extensible<br>D. None of these |
| 12 | Amplitude in SHM is equivalent to_____ in circular motion: | A. Diameter<br>B. Radius<br>C. Circumference<br>D. None of these |
| 13 | Which of the following forces is responsible for SHM | A. Applied force<br>B. Restoring force<br>C. Fractional force<br>D. Elastic force |
| 14 | 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 |
| 15 | | A. P.E remains conserved<br>B. Average K.E remain constant |

| | | |
|---|---|---|
| 15 | In vibrational motion(SHM) | C. Neither P.E nor K.E remains constant<br>D. Total energy remains constant |
| 16 | If a force of 0.05 N produces an elongation of 20 mm in string, then its spring constant will be: | A. 250 N m<sup>-1</sup><br>B. 25 N m<sup>-1</sup><br>C. 2.5 N m<sup>-1</sup><br>D. None of these |
| 17 | To and from motion of a body about its mean position is known as: | A. Translatory motion<br>B. Vibratory motion<br>C. Rotatory motion<br>D. None of these |
| 18 | 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 |
| 19 | A body with frequency of would complete one vibration in: | A. f seconds<br>B. 1/f seconds<br>C. 1 second<br>D. f<sup>2</sup>second |
| 20 | The number of vibration in two seconds can be expressed as _____ of frequency of vibration is f: | A. f<br>B. 2 f<br>C. 3 f<br>D. 1/2 f |