PPSC Physics Chapter 1 MECHANICS

Sr	Questions	Answers Choice
1	Length of second pendulum is	A. 98 cm B. 99 cm C. 99.2 cm D. 100 cm
2	A particle performs SHM of amplitude 0.020 and frequency 2.5 Hz. What is its maximum speed.	A. 0.050 m s-1 B. 0.125 m s-1 C. 0.314 m s-1 D. 0.75 m s-1
3	An object at the end of a spring oscillates with SHM of angular frequency 2 rad s-1 What is the period of oscillation.	A. 0.32 s B. 0.50 s C. 0.80 s D. 3.1 s
4	A particle executing simple harmonic oscillations of frequency 100 Hz has an amplitude of 0.1 cm The velocity amplitude of the particleis.	A. 20 micro cm s-1 B. 10 micro cm s-1 C. 20 cm s-1 D. 19 cm s-1
5	Oscillatory motion is always under	A. An applied force B. Restoring force and inertia C. A periodic force D. A gravitational force
6	Resonance phenomenon in a vibrating body	A. May increase the amplitude B. May decrease the amplitude C. May not affected the amplitude D. All of the above
7	The wave form of SHM is a	A. Sine wave B. Cosine wave C. Square wave D. Electromagnetic wave
8	Angular simple harmonic motion is.	A. Periodic rectilinear motion B. Independent of any applied torque C. Periodic rotational motion D. Never defined
9	A body of mass 2 kg attached to a spring is pulled to a distance of 4 cm What will be the value of spring constant K.	A. 490 N m-1 B. 980 N m-1 C. 1260 N m-1 D. 1960- N m-1
10	In the case of forced oscillations frequency of oscillation is.	A. The natural damped frequency B. The natural undamped frequency C. The frequency of the external periodic force D. Some other frequency
11	Two simple pendulums of the same length but having different masses	A. Have different frequencies B. Will have period proportional to their masses C. Will have periods independent of their length D. Have the same period
12	In an Isolated system , total energy of the vibrating's mass and spring is	A. Low B. High C. Constant D. Variable
13	tuning a radio set is an example of.	A. Musical resonance B. Electrical resonance C. Mechanical resonance D. Damping
14	The process where by energy is dissipated from the oscillating system is called.	A. Resonance B. Damping C. Forced oscillation D. Free oscillation
		A. Elasticity

15	Which of the following is not essential for the free oscillations of a mass attached to a spring.	B. Gravity C. Inertia D. Restoring force
16	The circular motion of a particles with constant speed is.	A. Periodic and SHM B. Periodic but not SHM C. SHM and not periodic D. Neither periodic nor SHM
17	The total energy of a body executing SHM is directly proportional to	A. The amplitude B. The square of the amplitude C. Square root of the amplitude D. Reciprocal of the amplitude
18	The amplitude of a vibrating body placed in a resistive medium.	A. Increases exponentially with time B. Decreases exponentially with time C. Remains constant with time D. Cannot be observed
19	A body of mass 1 kg hanging with a spring of spring constant 60 N m-1 is rotation in a horizontal circle The values of angular frequency will be.	A. 80 .94 Hz B. 89. 4 Hz C. 98. 4 Hz D. 108 . 6 Hz
20	A body attached to a spring is pulled to a distance of 20 cm If the value of spring constant is 48 N m-1, the amount of force applied will be.	A. 4.8 N B. 9.6 N C. 96 N D. 192 N