Q.1

Answer :-

$l = 1\ m, T = 2.01\ s$

$g = ?$

$T = 2\pi\sqrt{(1/g)}$

$2.01 = 2\pi\sqrt{1/g}$

Q.2

Answer :

A concave mirror always produce real and inverted image of those objects that are placed beyond the principal focus.

Q 3:

Answer:-

A restoring force always pushes or pulls the object performing oscillatory motion towards the mean position. So, at the mean position of SHM, the restoring force will be zero.

Q. 4:-

Answer:-

Fix the object to be charged and on an insulated stand. Bring a positively charged rod near the insulated object. The rod will attract negative charges toward it and repel positive charges away.

Q.5 :-

Answer :-

No, wavelength does not increase with and increase in the frequency of waves because frequency depends upon the source that produce waves per second. The wavelength of the wave depend on the magnitude of vibrating particles.

Q.6 :-

Answer :-

The current in each wire generate a magnetic field around each wire. On the other side of the wire the field is strong. So a force is exerted toward weaker region hence they attract each other.

Q.7

Answer:-

Conductors:-

*) They are good conductor of electricty and offer less resistance
*) They have larger number of electrons
*) Metal like silver are good conductors.

Insulators:-

*) Current cannot flow in it.
*) It has good resistance
*) There are no free electrons
*) Example are glass and wood.