DELHI PUBLIC SCHOOL NEWTOWN
SESSION: 2020-2021
FINAL TERM- ONLINE(POLLING) EXAMINATION

CLASS: IX **FULL MARKS: 30**
SUBJECT: PHYSICS **TIME: 30 MINUTES**

POLLING 1

1. **The restoring force exerted by a spring (1)**
   - **acts opposite to the displacement of its free end**
   - **is a non contact force**
   - **is independent of magnitude of displacement of free end**
   - **cancels out the applied force on free end**

2. **It takes 0.2s for the pendulum bob to move from mean position to one end. The time period of the pendulum is (1)**
   - **0.4s**
   - **1.2s**
   - **0.6s**
   - **0.8s**

3. **The length of a simple pendulum is made one-fourth, then its time period becomes (1)**
   - **Four times**
   - **One-fourth**
   - **half**
   - **double**

4. **A solid of density 4000 kg/m^3 weighs 0.4kgf in air. It is completely inside water of density1000kg/m^3. It's weight in water will be (2)**
   - **0.1kgf**
   - **0.16kgf**
   - **0.3kgf**
   - **0.5kgf**

5. **The R.D. of a body of weight 1.5 kgf is 3. It weighs 0.9kgf inside a liquid. The density of the liquid is (2)**
   - **2700kg/m^3**
   - **900 kg/m^3**
   - **1800kg/m^3**
   - **1200kg/m^3**

6. **A galvanometer is a device to (1)**
   - **Measure weak current**
   - **Measure strong and weak current**
   - **Connect parallel across the circuit**
   - **None of the above**

7. **Which of the following is not a social initiative for efficient use of energy resources?**
   - **Eco club activities**
   - **Imposing tax on sophisticated technologies**
   - **Collaboration with NGO's**
   - **Spreading awareness through mass-media (1)**

8. **A compass needle placed at neutral point (1)**
   - **Points to Geographic N-S direction**
   - **Will be resting with its axis parallel to N-S pole**
   - **Comes to rest in any arbitrary direction**
   - **Won't come to rest as net magnetic field is zero**

POLLING 2

1. **If the separation between two masses is reduced to half, the magnitude of gravitational force (1)**
   - **Remain unaltered**
   - **Becomes twice its previous value**
   - **Is four times the previous value**
   - **Reduces to four times the previous value**

2. **If a force F acts on a 2kg mass initially at rest for 3s producing a velocity 15m/s, the value of F is (2)**
   - **10N**
   - **22.5N**
   - **15N**
   - **11.25N**

3. **When a pendulum clock is inside a mine (1)**
   - **Oscillations are faster**
   - **Oscillations increase first then decrease**
   - **Clock goes slow**
   - **Time period is unaltered**

4. **A solid weighs 32gf in air and 28.8gf in water. The volume of the body is (1)**
   - **$3.02cm^3$**
   - **$3.2cm^3$**
   - **$2.88\ cm^3$**

- **$1.56cm^3$**

5. **The distance between wave crest and its adjoining trough is (1)**
   - **Wavelength of the wave**
   - **Wave velocity**
   - **Half the wavelength of the wave**
   - **Half the wave velocity**

6. **A charge 9.6C flowing through a conductor in 3s has is (2)**
   - **6×10^{19} electrons associated with it**
   - **6×10^{18} electrons associated with it**
   - **3×10^{19} electrons associated with it**
   - **2×10^{19} electrons associated with it**

7. **The wire used as a standard resistor is generally made up of (1)**
   - **copper**
   - **manganin**
   - **lead-tin alloy**
   - **none of the above**

8. **Which one of the following statements is incorrect? (1)**
   - **A hot body has more internal energy than an identical cold body**
   - **Liquids expand more than solids**
   - **Temperature alone indicates the quantity of heat energy contained in a body**
   - **Two bodies with same quantity of heat can differ in their temperatures**

<u>POLLING 3</u>

1. **The derived unit of work is (1)**
   - **Kgm^2s^{-2}**
   - **$Kgm^{-1}s^{-2}$**
   - **$Kgms^{-2}$**
   - **Kgm^2s^{-1}**

2. **When a corridor train suddenly starts sliding doors of some compartments may open,**
   the reason is
   - **the frame and the door both pick up the direction of motion of the train due to inertia**
   - **the equilibrium gets disturbed for the door frame is not in contact with the floor**
   - **sudden motion disrupts shock absorbers and cause motion in the door**
   - **The frame in contact with floor moves ahead, door slides in opposite direction due to inertia (1)**

3. **The pressure P1 at a certain depth in river water and P2 at the same depth in sea water are related as (1)**
   - **P1 = P2 as pressure at same horizontal level is same**
   - **P1<P2**
   - **P2<P1**
   - **None of the above**

4. **A solid weighs 30 gf in air and 24 gf inside a liquid of R.D. 0.6. The volume of the body is (2)**
   - **6cc**
   - **4cc**
   - **5cc**
   - **10cc**

5. **The line joining the point of incidence to the centre of curvature of a mirror (1)**
   - **is normal to the principal axis of the mirror**
   - **is normal to the tangent drawn on the spherical surface at the point of incidence**
   - **lie perpendicular to the focal plane**
   - **is double the focal length of the mirror**

6. **If speed of sound at 0^oC be 330m/s, then at 20^oC the speed will be (1)**
   - **342.2m/s**
   - **342m/s**
   - **340m/s**
   - **345.25m/s**

7. **When it is required for current to pass momentarily through the circuit, it is advisable to use (1)**
   - **rheostat**
   - **galvanometer**
   - **simple voltaic cell**
   - **tapping key**

8. **For a body floating half submerged in a liquid (1)**
   - **The centre of buoyancy will coincide with centre of gravity**
   - **Apparent weight of the body won't be zero**
   - **Centre of gravity of the displaced liquid lies below the centre of gravity**
   - **It's difficult to locate centre of buoyancy as no weight loss occur**

9. **Which of the following statements is true about magnetic lines of force? (1)**

   - **Magnetic lines of force are always closed.**
   - **Magnetic lines of force always intersect each other.**
   - **Magnetic lines of force tend to crowd far away from the poles of the magnet**
   - **Magnetic lines of force do not pass through the vacuum.**