



NEW SPARK OLYMPIAD

1. What is the force that pushes or pulls objects?

- A) Magnetism
- B) Gravity
- C) Friction
- D) Energy

2. Which state of matter has a definite shape and volume?

- A) Solid
- B) Liquid
- C) Gas
- D) Plasma

3. What simple machine is a seesaw an example of?

- A) Pulley
- B) Lever
- C) Wheel and axle
- D) Inclined plane

****Class 4-6****

4. What is the unit of electrical current?

- A) Ohm
- B) Volt
- C) Ampere
- D) Watt

5. What type of energy is possessed by a moving object?

- A) Potential Energy
- B) Kinetic Energy
- C) Thermal Energy
- D) Chemical Energy

6. When a ball rolls down a hill, what force is mainly responsible for its motion?

- A) Friction
- B) Gravity
- C) Magnetism
- D) Air resistance

****Class 7-10****

7. According to Newton's First Law, an object in motion will stay in motion unless acted upon by:

- A) A force
- B) A friction

- C) A magnet
- D) An energy

8. What is the measure of the average kinetic energy of the particles in a substance?

- A) Heat
- B) Temperature
- C) Energy
- D) Pressure

9. Ohm's Law states that the current through a conductor is directly proportional to the:

- A) Voltage
- B) Resistance
- C) Power
- D) Temperature

10. What is the speed of light in a vacuum?

- A) 300,000 km/s
- B) 150,000 km/s
- C) 100,000 km/s
- D) 200,000 km/s

11. The frequency of a wave is measured in:

- A) Meters
- B) Seconds
- C) Hertz
- D) Joules

12. Which device converts mechanical energy into electrical energy?

- A) Transformer
- B) Generator
- C) Battery
- D) Resistor

13. What is the force that opposes the motion of an object through a fluid?

- A) Gravity
- B) Friction
- C) Drag
- D) Tension

14. What is the formula for calculating work done?

- A) $\text{Work} = \text{Force} \times \text{Distance}$
- B) $\text{Work} = \text{Mass} \times \text{Acceleration}$
- C) $\text{Work} = \text{Power} \times \text{Time}$
- D) $\text{Work} = \text{Voltage} \times \text{Current}$

15. What is the SI unit of force?

- A) Joule
- B) Watt
- C) Newton
- D) Pascal

16. Which of the following is a non-renewable source of energy?

- A) Solar
- B) Wind
- C) Coal
- D) Hydroelectric

17. What does a barometer measure?

- A) Temperature
- B) Pressure
- C) Humidity
- D) Speed

18. In a circuit, what does a capacitor do?

- A) Stores energy
- B) Measures current
- C) Converts voltage
- D) Provides resistance

19. What happens to the frequency of a wave as its wavelength increases?

- A) It increases
- B) It decreases
- C) It remains the same
- D) It becomes zero

20. What is the principle behind a lever?

- A) Conservation of energy
- B) Equal distribution of weight
- C) Rotation around a pivot
- D) Acceleration of motion
