

Name: _____						
Subject: Physics		Class: 9 <sup>th</sup>	Time: 80 minutes	Total Marks:	40	
Chapter No.1		MJDEXPERT.COM			Obtained marks	

**Note:** Please attempt any 10 short questions from Question 2. Also, attempt both parts (a and b) of Question 3. Cutting and removal of any content is strictly prohibited.

**Q.1:** Tick (✓) the correct answer.

- The number of significant figures in the value 0.00580 Km is:  
A) 2    B) 3    C) 5    D) 6
- 0.00002 grams is equivalent to how many micrograms?  
A) 2.0    B) 0.20    C) 20    D) 200
- The study of the Earth's internal structure is known as:  
A) Atomic Physics    B) Geophysics    C) Sound    D) Heat
- The amount of matter measured in terms of the number of particles is known as:  
A) Gram    B) Kilogram    C) Newton    D) Mole
- The most appropriate instrument to measure the internal diameter of a test tube is:  
A) Meter rule    B) Vernier Calipers    C) Measuring Tape    D) Screw Gauge
- The total number of base units in the SI system is:  
A) 3    B) 6    C) 7    D) 9
- The length of a standard meter rule is:  
A) 1 meter    B) 0.5 meter    C) 2 meters    D) None
- The least count of a Mechanical Stopwatch is:  
A) 0.1 s    B) 0.01 s    C) 0.001 s    D) 0.0001 s
- The smallest quantity among the following is:  
A) 0.01g    B) 2 mg    C) 0.00002g    D) None
- A measuring cylinder is primarily used to measure:  
A) Mass    B) Area    C) Volume    D) Level of a Liquid

**Q.2:** Answer any ten (10) of the following questions:

- How have SI units facilitated scientific progress?
- What are base quantities? List them.
- Compare derived units with base units.
- What are the differences between electronic and manual balances?
- What is physics and name two of its subfields.
- Convert the following values into scientific notation:
  - i. 210.0 grams
  - ii. 0.00580 kilometers
- Describe scientific notation and provide an example.
- Why is a micrometer screw gauge considered more precise than vernier calipers?
- How can you find the least count of a pair of vernier calipers?
- What are prefixes in measurement? Provide some examples.
- Outline the rules for determining significant figures in a measurement.
- Differentiate between physical sciences and biological sciences.

**Q.3:** Answer the following questions:

- Describe a stopwatch and explain how a digital stopwatch functions.
- Identify the significant figures in the following measurements:
  - i. 100.8 seconds
  - ii. 0.00580
  - iii. 210.0 grams