

Physics 9th - Chapter 1

Physical Quantities and Measurements

Final MCQs Q101-Q150

Questions and Anss Only

Q101. Which feature is essential for a quantity to be classified as physical?

Ans: A) It must be measurable

Q102. Which of the following is a non-physical quantity?

Ans: C) Affection

Q103. Which quantity is derived from length and time?

Ans: B) Speed

Q104. Density depends directly on which quantities?

Ans: A) Mass and volume

Q105. Measurement is the comparison of an unknown quantity with:

Ans: B) An accepted standard

Q106. Why did measurements based on hand spans cause confusion?

Ans: B) People have hands of different sizes

Q107. Which is the SI base unit of luminous intensity?

Ans: C) Candela

Q108. Which is the SI base unit of thermodynamic temperature?

Ans: B) Kelvin

Q109. Which unit can be resolved into base units?

Ans: D) Pascal

Q110. The SI unit of area is:

Ans: B) m^2

Q111. The SI unit of volume is:

Ans: C) m^3

Q112. Which prefix has the symbol M?

Ans: C) Mega

Q113. Which prefix has the symbol micro (μ) and represents:

Ans: B) 10^{-6}

Q114. 3.5 km is equal to:

Ans: C) 3500 m

Q115. 0.006 m is equal to:

Ans: B) 6 mm

Q116. 7.2×10^5 written in ordinary notation is:

Ans: C) 720000

Q117. 0.00081 in scientific notation is:

Ans: A) 8.1×10^{-4}

Q118. The result of $(2 \times 10^3)(4 \times 10^2)$ is:

Ans: A) 8×10^5

Q119. The result of $(8 \times 10^6)/(2 \times 10^2)$ is:

Ans: B) 4×10^4

Q120. Which way of writing a force value follows SI rules?

Ans: C) 10 N

Q121. Which compound prefix is not allowed in SI?

Ans: C) milli-microsecond

Q122. Which instrument is most suitable for measuring the length of a classroom?

Ans: C) Measuring tape

Q123. A ruler reading viewed from point A instead of directly above point B will most likely contain:

Ans: B) Parallax error

Q124. Ten Vernier divisions occupy 9 mm. The length of one Vernier division is:

Ans: B) 0.9 mm

Q125. If one main-scale division is 1 mm and one Vernier division is 0.9 mm, the least count is:

Ans: C) 0.1 mm

Q126. Which jaws of Vernier callipers measure the external diameter of a sphere?

Ans: B) Outside jaws

Q127. A Vernier main-scale reading is 2.5 cm and the coinciding division is 7. If least count is 0.01 cm, the reading is:

Ans: A) 2.57 cm

Q128. A positive zero error in Vernier callipers makes the observed reading:

Ans: B) Greater than the true value

Q129. Which instrument is best for measuring the diameter of a thin wire?

Ans: C) Micrometer screw gauge

Q130. The main scale of a typical micrometer is marked in intervals of:

Ans: C) 0.5 mm

Q131. A micrometer with 1 mm pitch and 100 circular divisions has least count:

Ans: C) 0.01 mm

Q132. If a micrometer's circular-scale zero is below the reference line when closed, its zero error is:

Ans: A) Positive and subtracted

Q133. Why is the thickness of 100 paper sheets measured together?

Ans: B) To obtain a measurable total and reduce uncertainty per sheet

Q134. Which balance can measure mass of the order of 0.1 mg?

Ans: C) Digital electronic balance

Q135. In a physical balance, the object is normally placed on the:

Ans: B) Left pan

Q136. Standard masses should be handled with forceps mainly to:

Ans: B) Avoid contamination and changes in mass

Q137. A digital stopwatch that reads hundredths of a second has least count:

Ans: C) 0.01 s

Q138. Which instrument directly measures the duration of a laboratory event?

Ans: B) Stopwatch

Q139. The surface of mercury in a measuring cylinder is generally:

Ans: B) Convex

Q140. A liquid volume changes from 30 mL to 52 mL after immersion of a solid. The solid's volume is:

Ans: A) 22 cm³

Q141. Which method is suitable when a solid cannot fit inside a measuring cylinder?

Ans: B) Overflow-can method

Q142. In the overflow-can method, the volume of displaced water is equal to the:

Ans: C) Volume of the immersed body

Q143. Reaction time when starting a stopwatch is mainly a source of:

Ans: A) Human error

Q144. A poorly calibrated balance mainly produces:

Ans: B) Systematic error

Q145. Sudden changes in room temperature may cause:

Ans: B) Random error

Q146. The maximum conventional uncertainty of a metre rule with 1 mm least count is:

Ans: B) ± 0.5 mm

Q147. Which digit in a measured value is called the doubtful digit?

Ans: B) The last reliably estimated digit

Q148. How many significant figures are in 0.00450?

Ans: B) 3

Q149. How many significant figures are in 7.08?

Ans: B) 3

Q150. Repeated readings are close to one another but far from the accepted value. They are:

Ans: B) Precise but not accurate