

## Chapter # 1

### Multiple Choice Questions

### PHYSICAL QUANTITIES AND MEASUREMENTS

**Q. 1 Tick the correct answer. Also, fill up the Bubble Sheet.**

1) One Cubic meter is equal to:

A. 100 liters	B. 1000 liters <input checked="" type="checkbox"/>
C. 10 liters	D. $10^6$ liters

2) The number of base unit in SI is/are:

A. 3	B. 6
C. 7 <input checked="" type="checkbox"/>	D. 9

3) The basic quantity is:

A. Mass <input checked="" type="checkbox"/>	B. Volume
C. Torque	D. Momentum

4) The study of internal structure of the Earth is called:

A. Atomic Physics	B. Geo Physics <input checked="" type="checkbox"/>
C. Sound	D. Heat

5) Amount of a substance in terms of number is measured in:

A. Gram	B. Kilogram
C. Newton	D. Mole <input checked="" type="checkbox"/>

6) Which is not a derived unit:

A. Pascal	B. Kilogram <input checked="" type="checkbox"/>
C. Newton	D. Watt

7) Which is the smallest quantity?

A. 0.01 g	B. 2 mg
C. 100 $\mu$ g	D. 5000 ng <input checked="" type="checkbox"/>

8) A measuring cylinder is used to measure:

A. Mass	B. Area
C. Volume <input checked="" type="checkbox"/>	D. Level of liquid

9) One micro meter is equal to:

A. $10^9$ m	B. $10^6$ m
C. $10^3$ m	D. $10^{-6}$ m <input checked="" type="checkbox"/>

10) Least count of meter rod is:

A. 1mm <input checked="" type="checkbox"/>	B. 0.1mm
C. 0.01mm	D. 1cm

11) Which instrument is most suitable to measure the internal diameter of a test tube?

A. Meter rod	B. Vernier Caliper <input checked="" type="checkbox"/>
C. Measuring Scale	D. Screw Gauge

12) Least count of Vernier Caliper is:

A. 0.01mm	B. 0.01cm <input checked="" type="checkbox"/>
C. 1m	D. 1cm

13) The number of significant figures in 0.00580 Km is:

A. 1	B. 2
C. 3 <input checked="" type="checkbox"/>	D. 4

14) 0.027 has significant digits:

A. 2 <input checked="" type="checkbox"/>	B. 1
C. 3	D. 4

15) The study of matter, energy and their interaction is called:

A. Astronomy	B. Chemistry
C. Physics <input checked="" type="checkbox"/>	D. Natural philosophy

16) The physical aspects of light, its properties, and working is studied under:

A. Atomic physics	B. Optics <input checked="" type="checkbox"/>
C. Thermodynamic	D. Plasma physics

17) The base quantity is:

A. Length <input checked="" type="checkbox"/>	B. Force
C. Speed	D. Acceleration

18) The SI unit of mass is:

A. Gram	B. Kilogram <input checked="" type="checkbox"/>
C. Milligram	D. Centigram

19) Which one is a derived unit?

A. Joule <input checked="" type="checkbox"/>	B. Second
C. Mole	D. Kelvin

20) One Nano =?

A. $10^{-18}$	B. $10^{-15}$
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C.  $10^{-12}$

D.  $10^{-9}$  ☒

21) A meter rule can measure accurately upto:

A. 1mm ☒

B. 0.01mm

C. 0.01mm

D. 1cm

22) The least count of a screw gauge is:

A. 1 cm

B. 0.001 m

C. 0.01 mm ☒

D. 1 mm

23) The mass of body is measured with the help of:

A. Spring Balance

B. Stop Watch

C. Measuring cylinder

D. Physical Balance ☒

24) The number of significant figures in 0.03 is:

A. One ☒

B. Two

C. Three

D. None of these

25) 1.35 is rounded to:

A. 1.4 ☒

B. 1.5

C. 1.45

D. 1.3

26) Which one of the following units is not derived unit:

A. Pascal

B. Kilogram ☒

C. Newton

D. Mole

27) An interval of  $200\mu\text{s}$  is equivalent to:

A. 0.2s

B. 0.02s

C.  $2 \times 10^{-4}\text{s}$  ☒

D.  $2 \times 10^{-6}\text{s}$

28) A student noted the thickness of glass sheet using a screw gauge. On the main scale, it read 3 divisions while 8<sup>th</sup> divisions on the circular scale coincides with index line. Its thickness is:

A. 3.8cm

B. 3.08mm ☒

C. 3.8mm

D. 3.08m

29) Significant figures in an expression are:

A. All the digits

B. All the accurately known digits ☒

C. All the accurately known digits and the first doubtful digit

D. All the accurately known and all the doubtful digits

30) The word "Science" is derived from Latin word:

A. Scientist

B. Scientia ☒

C. Scient

D. Scienta

31) The study of isolated nuclei of an atom is called:

A. Plasma Physics	B. Astrophysics
C. Nuclear Physics <input checked="" type="checkbox"/>	D. Biophysics

32) Much of the universe is made up of:

A. Solid	B. Liquid
C. Plasma <input checked="" type="checkbox"/>	D. All of these

33) The international system of units is abbreviated as:

A. IS	B. SI <input checked="" type="checkbox"/>
C. Both A & B	D. None of these

34) Least count of digital stop watch is:

A. 1 second	B. 1 minute
C. 0.1 second	D. 0.01 second <input checked="" type="checkbox"/>

35) Andromeda is one of the billions of:

A. Stars	B. Universe
C. Galaxies <input checked="" type="checkbox"/>	D. Planets

36) A physical balance is used to measure:

A. Weight	B. Volume
C. Length	D. Mass <input checked="" type="checkbox"/>

37) Which one of the following is not a base quantity?

A. Temperature	B. Electric charge <input checked="" type="checkbox"/>
C. Electric current	D. Amount of substance

38) The terms used internationally for multiples and sub-multiples are called:

A. Science notation	B. Suffixes
C. Prefixes <input checked="" type="checkbox"/>	D. None of these

39) One Femto is equal to:

A. $10^{-9}$	B. $10^{-12}$
C. $10^{-15}$ <input checked="" type="checkbox"/>	D. $10^{-18}$

40) Accuracy greater than 1mm can be obtained by:

E. Meter rule	F. Measuring tape
A. Vernier Calipers <input checked="" type="checkbox"/>	B. All of above

41) The separation between two Vernier lines is:

A. 1 cm	B. 1 mm
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C. 0.9 mm <input checked="" type="checkbox"/>	D. All of these
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42) Pitch of screw gauge is:

A. 1 m	B. 1 mm <input checked="" type="checkbox"/>
C. 1 cm	D. 0.1 mm

43) If the zero error is negative then the value of zero error would be:

A. Added to measured value <input checked="" type="checkbox"/>	B. Subtracted from measure value
C. Divided to measured value	D. Multiple by measured value

44) The instrument used in laboratory to measure the mass of various object is:

A.	B.
C. Level balance	D. Beam balance
E. Physical balance <input checked="" type="checkbox"/>	F. All of these

45) The number of significant figures in 0.002070 are:

A. 2	B. 3
C. 4 <input checked="" type="checkbox"/>	D. 6

46) The number of derived units in SI system are:

A. 3	B. 5
C. 7	D. Multiple <input checked="" type="checkbox"/>

47) The radius of wire is 0.022 cm. the number of significant figures in the measurements are:

A. 1	B. 2 <input checked="" type="checkbox"/>
C. 3	D. 4

48) The zeros in between the digits are considered:

A. Significant <input checked="" type="checkbox"/>	B. Insignificant
C. Constant	D. None of these

49) In screw gauge, index line is present on:

A. Spindle	B. Thimble
C. Sleeve <input checked="" type="checkbox"/>	D. Ratchet

50) Zeros used for spacing the decimal point are:

A. Significant	B. Non-significant <input checked="" type="checkbox"/>
C. Doubtful	D. Hypothetical