



# UNIT

# 1

## PHYSICAL QUANTITIES AND MEASUREMENT

### MULTIPLE CHOICE QUESTIONS

1. The branch of science which deals with the study of properties of matter, energy and their mutual relationship is called:  
(a) Astronomy (b) Physics  
(c) Geology (d) Chemistry
2. The study of properties of the ionic state of matter is called  
(a) Plasma Physics (b) Astrophysics  
(c) Sound (d) Electromagnetism
3. The study of internal structure of earth and its activities like seismography is called:  
(GRW 2013, 2015)  
(a) Solid state physics (b) Heat  
(c) Mechanics (d) Geophysics
4. The study of the isolated nuclei of an atom is called:  
(a) Plasma Physics (b) Astrophysics  
(c) Nuclear Physics (d) Biophysics
5. Much of the universe is made up of:  
(a) Solid (b) Liquid  
(c) Plasma (d) All of above
6. The international system of units is abbreviated as:  
(a) IS (b) SI  
(c) Both a & b (d) none
7. The terms used internationally for multiples and submultiples of various units are known as:  
(a) Standard (b) Scientific notation  
(c) Prefixes (d) All of above
8. Meter rule can measure the length accurately up to:  
(a) 1 mm (b) 1 cm  
(c) 1 m (d) 1 km
9. ----- can accurately measure up to one tenth of a millimeter.  
(a) Meter rule (b) Vernier callipers  
(c) Screw Gauge (d) All
10. The SI unit of intensity of light is:  
(a) Newton (b) Kelvin  
(c) Kilogram (d) Candela
11. One meter is equal to:  
(a)  $10^3$  mm (b)  $10^{-3}$  km  
(c)  $10^2$  cm (d) All
12. Volume measuring scale has a vertical scale in:  
(a) Milliliter (b)  $\text{cm}^3$   
(c) Both a & b (d) none



13. One Femto is equal to:  
 (a)  $10^{15}$  (b)  $10^{-15}$   
 (c)  $10^{-9}$  (d)  $10^{-12}$
14. The least count of vernier calipers is: (LHR 2015)  
 (a) 0.1cm (b) 0.1mm  
 (c) 0.01cm (d) Both b & c
15. Total length of the vernier scale is:  
 (a) 1mm (b) 9 mm  
 (c) 10 mm (d) 1 cm
16. Number of divisions on the vernier scale are:  
 (a) 1 (b) 9  
 (c) 10 (d) 100
17. Length of the smallest division on main scale of the vernier calipers is:  
 (a) 1 cm (b) 1 mm  
 (c) 0.9 mm (d) All
18. Separation between division on the vernier scale of the vernier calipers is:  
 (a) 1 cm (b) 1 mm  
 (c) 0.9 mm (d) All
19. If zero of the vernier scale is on the right side of the zero of the main scale then it is known as ----- zero error:  
 (a) Positive (b) Negative  
 (c) No error (d) none of these
20. If zero of the vernier scale is on the left side of the zero of the main scale then it is known as ----- zero error:  
 (a) Positive (b) Negative  
 (c) None of these (d) No error
21. If zero of the vernier scale is on the right side of the zero of the main scale then zero error is to be:  
 (a) Added (b) Subtracted  
 (c) Multiplied (d) Divided
22. If zero of the vernier scale is on the left side of the zero of the main scale then zero error is to be:  
 (a) Added (b) Subtracted  
 (c) Multiplied (d) Divided
23. The least count of Screw Gauge is:  
 (a) 0.1 mm (b) 0.01 mm  
 (c) 0.1 cm (d) 0.01 cm
24. Total number of divisions on the circular scale of Screw Gauge are:  
 (a) 10 (b) 20  
 (c) 100 (d) 200
25. Pitch of the screw gauge is:  
 (a) 1m (b) 1 mm  
 (c) 1 cm (d) 0.1 mm
26. If the zero of the circular scale is above the horizontal line then the zero error will be:  
 (a) Positive (b) Negative  
 (c) None of these (d) No error
27. If the zero of the circular scale is below the horizontal line then the zero error will be:  
 (a) Positive (b) Negative  
 (c) None of these (d) No error
28. If the zero of the circular scale is above the horizontal line then the zero error is to be:  
 (a) Added (b) Subtracted  
 (c) Multiplied (d) Divided



29. If the zero of the circular scale is below the horizontal line then the zero error is to be:  
 (a) Added (b) Subtracted  
 (c) Multiplied (d) Divided
30. For scientific notation internationally accepted practice is that there should be ----- digit(s) before the decimal point.  
 (a) One (b) Two  
 (c) Three (d) No
31. In screw gauge, the distance moved forward or backward in one complete rotation of the circular scale is known as:  
 (a) Least count (b) Pitch  
 (c) Constant (d) None of above
32. A physical balance is used to measure:  
 (a) Weight (b) Volume  
 (c) Length (d) mass
33. Least count of mechanical stop watch is:  
 (a) 1 second (b) 1 minute  
 (c) 0.1 second (d) 0.01 second
34. Least count of digital stop watch is:  
 (a) 1 second (b) 1 minute  
 (c) 0.1 second (d) 0.01 second
35. In any measurement, the accurately known digits and first doubtful digit are known as:  
 (a) Prefixes (b) Significant figures  
 (c) Real numbers (d) All
36. The radius of wire is 0.022 cm. The number of significant figures in the measurements are:  
 (a) 1 (b) 2  
 (c) 3 (d) 4
37. The number of significant figures in 1.406 are:  
 (a) 4 (b) 3  
 (c) 2 (d) 1
38. The number of significant figures in  $1.40 \times 10^5$  are:  
 (a) 1 (b) 2  
 (c) 3 (d) 4
39. Vernier constant is also known as ----- of vernier calipers:  
 (a) Pitch (b) Proportionality constant  
 (c) Vernier value (d) Least count
40. The zeros in between the digits are considered:  
 (a) Significant (b) Insignificant  
 (c) Constant (d) None of above
41.  $10^6$  Stands for:  
 (a) Micro (b) Pico  
 (c) Nino (d) Mega
42.  $1\mu s$  is equal to:  
 (a)  $10^{-9}$  s (b)  $10^{-3}$  s  
 (c)  $10^{-6}$  s (d)  $10^{-12}$  s
43. To measure correctly the volume of the liquid, the eye must be kept on the ----- surface of meniscus:  
 (a) Lower (b) Upper  
 (c) Middle (d) All of above
44. SI unit of electric charge is  
 (a) Ampere (b) Kelvin  
 (c) Pascal (d) Coulomb



45.

The word science is derived from the Latin word

(a) Scientia

(b) Santia

(c) Scient

(d) None of these
46.

Least count of digital vernier callipers is

(a) 0.1mm

(b) 0.01 mm

(c) 0.001 mm

(d) 1 mm

ANSWER KEY									
Q.	Ans	Q.	Ans	Q.	Ans	Q.	Ans	Q.	Ans
1	b	11	d	21	b	31	b	41	d
2	a	12	c	22	a	32	d	42	c
3	d	13	b	23	b	33	c	43	a
4	c	14	d	24	c	34	d	44	d
5	c	15	b	25	b	35	b	45	a
6	b	16	c	26	b	36	b	46	b
7	c	17	b	27	a	37	a		
8	a	18	c	28	a	38	c		
9	b	19	a	29	b	39	d		
10	d	20	b	30	a	40	a		

FOR MORE

ESSAYS, NUMERICAL PROBLEMS, MCQs, SHORT Q, LONG Q, PAST PAPERS, ASSESSMENT SCHEMES

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