

1. Which one of the following is not a unit of British system of units?  
a) Foot                      b) Meter      c) Pound      d) Second
2. Which of the following is not a unit of time?  
a) Parsec      b) Year      c) Second      d) Hour
3. Which one of the following is not a derived unit?  
a) Joule      b) watt                      c) kilogram      d) newton
4. The solid angle subtended by the periphery of an area  $1 \text{ cm}^2$  at a point situated symmetrically at a distance of  $5 \text{ cm}$  from the area is  
a)  $2 \times 10^{-2}$  Steradian                      b)  $4 \times 10^{-2}$  Steradian  
c)  $6 \times 10^{-2}$  Steradian                      d)  $8 \times 10^{-2}$  Steradian
5. In which year SI system of units was developed and recommended by General Conference on Weights and measures?  
a) 1951      b) 1961      c) 1971      d) 1981
6. Which one of the following physical quantities is not a fundamental quantity?  
a) Luminous intensity                      b) Thermodynamic temperature  
c) Electric current                      d) Work
7. The SI unit of pressure gradient is  
a)  $\text{N m}^{-2}$       b)  $\text{N m}$                       c)  $\text{N m}^{-1}$       d)  $\text{N m}^{-3}$
8. The relative density of lead is 11.3. Its density in SI unit is  
a)  $1.13 \times 10^3$                       b)  $1.13 \times 10^2$       c)  $1.13 \times 10^4$       d) 11.3
9. Which of the following physical quantities has same unit in all the three system of units?  
a) Mass      b) Length      c) Time      d) None of these
10. Spot out the odd one.  
a) Calorie      b) kilowatt hour      c) joule      d) watt
11. Which of the following units is not a base unit?  
a) Meter      b) candela      c) ampere      d) Pascal
12. Which of the following system of units is not based on unit of mass, length and time?  
a) CGS                      b) FPS                      c) MKS                      d) SI
13. Match the Column I with Column II.

Column I		Column II	
Physical quantity		Name of unit	
A)	Conductance	p)	gray
B)	Magnetic induction	q)	lumen
C)	Absorbed dose	r)	tesla
D)	Luminous flux	s)	Siemens

- a) A – s, B – r, C – p, D – q
- b) A – p, B – q, C – r, D – s
- c) A – q, B – p, C – s, D – r
- d) A – r, B – s, C – p, D – q
14. In International System of units, there are seven base quantities whose units are defined. Which physical quantity has prefix with its unit?  
a) Mass                                      b) Thermodynamic temperature  
c) Luminous intensity                      d) Amount of substance
15. Which of the following is not the name of a physical quantity?  
a) Time      b) Impulse      c) Mass      d) Kilogram
16. The speed of sound in water is

- a)  $330 \text{ m s}^{-1}$                       b)  $630 \text{ m s}^{-1}$                       c)  $1450 \text{ m s}^{-1}$                       d)  $2250 \text{ m s}^{-1}$
17. Which one of the following statements is incorrect?  
 a) Direct and indirect methods are used for the measurement of physical quantities.  
 b) Scientific notation and the prefixes are used to simplify numerical computation.  
 c) A dimensionally correct equation need not be a correct equation.  
 d) The SI units is based on six base units.
18. The distance of the moon from the earth is about 60 times the radius of the earth. What will be diameter of the earth (approximately in degrees) as seen from the moon?  
 a)  $1^\circ$                       b)  $2^\circ$                       c)  $4^\circ$                       d)  $6^\circ$
19. Match the Column I with Column II.

Column I		Column II	
A)	Distance between earth and sun	p)	Micron
B)	Interatomic distance in a solid	q)	Fermi
C)	Size of nucleus	r)	Light year
D)	Wavelength of infrared laser	s)	Angstrom

- a) A – p, B – q, C – r, D – s                      b) A – r, B – s, C – q, D – p  
 c) A – q, B – p, C – s, D – r                      d) A – s, B – r, C – p, D – q
20. The Vernier scale of a travelling microscope has 50 divisions which coincide with 49 main scale divisions. If each main scale division is 0.5 mm, then the least count of the microscope is  
 a) 0.01 cm                      b) 0.5 mm                      c) 0.01 mm                      d) 0.5 cm
21. Light year is  
 a) Light emitted by the sun in one year.  
 b) The time taken by light to travel from sun to earth.  
 c) The distance travelled by light in free space in one year.  
 d) The time taken by earth to go once around the sun.
22. The sun's angular diameter is measured to be  $1920''$ . The distance of the sun from the earth is  $1.496 \times 10^{11} \text{ m}$ . What is the diameter of the sun?  
 a)  $1.39 \times 10^9 \text{ m}$                       b)  $1.39 \times 10^{10} \text{ m}$                       c)  $1.39 \times 10^{11} \text{ m}$                       d)  $1.39 \times 10^{12} \text{ m}$
23. The ratio of one micron to one nanometer is  
 a)  $10^3$                       b)  $10^{-3}$                       c)  $10^{-6}$                       d)  $10^{-9}$
24. Which of the following conversions is incorrect?  
 a) 1 curie =  $3.7 \times 10^{10} \text{ s}^{-1}$                       b) 1 barn =  $10^{-25} \text{ m}^2$   
 c) 1 quintal = 100 kg                      d) 1 litre =  $10^{-3} \text{ m}^3$
25. How many light years Alpha Centauri away from the Earth?  
 a) 1.29                      b) 2.29                      c) 3.29                      d) 4.29