

## EVERYDAY SCIENCE : PHYSICS -NO.2

Time: 30 minutes

Marks: 100

1. Which of the following is a derived unit ?  
A. Mass                      B. Length                      C. Time                      D. Velocity
2. Which part of the sun is visible during total solar eclipse  
A. corona                      B. chromosphere                      C. photosphere                      D. No part
3. The Father of electricity is :  
A. Kamerlingh Onnes    B. Issac Newton    C. Albert Einstein    D. Michael Faraday
4. One horse power is equal to ——— watts.  
A. 764                      B. 754                      C. 745                      D. 746
5. A man sitting in a train in motion is facing the engine. He tosses a coin up, the coin falls behind him. The train is  
A. moving forward with uniform speed    B. moving backward with uniform speed  
C. moving forward with acceleration    D. moving forward with deceleration
6. Speedometer of an automobile measures  
A. average velocity    B. acceleration    C. instantaneous speed  
D. instantaneous velocity
7. The SI unit of work is  
A. Joule                      B. Watt                      C. Calorie                      D. Ampere
8. The study of friction and lubricants is  
A. Astrophysics    B. Dynamics    C. Optics    D. Tribology
9. In long jump (distance is measured only horizontally) a person who jumps at an angle ——— to ground has greater probability of winning.  
A.  $45^0$                       B.  $90^0$                       C.  $30^0$                       D.  $60^0$
10. Who proposed atomic theory ?  
A. John Dalton    B. Neils Bohr    C. Chadwick    D. Rutherford
11. When ice melts, its volume  
A. increases    B. decreases    C. remains the same  
D. first decreases then increases
12. Three primary colours of light are  
A. Red, green, blue    B. Red, yellow, green    C. Red, yellow, blue    D. Green, blue, yellow
13. The gravitational pull exerted by the earth is maximum at the  
A. South pole    B. North pole    C. Antartic circle    D. Equator
14. Solar eclipse occurs on  
A. full moon day    B. new moon day    C. half moon day    D. none of these
15. The foul air we exhale in a room is  
A. cooler and hence lighter    B. warmer and hence heavier  
C. warmer and hence lighter    D. cooler and hence heavier
16. Factor which decides the climate of a place  
A. Latitudes    B. Distance from the sea    C. Rotation of the earth  
D. Longitude

17. Ozone layer above the earth is between  
A. 20 and 35 km    B. 60 and 80 km    C. 80 and 110 km    D. 75 and 100 km
18. The highest science award in India  
A. Bhabha award    B. C.V. Raman award    C. S.S. Bhatnagar award  
D. Chanakya award
19. Who invented MASER  
A. Charles H. Townes    B. Theodore Maiman    C. James Harrison  
D. Alexander Catlin
20. INSAT – 2C was launched from ——  
A. Thumba    B. Hanoi    C. Kourou Island    D. Ottawa
21. The power of an ordinary torch cell is  
A. 0.5 V    B. 2.5 V    C. 1.5 V    D. 1.1 V
22. Light year is the unit of  
A. time    B. speed    C. distance    D. year
23. The first known source of a magnet was discovered in  
A. Asia Minor (Turkey)    B. Iran    C. Gold Coast    D. Bombay high
24. In a Doctor's stethoscope, the sound is intensified because of  
A. Resonance of sound    B. Constructive interference  
C. Principle of super position of waves    D. Reflection of sound
25. In colder regions, the thermometer used to measure temperature is  
A. wet and dry bulb hygrometer    B. Mercury thermometer    C. Gas thermometer  
D. Alcohol thermometer
26. What type of energy does a compressed spring possess ?  
A. Kinetic    B. potential    C. thermal    D. magnetic
27. If the temperature of a patient is  $40^{\circ}\text{C}$ , his temperature on the Fahrenheit scale will be  
A.  $104^{\circ}\text{F}$     B.  $72^{\circ}\text{F}$     C.  $96^{\circ}\text{F}$     D.  $100^{\circ}\text{F}$
28. A simple microscope consists of ——  
A. concave lens    B. plano concave lens    C. convex lens    D. cylindrical lens
29. Short sightedness can be corrected by ——  
A. convex mirror    B. concave lens    C. plane mirror    D. concave lens
30. When temperature increases, the velocity of sound—  
A. increases    B. decreases    C. will not change  
D. increases and then decreases
31. Intensity of a sound is measured in ——  
A. Hertz    B. Decibel    C. miles/second  
D. periodicity and regularity
32. Loudness of sound depends upon its ——  
A. wave length    B. frequency    C. amplitude    D. overtones
33. Which of the following is most elastic ?  
A. Steel    B. Glass    C. Aluminium    D. Rubber
34. In a periodic table, the horizontal rows are called——  
A. periods    B. groups    C. series    D. none of the above

35. Photo electric effect was first explained by —  
A. Rutherford      B. J.J. Thomson      C. Bohr      D. Einstein
36. Henry Bequerel discovered ———  
A. field emission      B. natural radioactivity  
C. Artificial radioactivity      D.  $\alpha$ ,  $\beta$ , and  $\gamma$  - rays
37. Control rods used in nuclear reactors are made of ———  
A. stainless steel      B. graphite      C. cadmium      D. plutonium
38. 1 Quintal = ——— kilograms  
A. 100      B. 1000      C. 10000      D. 10
39. The weight of diamond is determined by an unit called ———  
A. Carat      B. Gram      C. Litre      D. Mohs
40. Under what condition does a lunar eclipse takes place?  
A. The earth comes between the sun and the moon  
B. The moon comes between the sun and the earth  
C. The sun comes between the earth and the moon  
D. The sun, moon and earth are in straight line in any order
41. ——— is called the twin planet earth  
A. Mars      B. Uranus      C. Mercury      D. Venus
42. Which of the following is uses as a heating element  
A. Silver      B. Copper      C. Nichrome      D. Tin
43. Dr. Abdul Kalam was awarded the 'Bharat Ratna' in 1997 for  
A. Missile Technology      B. Nuclear Research      C. War gallantry  
D. Food Technology
44. The technique used to transmit audio signals in television broadcast is  
A. Amplitude modulation      B. Frequency modulation  
C. Pulse code modulation      D. Time division multiplexing
45. Sunlight filtering through a tree often makes circular patches on the ground because  
A. the space through which light penetrates      B. due to polarization of light  
C. due to interference of light      D. due to diffraction phenomenon
46. Reflectors used in solar cookers are  
A. convex      B. concave      C. plane      D. cylindrical
47. Which one of the following element is seen abundantly in solar system ?  
A. Helium      B. Hydrogen      C. Oxygen      D. Nitrogen
48. The working principle of the ink filler is  
A. The pressure outside the bottle acts on the filler  
B. The expansion of the filler  
C. The cylindrical structure of the filler  
D. The atmospheric pressure acts on the surface on the ink
49. Dentist's mirror is a  
A. Cylindrical mirror      B. Plane mirror      C. Convex mirror      D. Concave mirror
50. A rainbow is formed by the ——— of light by water droplets  
A. dispersion      B. scattering      C. total internal reflection  
D. dispersion and total internal reflection.

51. National Science Day is observed on 28th February to commemorate
  - A. Bhabha's birthday
  - B. The day of declaration of Raman Effect
  - C. Launching of the first Indian Satellite Aryabhata
  - D. Successful launching of PSLV
52. Hypermetropia can be corrected by using —
  - A. concave lens
  - B. convex lens
  - C. plano concave lens
  - D. plano convex lens
53. When was the first Atomic Energy Commission set up in India ?
  - A. August 10, 1948
  - B. August 12, 1950
  - C. August 1, 1949
  - D. August 20, 1951
54. India conducted the first nuclear explosion in the year
  - A. May 18, 1974
  - B. May 11, 1998
  - C. May 13, 1998
  - D. May 12, 1988
55. Which of the following is the best conductor of electricity?
  - A. Cold water
  - B. Warm water
  - C. Saline water
  - D. Distilled water
56. Which sector in India uses coal in maximum quantity?
  - A. Railway
  - B. Thermal plants
  - C. Refineries
  - D. Transport
57. The density of water is maximum in
  - A. 0°C
  - B. 4°C
  - C. 25°C
  - D. 100°C
58. The farthest object in solar system is
  - A. Neptune
  - B. Pluto
  - C. Eris
  - D. Ceres
59. Liquified gas under a pressure of 58 atmospheres is
  - A. Water gas
  - B. Hard water
  - C. Dry ice
  - D. Soft water
60. The sun's heat and light energy reaches the earth by
  - A. conduction
  - B. Convection
  - C. reflection
  - D. radiation
61. Where is the National Physical Laboratory situated
  - A. Puna
  - B. NewDelhi
  - C. Culcutta
  - D. Bangalore
62. Which of the following is a common constituent of transistor ?
  - A. Silicon
  - B. Copper
  - C. Beryllium
  - D. Iron
63. When common salt is mixed with ice, the freezing point
  - A. is lowered
  - B. is raised
  - C. remains unaffected
  - D. is first lowered and then raised
64. As the train starts moving, a man sitting inside leans backwards because of
  - A. inertia of rest
  - B. inertia of motion
  - C. moment of inertia
  - D. conservation of mass
65. Water pipes burst in severe winter at hill stations because
  - A. they contract on cooling
  - B. water in the pipe contracts on freezing
  - C. water in the pipe expands on freezing
  - D. pipes expand on cooling
66. An aneroid barometer uses
  - A. mercury
  - B. alcohol
  - C. distilled water
  - D. doesn't use any liquid
67. The ink of the pen leaks out in an aeroplane because
  - A. atmospheric pressure increases
  - B. pressure of ink inside is more than the ambient pressure
  - C. high speed of aeroplane
  - D. temperature difference

68. Perspiration is maximum when temperature is
  - A. high and air is humid
  - B. high and air is dry
  - C. low and air is humid
  - D. low and air is dry
69. Sound travels fastest in
  - A. air
  - B. water
  - C. vacuum
  - D. steel
70. A periscope works by the principle of
  - A. diffraction
  - B. reflection and interference
  - C. reflection and refraction
  - D. refraction only
71. An air bubble in water shines because of the phenomenon of
  - A. reflection
  - B. refraction
  - C. diffraction
  - D. total internal reflection
72. The pitch of the voice of women is in general
  - A. higher than that of men
  - B. marginally lower than that of men
  - C. the same as that of men
  - D. Some times higher and sometimes lower than that of men
73. A noise level of 20 decibels would correspond to
  - A. ordinary conversation
  - B. whispering
  - C. Machine sound
  - D. Supersonic plane's sound
74. To detect the over speeding vehicles, police use
  - A. Diffraction of short radio waves
  - B. Refraction of short radio waves
  - C. Doppler effect of reflected short radio waves
  - D. Reflection and refraction of short radio waves
75. A choke is fitted along with fluorescent tubes. The choke coil,
  - A. steps up the line voltage
  - B. steps down the line voltage
  - C. reduces current in the circuit
  - D. vanishes the low frequency currents
76. The transmission of heat without any carrier in between is
  - A. conduction
  - B. convection
  - C. refraction
  - D. radiation
77. Atom bomb was discovered by
  - A. Edward Teller
  - B. Madam Curie
  - C. Baird
  - D. Otto Hahn
78. Which law of Newton defines inertial frames ?
  - A. First law
  - B. Second law
  - C. Third law
  - D. Both (A), (B) and (C)
79. From the point of view of wave motion, a ray can be defined as an imaginary line draw in the direction in which
  - A. the wave is travelling
  - B. the wave is reflected
  - C. the ray is refracted
  - D. Name of the above
80. A person can view his full-length image in a mirror that is at least ——— his height
  - A. one-fifth
  - B. one-fourth
  - C. one-third
  - D. half
81. The vacuum in a thermos bottle minimizes heat transfer by
  - A. Conduction
  - B. Convection
  - C. Radiation
  - D. Absorption
82. What is the colour of the black box kept in the cockpit of an aeroplane ?
  - A. Orange
  - B. Black
  - C. White
  - D. Red
83. With increase of humidity, the velocity of sound in air
  - A. decreases
  - B. increases
  - C. fluctuates irregularly
  - D. remains unaffected

84. With increase of height from the surface of the earth the value of 'g'  
A. increases      B. decreases      C. remains constant      D. fluctuates
85. A gyrostatic compass is used in  
A. aeroplanes      B. ships      C. submarines      D. All of the above
86. What is the unit of current ?  
A. watt      B. volt      C. Ampere      D. Coulomb
87. The net weight of LPG in a domestic gas cylinder supplied is  
A. 14.2 kg      B. 14 kg      C. 15.2 kg      D. 15 kg
88. The phenomenon of ————— has been used to test the planeness of surfaces and also to reduce reflecting power of the lens and the prism surfaces  
A. diffraction      B. interference      C. polarization      D. none of the above
89. A thermodynamic system is one which can be described in terms of  
A. temperature      B. volume      C. introphy      D. thermodynamic co-ordinate
90. The process by which solids directly change to gaseous state is  
A. Diffusion      B. condensation      C. Sublimation      D. Vapourisation
91. The technique in which 3-dimentional picture of an object can be obtained is  
A. LASER      B. Holography      C. Photography      D. Optical interferrometry
92. Which one of the following is used by the motorist to see the road behind him  
A. concave mirror      B. convex mirror      C. concave lens      D. convex lens
93. An astronaut on an earth satellite will observe the sky as  
A. deep red      B. sky blue      C. black      D. deep blue
94. The image formed on the retina of the human eye is  
A. imaginary and upright      B. imaginary and inverted  
C. real and upright      D. real and inverted
95. The lowest temperature is recorded  
A. at midnight      B. just after sun rise      C. just before sun rise  
D. between 4 pm and 5 pm
96. The energy possessed by the water collected in the reservoir of a dam  
A. Kinetic energy      B. Mechanical energy      C. Electric energy      D. Potential energy
97. The most important raw material for generation of power in India  
A. Uranium      B. Thorium      C. Radium      D. Coal
98. India's first tactical surface-to surface missile was —  
A. Agni      B. Trishul      C. Prithvi      D. Insat – IB
99. ISRO Satellite Centre is at  
A. Thiruvananthapuram      B. Bangalore      C. Sriharikota  
D. Trombay
100. An instrument which indicates altitude of a place along with corresponding pressure  
A. Anemometer      B. Barometer      C. Hygrometer      D. Altimeter

## Answers

1 D	2 A	3 D	4 D	5 C	6 C	7 A	8 D
9 A	10 A	11 B	12 A	13 D	14 B	15 C	16 A
17 A	18 C	19 A	20 C	21 C	22 C	23 A	24 D
25 D	26 B	27 A	28 C	29 B	30 A	31 B	32 C
33 B	34 A	35 D	36 B	37 C	38 A	39 A	40 A
41 D	42 C	43 A	44 B	45 D	46 B	47 B	48 D
49 D	50 D	51 B	52 B	53 A	54 A	55 C	56 B
57 B	58 C	59 C	60 D	61 B	62 A	63 A	64 A
65 C	66 D	67 B	68 A	69 D	70 C	71 D	72 A
73 B	74 C	75 A	76 D	77 D	78 A	79 A	80 D
81 B	82 B	83 B	84 B	85 D	86 C	87 A	88 B
89 D	90 C	91 B	92 B	93 C	94 D	95 C	96 D
97 D	98 C	99 B	100D				