

EVERYDAY SCIENCE : PHYSICS -NO.8

Time: 30 minutes

Marks: 100

1. A coin inside a bucket of water appears to be nearer than its actual depth in water. This due to....
A. diffraction B. dispersion C. polarisation D. refraction
2. The focal length of a lens is maximum for light.
A. Red B. Green C. Violet D. Yellow
3. If a green colour tie is seen in the red light, it appears :
A. red B. white C. green D. black
4. The path followed by a body thrown horizontally from the top of a tower is ——
A. straight line B. Circular C. Parabolic D. Elliptic
5. An air bubble in water acts as ——
A. concave lens B. convex lens C. biconvex lens D. cylindrical lens
6. An aeroplane rises because ——
A. of the upward action of air
B. the density of the air above the plane is less than that below it.
C. the pressure above its wings is less than the pressure below them
D. its nose points upwards.
7. A person presses the earth least, when he is ——
A. sitting B. standing C. running D. lying on the ground
8. Bats can fly in the dark because of
A. chipped wings B. Ultrasonics C. Infrasonics D. partial displacement of air
9. 1 kwh = J
A. 3×10^6 B. 3×10^8 C. 3.6×10^6 D. 3.6×10^8
10. The frequency of a.c mains is ——
A. 250 Hz B. 230 Hz C. 50 Hz D. 100 Hz
11. Copper is used in making electrical wires because mainly
A. It is easily available B. Corrosion resistant
C. Very cheap D. Contains large number of free electrons
12. A triode valve consists of how many electrodes?
A. one B. two C. four D. three
13. Germanium and silicon are pure.....
A. conductors B. insulators C. semi conductors D. alloys
14. All machines suffer a loss of efficiency due to ——
A. a lack of force B. a lack of distance C. Inertia D. friction
15. Thermal emission of electrons from the metal surface :
A. Phosphorescence B. fluorescence
C. Thermionic emission D. none of the above

16. One litre of cool air weighs heavier than one litre of hot air because of the ——
 A. increased number of collisions between the molecules
 B. increased number of molecules at high temperature
 C. greater energy of molecules at high temperature
 D. lower energy of molecules at high temperature
17. Two identical cars move with the same velocity V on a straight path. The relative velocity between them is minimum when they move along straight paths, ——
 A. in opposite directions
 B. at right angles to each other
 C. at 45° to each other
 D. in the same direction
18. Materials for rain - proof coats and tents owe their water proof properties due to :
 A. surface tension B. Viscosity C. Specific gravity D. elasticity
19. Radio activity was discovered by :
 A. Madam curie B. Ruther ford C. Einstein D. Henry Becquerel
20. α - particles are doubly ionised ——
 A. Helium atoms B. Hydrogen atom C. Nitrogen atoms D. Oxygen atom
21. While running over a horizontal level road, the man holds the umbrella in the vertical direction. If he stops, then in order to protect himself from the rain, he should hold it, ——
 A. still vertically B. inclined to the front C. inclined to the back D. at an angle of 45°
22. Atomic bomb is based on ——
 A. nuclear reaction B. nuclear fusion C. nuclear fission D. photo electric effect
23. Swimming pool reactor of India is :
 A. Apsara B. Kamini C. Polar reactor, Trombay
 D. Kalpakkam reactor
24. Transistor was invented by :
 A. Enrico fermi B. John Barden, William Shockley, Walter Brattain
 C. John.L. Hall & Theodor. W. Haensch D. J.J. Thomsun
25. Sand is thrown on tracks covered with snow to ——
 A. Reduce friction B. Increase friction C. Prolong life of tracks
 D. Raise the lead of tyres
26. are used for the determination of crystal structure.
 A. β - particles B. γ - rays C. X - rays D. α - particles
27. The master control facility of ISRO is in :
 A. Thumba B. Delhi C. Hasan D. Hyderabad
28. Conductivity of semi conductor at zero $0K$:
 A. 2 B. 0 C. 100 D. 50
29. The newly discovered super conductor :
 A. gallium B. arsenide C. selenium D. ceramic
30. Escape velocity of a rocket fired from the earth towards the moon is a velocity to get rid of the——
 A. Moon's gravitational pull B. Earth's gravitational pull
 C. Centripetal force due to the earth's rotation D. Pressure of the atmosphere

31. Combing hair sometimes produces a cricking sound because
A. of friction between comb and head B. Comb attracts the hair
C. Electric charge is produced by friction D. Of dyness of hair and comb.
32. Which among the following is a vector quantity?
A. mass B. distance C. time D. velocity
33. The unit of force is :
A. Newton B. Ampere C. Calorie D. Decibel
34. Hilly roads are banked to ————
A. increase friction B. decrease friction
C. provide centupetal force for safe turning D. provide the centrifugal force to the vehicles
35. The rate of doing work by a body is called its
A. power B. energy C. momentum D. impulse
36. The value of universal gravitation constant:
A. 6.67×10^{-12} Newton m^2/kg^2 B. 9.8 m/s^2 C. 3.8 m/s^2
D. 6.7×10^{-17} Newton m^2/kg^2
37. Speed of sound is minimum in
A. gases B. solids C. liquid D. steel
38. is used to find the rate of flow of liquid in a tube.
A. Ameter B. Pyrometer C. Venturimeter D. Hygrometer
39. On kelvin scale, the freezing point of water is.....
A. 273 k B. 373 k C. 100 k D. 37 k
40. The natural satellite of the earth is
A. The Sun B. The Moon C. Cirus D. Venus
41. Boiling point of water at normal atmosphere pressure is ————
A. 273°C B. 373°C C. 100°C D. 0°C
42. If ice or polar caps melts, then duration of day shall ————
A. Increase B. Decrease C. Remain the same
D. Many increase or decrease
43. Primary and secondary colours which when mixed produce white colour are called ... colours
A. complementary colours B. teritary colours
C. derived colours D. all the above
44. Light waves are waves
A. longitudinal B. transverse C. stationary D. both A. & B.
45. One microfarad = farad.
A. 10^{-5} B. 10^5 C. 10^6 D. 10^{-6}
46. When a body is taken from the earth to the moon,
A. Its weight increases B. Its weight decreases
C. Its weight unchanged D. It becomes completely weightless
47. β -rays consist of
A. protons B. positrons C. electrons D. neutrons
48. Energy from the sun reaches us by the method of
A. Convection B. Radiation C. Conduction D. Scattering

49. A rod kept in the bucket of water appears to be bent because of ———
A. refraction B. diffraction C. dispersion D. polarisation
50. A pendulum of a clock takes less than a second for one swing. It means that the clock is——
A. running fast B. running slow C. giving correct time D. losing time
51. Kilohertz is a unit of ———
A. wave length B. Energy C. Electric field intensity D. frequency
52. A drop of oil is placed on the surface of water. Which of the following statement is correct
A. It will remain on it as a sphere B. It will spread as a thin layer
C. It will be partly as spherical droplet and partly as thin film
D. It will float as distorted drop on the water surface
53. Materials for rain-proof coats and tents owe their water-proof properties to
A. Surface tension B. Viscosity C. Specific gravity D. Elasticity
54. Choose the scalar quantity from the following physical quantities
A. Force B. Velocity C. Acceleration D. Speed
55. A boat gets most easily rocked if it is
A. Broad and heavy B. Broad and light C. Narrow and light D. Narrow and heavy
56. A good lubricant should have
A. High viscosity B. Low viscosity C. Moderate viscosity D. High density
57. Detergents dissolved in water help in cleaning clothes by
A. Increasing the temperature of water B. Reacting chemically with dirt
C. Reducing the surface tension of water D. Dissolving dirt
58. When a ship floats on water
A. It displaces no water
B. The mass of water displaced is more than the mass of the ship
C. The mass of water displaced is equal to the mass of the ship
D. The mass of water displaced is less than the mass of the ship
59. Oil rises up through the wick in a lamp. The principle involves
A. The diffusion of oil through the wick B. The liquid state of oil
C. Capillary action phenomenon D. Volatility of oil
60. Water has maximum density at
A. 0°C B. 4°C C. 4K D. 4.8°C
61. A lactometer is used to
A. Find out the specific gravity of liquids B. Measure the volumes of liquids
C. Test the purity of milk D. Determine the strength of acid in car batteries
62. Escape velocity from the earth is 11.2 km/sec, if rocket is fired vertically upwards. If the rocket is fired at an angle of 45° the escape velocity will be ———
A. still 11.2 km/s B. Greater than 11.2 km/sec
C. Less than 11.2 km/sec D. Proportional to the wind speed
63. Solar energy is preferred to other sources of energy because
A. It's source is practically inexhaustible B. It is the cheapest form of energy
C. It does not cause pollution D. All of the above
64. Which of the following is a good conductor of heat and electricity ?
A. Diamond B. Anthracite C. Granite D. Graphite
65. In an electric kettle water becomes hot by
A. Conduction B. Radiation C. Moving particles D. Convection

66. With the rise at temperature, the velocity of sound ———
 A. decreases B. remains the same C. increases
 D. is independent of temperature
67. Tea will cool most easily in a
 A. Metal cup B. Procelain cup C. Glass cup D. Clay cup
68. If water in a lake were to behave like other liquids, then in extremely cold weather it would freeze
 A. From top to bottom B. From bottom to top
 C. Simultaneously throughout the depth
 D. First on the surface, bottom and sides and then in the interior
69. The shortest wave length is for ———
 A. γ - rays B. x - rays C. Ultraviolet rays D. Microwaves
70. Greenhouse effect keeps the earth surface ———
 A. cold in night B. dusty and cold C. warm in night D. moist in night
71. A wall clock loses 2 minutes a day in summer. To rectify this, we
 A. Have to increase the length of the pendulum
 B. Need not change the length of the pendulum
 C. Have to change the bob of the pendulum
 D. Have to decrease the length of the pendulum
72. On heating a circular metallic disc with a circular hole the centre the diameter of the hole will
 A. Decrease B. Remain the same C. Increase D. First increase, then decreases
73. Scalding with steam is more severe than scalding by boiling water because
 A. Steam can penetrate the skin B. Steam is at a higher temperature
 C. Steam contains more energy than boiling water
 D. Steam is at a higher pressure
74. We get energy directly from
 A. The sun B. Ocean C. Space D. Atmosphere
75. One feels cold after a dip in sea water due to
 A. Convection currents B. The deposition of salt on the body
 C. The evaporation of water on the body
 D. The difference in temperatures between land and sea
76. Bridges are declared unfit after long use due to the phenomenon of ———
 A. Elastic fatigue B. Plasticity C. Corrosion D. Design becomes old
77. The place in India where peaceful nuclear explosion experiment was carried out
 A. Bikaner B. Ganganagar C. Jaisalmer D. Pokharan
78. What is the use of a Rectifier ?
 A. To measure the strength of electric current B. To carryout complex calculation
 C. To change the ac current into dc D. To produce electric current
79. ——— is useful to convert mechanical energy into electrical energy ?
 A. Motor B. Dynamo C. Capacitor D. Transformer
80. What is the unit of charge ?
 A. Watt B. Volt C. Ampere D. Coulomb
81. A plant with green leaves placed in red light will appear
 A. Black B. Green C. Red D. Violet
82. Who said, "A body will remain at rest unless an external forces acts on the body".
 A. Newton B. Einstein C. Archimedes D. Galileo

83. The earth's atmosphere is richer in -----
A. infra red radiation B. Ultra violet radiation
C. visible radiation D. Blue colour radiation
84. The walls of the halls built for music concerts should -
A. amplify sound B. transmit sound C. reflect sound D. absorb sound
85. The same notes being played on the Sitar and Veena differ in -----
A. pitch B. quality C. both pitch and quality D. none of these
86. In diesel engine, ignition takes place by
A. compression B. electric spark C. Dynamo D. Battery
87. A geostationary satellite revolves from -----
A. West to east B. East to west C. South to north D. North to south
88. Mosquitoes breed on the free surface of stagnant water because
A. The eggs can be supported by the higher surface tension of liquid.
B. The eggs can only grow in filthy water
C. The liquid provides higher buoyancy to the eggs.
D. The density of egg is less than density of liquid.
89. The powder clings to the skin because of -----
A. Cohesion B. Capillary action C. Adhesion D. Absorption
90. In a Doctor's stethoscope, the sound is intensified because of -----
A. resonance of sound B. constructive interference
C. principle of superposition of waves D. reflection of sound
91. A piece of wood is floating in water. If we heat the water, the piece of wood will
A. Increase in size B. Rise a little C. Float at the same level D. Sink a little
92. How many electron guns are there in the picture tube of a colour TV ?
A. 5 B. 3 C. 7 D. 9
93. A tape recorder should not be kept near one of the following things?
A. Clock B. Radio C. Magnet D. Bell
94. Two plane mirrors are put parallel to each other. How many images will be formed if an object is put between them ?
A. Two B. Ten C. Four D. Infinite
95. Water pipes burst in severe winter at hill stations because
A. They contract on cooling B. Water in the pipe expands on freezing
C. Water in the pipes contract D. Pipes expand on cooling
96. The density of sea water increases as :
A. depth and salinity decreases B. depth decreases and salinity increases
C. depth increases and salinity decreases D. depth and salinity increases
97. Which of the following is India's first climate satellite ?
A. INSAT-1D B. MetSat C. Aryabhata D. Apple
98. What is a supernova ?
A. A black hole B. A dying star C. A comet D. An asteroid
99. Myopia can be corrected by using a
A. Convex lens B. Plane glass C. Concave lens D. Bifocal lens
100. Which of the following is wrongly matched
A. Electric current - Ampere B. Resistance - ohm
C. Electric power - watt D. Electric charge - coulomb

ANSWERS

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