

EVERYDAY SCIENCE : PHYSICS -NO.7

Time: 30 minutes

Marks: 100

1. In the visible spectrum the colour having the shortest wavelength is :
A. Green B. Red C. Violet D. Blue
2. A mirage occurs because :
A. the refractive index of atmosphere increases with height
B. the refractive index of atmosphere decreases with height
C. the hot ground acts like a mirror D. refractive index remains constant with height
3. Which of the following instruments can be used to measure the illuminating power of two sources :
A. Lactometer B. Manometer C. Salinometer D. Photometer
4. A well cut diamond appears bright because :
A. of reflection of light B. of dispersion of light
C. the total internal reflection D. of refraction of light
5. At the moment of dew formation on a cool night, the air :
A. must loose all water vapour B. must remain unsaturated
C. must get mixed up with some other vapour D. must become saturated
6. At sun rise or at sun set the sun appears to be reddish while at mid day it looks white. This is because :
A. Scattering due to dust particles and air molecules causes this phenomenon
B. The sun is cooler at sun rise and at sunset C. Refraction causes this phenomenon
D. Due to diffraction, the red rays falls on the earth at these times
7. Christian Hygen is associated with :
A. quantum theory B. wave theory of light C. the phenomenon of diffraction
D. the phenomenon of double refraction
8. Sometimes blurred and less sharply defined images are formed. This defect is called :
A. Chromatic aberration B. Spherical aberration C. Blurred lens D. Astigmatism
9. A number of images of a candle flame can be seen in a thick mirror. The brightest image is:
A. fourth B. second C. last D. first
10. The term refraction of light is :
A. the bending of light rays when they enter from one medium to another medium
B. splitting of white light into seven colours when it passes through the prism
C. bending of light round corners of obstracles and apertures
D. coming back of light from a bright smooth surface
11. Which one of the following is an example for semi conductor
A. Silver B. Indium C. Galium D. Germanium
12. When a glass rod is rubbed with silk
A. negative charge is produced on silk but no charge on the glass rod
B. equal but opposite charges are produced on the both
C. equal and similar charges are produced on the both
D. positive charge is produced on the glass rod but no charge on the silk

13. The primary cell which is used in daily life is :
A. Leclanche cell B. dry cell C. Daniel cell D. simple voltaic cell
14. The principle of Dynamo was discovered by :
A. Sir Humphry Davy B. Michael Faraday C. Albert Einstein D. Max Plank
15. An air-box attached to a musical instrument increases the
A. pitch of the second B. intensity of the sound
C. quality of the sound D. Shrillness of the sound
16. The filament of an electric bulb is of tungsten because :
A. its resistance is negligible B. it is cheaper
C. its melting point is high D. filament is easily made
17. The bulbs which emit a bluish light, are :
A. filled with argon B. filled with nitrogen C. vacuum bulbs
D. coated from inside with a light blue colour
18. On electrolysis of water, oxygen is collected at :
A. anode B. cathode C. both electrodes D. none of the above
19. One fathom is equal to ———
A. 6 metres B. 6 feet C. 60 feet D. 600 metres
20. Gases are good conductors of electricity at :
A. high pressure B. low pressure C. low temperature D. high temperature
21. The atoms which have the same atomic number but with different mass number are known as:
A. isotopes B. isogonic C. isobars D. isotherms
22. The resistance of a thin wire in comparison of a thick wire of the same material
A. is low B. is equal C. depends upon the metal of the wire D. is high
23. The domestic consumption of electrical energy is calculated in :
A. ergs B. coulombs C. joules D. kilowatt hours
24. The device used for converting alternating current to direct current is called :
A. rectifier B. Induction coil C. Transmitter D. Transformer
25. Which one of the following substances is the magnetic substance ?
A. Mercury B. Iron C. Gold D. Silver
26. A magnet can be demagnetized by :
A. hammering the magnet B. putting it in the water
C. cooling it D. putting it in contact with iron.
27. A moving coil galvanometer is converted into an ammeter by putting :
A. a high resistance in parallel B. a low resistance in series
C. a low resistance in parallel D. a high resistance in series
28. Lamps used for street lighting are connected in :
A. parallel B. series and parallel both C. series D. none of the above
29. Microphone is used to convert :
A. electrical energy into sound energy B. sound energy into electrical energy
C. sound energy into mechanical energy D. sound energy into chemical energy
30. When a wave travels from one medium to another, the quantity which will not change is its:
A. amplitude B. velocity C. frequency D. intensity

31. Asteroids are :
 A. a group of small heavenly bodies, forming a belt rotating round the sun
 B. starts forming a recognizable pattern C. solid bodies from the outer space
 D. a large cluster of stars distributed in the universe in an irregular form
32. Isotopes are nuclei which have :
 A. same number of protons B. same number of neutrons
 C. unequal electric charge D. equal mass
33. Transverse waves cannot travel through :
 A. an iron rod B. hydrogen gas C. a stretched nylon string D. lubricating oil
34. The colour of light is determined by its :
 A. wavelength B. phase C. velocity D. amplitude
35. Electric current is generated by :
 A. diode B. transistor C. dynamo D. motor
36. Pointed earthed conductors are put on tall buildings to :
 A. repel charged clouds B. remove charges induced by the clouds
 C. collect charges from the clouds and pass them to the earth
 D. serve as antennas for radio sets
37. As one goes up from earth's surface, the temperature of air :
 A. increases B. decreases C. first increases and then decreases
 D. first decreases and then increases
38. Transformers are used to :
 A. convert AC to DC B. convert DC to AC
 C. step up DC voltage D. step up or step down AC voltage
39. Sonar is a device for :
 A. location and ranging of aircrafts B. location and ranging submarines
 C. producing a musical note of high quality D. measuring frequency of musical notes
40. Cyclotron is a device to produce :
 A. atomic energy B. high energy electrons C. high energy photons D. high energy protons
41. A stationary electric charge produces :
 A. an electric field B. a magnetic field C. both electric and magnetic field
 D. neither an electric field nor a magnetic field
42. The energy produced in the sun is due to :
 A. fission reaction B. fusion reaction C. chemical reaction D. motion of electrons and ions
43. Sound travels in air in form of :
 A. electromagnetic waves B. transverse elastic waves
 C. longitudinal elastic waves D. shear waves
44. Which part of the sun is visible during total solar eclipse ?
 A. corona B. Chromosphere C. photosphere
 D. no part of the sun is visible as it is completely covered by the moon
45. When a pencil is partly immersed in water in a beaker and held in a slanting position, the immersed portion appears
 A. bent towards the bottom B. bent towards the water surface
 C. bent in a zigzag manner D. as if it was not immersed

46. When taken to top of a mountain, a clock
A. will go fast B. will go slow C. will show no change D. will stop
47. When water boils, the temperature
A. begins to increase B. begins to decrease C. remains constant D. fluctuates
48. Natural radioactivity was discovered by
A. Marie curie B. Ernest Rutherford C. Henry Bequerel D. Enrico Fermi
49. The period of revolution of a geostationary satellite is :
A. 24 hours B. 30 days C. 365 days D. changing continuously
50. The Leaning Tower of Pisa does not fall because
A. it is tapered at the top B. it covers a large base area
C. its centre of gravity remains at the lowest position
D. the vertical line through the centre of gravity of the tower falls within its base
51. A hand written message can be instantly transmitted as such to any part of the world through———
A. Telex B. FAX C. Electronic mail D. Speed post
52. The penetration of waves into the region of the geometrical shadow is ——
A. Interference B. Diffraction C. Polarisation D. Dispersion
53. The radio active element which is used for finding the age of fossils is :
A. Carbon - 12 B. Carbon - 14 C. Radioactive nitrogen D. Oxygen - 17
54. Unit of capacitance is
A. Volt B. Coulomb C. Farad D. Ampere
55. On the moon an astronaut cannot drink lemonade with the help of a straw because
A. Acceleration due to gravity experienced on the moon is high
B. Gravitational force is high on moon C. There is no atmosphere on the moon
D. None of these
56. An athlete run some distance before taking a long jump, by running the athlete gives himself
A. larger inertia of motion B. lesser inertia of motion
C. large inertia of rest D. none of these
57. Who is the author of 'Principia Mathematica'?
A. Archimedes B. Aryabhata C. Sir Isaac Newton D. Baskaracharya
58. The weight of diamond is determined by an unit called ——
A. carat B. candela C. Calorie D. metric ton
59. A bubble of water shines because of
A. Reflection B. Refraction C. Total internal reflection D. Diffraction
60. A rainbow is always seen
A. in the opposite direction of the sun B. in the same direction of the sun
C. in the north D. in all direction
61. Which of the following are Einstein's discoveries ?
A. photoelectric effect and X-rays B. radioactivity and the theory of relativity
C. Photoelectric effect and theory of relativity D. radioactivity and X-rays
62. Echos are produced due to the
A.reflection of sound B.refraction of sound C. diffraction of sound D.polarization of sound
63. Dentist's mirror is a
A. cylindrical mirror B. plane mirror C. convex mirror D. concave mirror
64. Sound waves do not show —— in air.
A. Polarisation B. Diffraction C. Refraction D. Reflection
65. The velocity of sound is greatest in :
A. water B. Air C. Vaccum D. Metal

66. There is no atmosphere on the moon because:
A. it is closer to the earth B. it revolves round the earth C. it gets light from the sun
D. the escape velocity of the gas molecules is lesser than their root mean square velocity
67. The weight of a body at the centre of the earth is :
A. zero B. infinite C. same as on the surface of earth D. None of the above
68. When a train stops suddenly, the passengers in the running train feel an instant jerk in the forward direction because :
A. the back of seat suddenly pushes the passengers forward
B. inertia of rest stops the train and takes the body forward
C. upper part of the body continues to be in the state of motion whereas the lower part of the body in contact with seat comes at rest.
D. nothing can be said due to insufficient data
69. Which of the following is used as lubricant in heavy machines ?
A. Bauxite B. Sulphur C. Phosphorus D. Graphite
70. As we go from the equator to the poles, the value of g ——
A. remains the same B. decreases C. increases D. None
71. Angstrom is the unit used for measuring wavelength of light. This is equal to
A. 10^{-6} cm B. 10^{-8} cm C. 10^{-12} cm D. 10^{-15} cm
72. One finds it more difficult to walk on ice than on a concrete road because
A. Ice is soft and spongy whereas concrete is hard
B. The friction between the ice and the feet is less than that between the concrete and the feet.
C. The friction between the ice and the feet is greater than that between concrete and the feet.
D. None of these
73. A balloon filled with hydrogen
A. will continue going upwards uninterrupted
B. will reach at a particular height and remain floating
C. will burst after reaching some height D. None of these
74. A piece of cork is embedded inside an ice block which floats in water. What will happen to the level of water when all the ice melts ?
A. It will go down B. It will come up C. It will remain at the same level D. Move slightly
75. 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
76. A device used for measuring the depth of the sea is called
A. Altimeter B. Fathometer C. Hydrometer D. Manometer
77. Which of the following is a physical change
A. Rusting of iron B. Burning of candle C. Boiling of water D. Boiling of an egg.
78. Mercury thermometer can be used to measure temperature upto
A. 260°C B. 100°C C. 360°C D. 500°C
79. The inability of a body to change its state of rest or of uniform motion along a straight line is called its
A. Momentum B. Velocity C. Acceleration D. Inertia
80. The distance between two bodies is halved. Now the force of attraction between them will be
A. Half B. One fourth C. 4 times D. 2 times
81. Soap helps in cleaning the clothes because
A. It reduces the surface tension of solution B. It gives strength to solution
C. Increases the surface tension of solution D. Chemicals in the soap removes the dirt

82. If two capillary tubes of different diameters are dipped in water, the rise of water is
A. Greater in the tube of larger radius B. Greater in the tube of smaller radius
C. Same in both of the tubes D. None of the above
83. When temperature increases the viscosity of a liquid
A. Increases B. Decreases C. Remains constant D. zero
84. When ice melts, its volume
A. Decreases B. Increases
C. Remains the same until all the ice has melted and then increases D. Remains the same
85. A man pushes a wall but fails to displace it. He does
A. negative work B. positive work but not maximum
C. no work at all D. maximum positive work
86. When a bottle of perfume is opened in one corner of a room the smell spreads soon throughout the room. This is an example of
A. Surface Tension B. Capillarity C. Viscosity D. Diffusion
87. In compact porous soil, the water rises and evaporates. The rising of the water is due to
A. capillarity B. Cohesion C. Adhesion D. surface tension
88. The unit of heat energy is
A. watt B. Degree C. Joule D. Thermopile
89. A bolometer is used to measure
A. The quantity of heat energy in a body B. Thermal radiations quantitatively
C. High temperature D. The intensity of sound
90. Metals are good conductors of heat because
A. They contain free electrons B. Their atoms are relatively far apart
C. Their atoms collide frequently D. They have reflecting surfaces
91. Hydrogen bomb is an example of
A. Uncontrolled nuclear fission B. Uncontrolled nuclear fusion
C. controlled nuclear fusion D. controlled nuclear fission
92. A GM counter is used for detecting
A. underground oil B. coal C. underground water D. Radioactivity
93. Rutherford is the unit of
A. Radioactivity B. Photoelectric current C. Energy D. Magnetic field
94. The element of an electric stove is made of
A. copper B. platinum C. Tungsten D. Nichrome
95. Kepler discovered
A. Laws of motion B. Laws of rotational motion
C. Laws of planetary motion D. Laws of curvilinear motion
96. The force between two protons is
A. Always repulsive B. Always attractive
C. Attractive or repulsive depending on the distance between them D. Always zero
97. Which, among the following, is a surface to surface missile ?
A. Trishul B. Prithvi C. Akash D. None of the above
98. The sea of Tranquility and Ocean of storms are on
A. The moon B. The Mars C. Venus D. None of these
99. The radiator in a car serves to
A. Cool the engine B. Heat up the engine C. Start the car D. Moderate the speed
100. The magnetism of the magnet is due to
A. movement of the earth B. Cosmic rays
C. pressure of the big magnet inside the earth D. the spin motion of electrons

ANSWERS

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