

EVERYDAY SCIENCE : PHYSICS -NO.6

Time: 30 minutes

Marks: 100

1. Which of the following is the best conductor for electricity?
A. Distilled water B. Salt water C. Tap water D. Rain water
2. A sprayer works on the principle expounded by
A. Newton B. Archimedes C. Boyle D. Pascal
3. Cloudy nights are warmer because
A. clouds prevent radiation of heat from the ground into the air
B. of low atmospheric pressure
C. of the compact density of air D. more dust particles gather in the air
4. A moving body on earth ordinarily comes to rest by itself because of the
A. law of inertia B. force of friction C. conservation of momentum D. gravity
5. An isotherm is a line joining places having equal
A. Humidity B. Air pressure C. Temperature D. Rainfall
6. Railway tracks are banked on curves so that
A. necessary centrifugal force may be obtained from the horizontal component of the weight of the train
B. frictional force can be avoided between the tracks and wheels
C. necessary centripetal force may be obtained from the horizontal component of the weight of the train
D. the train may not fly off in the opposite direction
7. In deserts, clouds do not precipitate because of
A. low pressure B. low humidity C. high wind velocity D. low temperature
8. The spinning of Earth on its axis is called
A. Rotation B. Revolution C. Orbit D. Movement
9. The ink of a 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 the aeroplane D. temperature difference
10. In an electric kettle water becomes hot by
A. conduction B. radiation C. moving particles D. convection
11. Which of the following criteria is necessary for any metal to be used as a cooking utensil?
A. less thermal conductivity B. more thermal conductivity
C. less electrical conductivity D. more density
12. Clouds float in the atmosphere because of their low
A. temperature B. speed C. pressure D. density
13. Light year is a unit of
A. time B. distance C. light D. intensity of light
14. Fish can survive inside a frozen lake because
A. fish are cold blooded animals B. fish can breathe when embedded in ice
C. fish move to the bottom of the lake where the water is at 4°C and hence cannot freeze
D. fish move to the top of the lake where the water is at 4°C and hence cannot freeze
15. Magnetism at the centre of a bar magnet is
A. minimum B. maximum C. zero D. minimum or maximum
16. Seismograph is an instrument used for measuring
A. windspeed B. rainfall C. earth quake D. snow fall
17. Why are we able to hear short wave broadcasts better than long wave broadcasts?
A. short wave broadcasts are made by nearby radiostations
B. short waves are unaffected by atmospheric disturbances

- C. short waves are more energetic than long waves
D. by convention, short waves are meant for long distances whereas long waves are reserved for short distances
18. Which of the following is a good conductor of heat but bad conductor of electricity ?
A. asbestos B. celluloid C. silver D. mica
19. On a clean glass plate a drop of water spreads to form a thin layer whereas a drop of mercury remains almost spherical because
A. mercury is a metal
B. the density of mercury is greater than that of water
C. the cohesion of mercury is greater than its adhesion with glass
D. the cohesion of water is greater than its adhesion with glass
20. Bats can fly in the dark because
A. they can see better in the dark B. the pupils of their eyes are very wide
C. they are guided by the ultrasonic waves that they produce
D. they are guided by micro waves
21. 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
22. A capacitor (condenser) is used in an electrical circuit in order to
A. prevent the flow of electric charge B. store electric charge C. produce electric charge
D. Switch off the current
23. A unit of energy is same as that of
A. work B. power C. force D. acceleration
24. Oscillators are used to convert
A. DC to AC B. AC to DC C. high voltage to low voltage
D. low voltage to high voltage
25. Vikram Sarabhai Space Centre is situated in
A. Thiruvananthapuram B. Sriharikota C. Bangalore D. Visakhapatnam
26. Of the following natural phenomena, which one is known in Sanskrit as 'deer's thirst'
A. rainbow B. earthshine C. halo D. mirage
27. The neutron was discovered by
A. Chadwick B. Rutherford C. Fermi D. Bohr
28. A shooting star is basically a
A. meteor B. supernova C. comet trail D. disturbance in atmosphere
29. The overalls of rolling mill workers are covered with bright tinfoils so that
A. heat rays may be absorbed in B. heat rays may be reflected back
C. the overalls protect the body from outside injury
D. the overalls protect the body from electric shock
30. While passing over a suspension bridge, soldiers are not allowed to march in steps. This is
A. to prevent any formation of sharp echo B. because there cannot be orderly marching
C. to prevent any occurrence of resonance with the bridge
D. to prevent the bridge from executing forced vibrations
31. In a doctor's stethoscope, sound is intensified because of
A. resonance of sound B. constructive interference
C. principle of superposition of waves D. reflection of sound
32. Metals ———— when they are heated
A. contract B. some times contract, some times expand
C. expand D. do not change in shape or size
33. If water in a lake were to behave like other liquids, 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.

34. Fathom is the unit used for measuring
A. Depth B. Sound C. Energy D. Current
35. The freezer in a refrigerator is fitted near the top
A. to keep it away from the hot compressor which is near the bottom
B. because of convenience
C. so that it can cool the whole interior by setting up convection currents
D. without any specific purpose
36. A boat loaded with rocks floats in the middle of a swimming pool and a man in the boat throws rocks overboard into the water. The water level of the pool will
A. rise B. be lowered C. remain unchanged D. first rise then go down
37. By what process is heat transmitted from the filament of evacuated electric bulb to the glass?
A. conduction B. convection C. radiation
D. heat cannot be transmitted through a vacuum
38. The instrument used to detect aero planes and other objects in the sky
A. Periscope B. Radar C. Telescope D. None of these
39. A person cups his hand around the mouth when shouting because
A. Sound energy is then directed in one direction B. Sound increases in volume
C. Pitch of the sound increases D. The action has no bearing on sound
40. The dynamo converts
A. mechanical energy into electrical energy B. electrical energy into mechanical energy
C. mechanical energy into magnetic energy D. none of these
41. A man sitting inside an open vehicle moving uniformly throws a stone vertically upwards. The stone will fall
A. ahead of him B. behind him C. over him
D. ahead or behind him, depending on the velocity
42. A supersonic plane flies at the speed
A. less than the speed of the sound B. of sound
C. greater than the speed of the sound D. of light
43. Why is it dangerous for man to stand too close to the speeding train ?
A. He may be shocked by the speed and noise
B. The atmospheric pressure outside may push him against the train
C. He may slip and dash against the train D. It is not at all dangerous
44. The flying of birds is a proof of Newton's
A. First law B. Second law C. Third law of motion
D. both Second and Third laws
45. Energy is not carried by
A. transverse progressive waves B. longitudinal progressive waves
C. stationary waves D. electromagnetic waves
46. 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
47. A sharp knife cuts more easily than a blunt knife because
A. it exerts less pressure B. it exerts more pressure
C. of the law of inertia D. it is easy to handle
48. Woolen cloths keep us warm in winter because they
A. produce more warmth B. are good absorbers of heat
C. do not allow our body heat to escape D. do not allow cool air to enter
49. The apparent weight of a man in a lift is less than his real weight
A. when the lift is going down with uniform acceleration
B. when the lift is going up with uniform acceleration
C. when the lift is stationary D. at no time

50. When iron and wood are exposed to sunlight, the iron rod becomes hot quickly because of
 A. the greater thermal conductivity of iron B. the lower thermal conductivity of iron
 C. the greater density of iron D. the less density of iron.
51. A piece of rock was brought from the moon
 A. its mass alone changed B. its weight alone changed
 C. both mass as well as weight changed D. neither its mass nor its weight changed
52. The image formed on the retina of the human eye is
 A. Real and upright B. Real and inverted
 C. Unreal and upright D. Unreal and inverted
53. A boat carrying a number of large stones is floating in a water tank. If the stones are unloaded into the water, the level of water in the tank
 A. will remain unchanged B. will rise C. will fall
 D. will rise till half the number of stones are unloaded then will begin to fall
54. Which falls down faster in a vacuum: a wooden ball, a feather or a steel ball ?
 A. wooden ball B. feather C. steel ball
 D. all will fall down at the same speed in a vacuum because will be no air resistance
55. The relative density of a liquid is measured by using an instrument called
 A. altimeter B. hydrometer C. barometer D. galvanometer
56. It is easier to roll a stone up a sloping road than to lift it vertically upwards because
 A. work done in rolling is more than in lifting
 B. work done in lifting the stone is much more than rolling it
 C. work done in both in same but the rate of doing work is less in rolling
 D. work done in rolling a stone is less than in lifting it
57. Sound travels fastest through
 A. vacuum B. steel C. water D. air
58. A rainbow is produced when sunlight falls on drops of rain. Which of the following physical phenomena are responsible for this ?
 1. diffusion 2. refraction 3. total internal reflection
 A. 1, 2 and 3 B. 1 and 2 C. 2 and 3 D. 1 and 3
59. If two bulbs of power 40 w and 100 w are joined in series and connected to the domestic electric supply terminals, which bulb glows much more brightly
 A. 40 w B. 100 w C. Both of the glows brightly
 D. Both of them stop glowing
60. A Celsius and a Fahrenheit thermometers give the same reading at a particular temperature. What is that temperature?
 A. -273°C B. -180°C C. -40°C D. 0°C
61. Fish plates are used in railway tracks
 A. to avoid tracks being distorted due to temperature fluctuation
 B. to control the speed of the train
 C. to connect two rails D. to keep the rails equidistant
62. A circular metallic disc has a circular hole at its centre. When the disc is heated, the diameter of the hole
 A. decreases B. increases C. decreases at first and then increases
 D. remains unchanged
63. In which atmospheric layer are communication satellites located ?
 A. stratosphere B. ionosphere C. troposphere D. exosphere
64. In an earthen pot, cooling of water depends upon the
 A. outside temperature B. atmospheric humidity C. wind D. all the above
65. If a magnet is cut into two piece of equal length
 A. both pieces will lose their magnetism
 B. one piece will at as north pole and the other as south pole
 C. both pieces will behave as complete magnets
 D. one of the pieces will lose its magnetism

66. The nucleus of an atom consists of
A. protons + electrons
B. only protons
C. protons + neutrons + electrons
D. protons and neutrons
67. A sudden fall in a barometer reading indicates
A. clear weather
B. hail storm
C. storm
D. heavy rainfall
68. The swing of a spinning cricket ball in air can be explained on the basis of
A. sudden change in wind direction
B. buoyancy of air
C. turbulence caused by wind
D. Bernoulli's theorem
69. Sound travels with a different speed in different media. In what order does the velocity of sound increase in these media?
A. water, iron and air
B. iron, air and water
C. air, water and iron
D. iron, water and air
70. A train goes past a railway station at a high speed. A young boy standing on the edge of the platform is likely to
A. remain unaffected
B. fall away from the train
C. fall towards the train
D. fall away from or towards the train depending on its speed
71. The three primary colours are
A. violet, green and red
B. indigo, blue and orange
C. blue, green and red
D. blue, yellow and red
72. Which part of a camera is analogous to the retina in the human eye ?
A. lens
B. film
C. aperture
D. shutter
73. Which of the following metals is the best conductor of electricity ?
A. copper
B. aluminium
C. silver
D. iron
74. Which of the following lenses is used to remedy the eye defect Myopia ?
A. Concave
B. Convex
C. Cylindrical lens
D. Plain glass
75. Water has maximum density at
A. room temperature
B. 0°C
C. 4°C
D. 100°C
76. Graphite and heavy water are two common moderators used in a nuclear reactor. The function of the moderator is to
A. slow down neutrons
B. absorb neutrons
C. cool the reactor
D. arrest the chain reaction
77. Conservation of energy means that
A. energy can be created as well as destroyed
B. energy can be created but cannot be destroyed
C. energy cannot be created but can be destroyed
D. energy can neither be created nor destroyed
78. A person climbing a hill bends forward in order to
A. avoid slipping
B. increase speed
C. reduce fatigue
D. increase stability
79. A heavenly body that has enormous surface gravity and swallows any particle, or even light, that approaches it is called a
A. pulsar
B. quasar
C. neutron star
D. black hole
80. The instrument for measuring the purity of milk
A. Hydrometer
B. Chronometer
C. Barometer
D. Lactometer
81. If an apple is released from an orbiting spaceship, it will
A. fall towards the earth
B. move along with the spaceship at the same speed
C. move at higher speed
D. move at a lower speed
82. When a ship enters a sea from river
A. it rises a little
B. it sinks a little
C. it remains at the same level
D. it rises or sinks depending on the material it is made of
83. One feels comfort in sitting near a fan in summer because
A. the fan circulates the air
B. the fan provides a ventilation
C. the fan helps in radiating more heat
D. the fan helps in rapid evaporation of perspiration

84. The best conductor of heat among liquids is
A. water B. mercury C. ether D. alcohol
85. 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
86. A fuse wire is characterized by
A. high resistance and high melting point B. low resistance and high melting point
C. high resistance and low melting point D. low resistance and low melting point
87. If a pendulum clock be taken from the equator to the poles it will
A. run slow B. run fast C. show the same time D. stop altogether
88. If a pendulum clock be taken from the earth to a revolving artificial satellite, it will
A. run slow B. run fast C. give the same time D. stop altogether
89. When ice melts in a beaker of water, the level of water in the beaker will
A. increase B. decrease C. remain the same D. first increase and then decrease
90. Which one of the following statements is wrong ?
A. sound travels in a straight line B. sound travels as waves
C. sound is a form of energy D. sound travels faster in vacuum than in air
91. Who was known as the wizard of Menlo Park ?
A. Thomas Alva Edison B. Sir Isaac Newton
C. Dr. A.P.J. Abul kalam D. C.V. Raman
92. When milk is churned, cream gets separated due to
A. centripetal force B. centrifugal force C. frictional force D. gravitational force
93. A red light is used in a traffic signal because
A. it has the longest wavelength and can be easily noticed from a long distance
B. it is beautiful C. it is visible even to people with bad eyesight D. none of these
94. The Cyclotron is a device for
A. Purifying metals B. Accelerating particles C. Separating oil from water
D. Producing protons
95. Sound of frequency below 20 Hz are called
A. audio sounds B. infrasonics C. ultrasonics D. supersonics
96. A man standing at the finish line is recording the time of a race competition by means of a stop watch. He must start the watch when, he _____
A. hears sound of the starting gun B. sees flash of light coming from the starting gun
C. sees first man leaving the starting line D. either sees the flash or hears the sound
97. Mach number is used in connection with the speed of
A. Sound B. Aircraft C. Space Craft D. Ships
98. In electric fittings, the wires are earthed because
A. in case of a short circuit, current passes to the earth
B. it avoids leakage of electricity
C. it completes the electric circuit D. it reduces fluctuation
99. The absorption of ink by blotting paper involves
A. viscosity of ink B. capillary action phenomenon
C. diffusion of ink through the blotting D. siphon action
100. Materials for rain-proof coats and tents owe their water proof properties to
A. surface tension B. viscosity C. specific gravity D. elasticity

ANSWERS

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