Physics Final Exam Study Guide 2014

1. When an object’s distance from another object is changing…
2. The basic SI unit of length is the…
3. Speed equals distance divided by…
4. When you know both the speed and direction of an object’s motion, you know the…
5. You can show the motion of an object on a line graph in which you plot distance against…
6. The steepness of a line on a graph is called the…
7. The rate at which velocity changes is called…
8. Which of these is an example of deceleration?
9. To determine the acceleration rate of an object you must calculate the change in speed during each unit of…
10. If speed is measured in kilometers per hour and time is measured in hours, the unit of acceleration is…
11. Average speed is…
12. A place or object used for comparison to determine if something is in motion is called…
13. On a graph showing distance versus time, a horizontal line represents an object that is…
14. If you know the distance an object has traveled in a certain amount of time, you can determine…
15. It is rare for any motion to…
16. Which of the following is an example of exerting a force?
17. What happens when two forces act in the same direction?
18. The tendency of an object to resist change in its motion is known as…
19. The greater the mass of an object…
20. The force of gravity on a person or object on the surface of a planet is called…
21. The force that one surface exerts on another when the two rub against each other is called…
22. Which of the following is an example of rolling friction?
23. The law of universal gravitation states that any two objects in the universe, without exception…
24. The product of an object’s mass and velocity is called its…
25. According to the law of conservation of momentum, when two objects collide in the absence of friction,
26. In physical science, a push or pull is called a(n)…
27. The amount of matter is an object is called its…
28. According to Newton’s 3rd Law of Motion, when a hammer strikes and exerts force on a nail, the nail…
29. The SI unit for force is the…
30. For work to be done on an object…
31. Which of these is an example of work being done on an object?
32. If you exert a force of 20 newtons to push a desk 10 meters, how much work do you do on the desk?
33. Work is measured in…
34. What do machines do?
35. Pulling down on a rope to hoist a sail on a sailboat is an example of a machine…
36. The mechanical advantage of a machine is the number of times a machine increases…
37. An ideal machine would have an efficiency of…
38. A ramp is an example of a simple machine called a(n)…
39. Which of these is an example of a 3rd class lever?
40. One example of a compound machine is a…
41. Which of these could be considered an inclined plane wrapped around a cylinder?
42. The fixed point that a lever pivots around is called the…
43. In order to do work on an object, the force you exert must be…
44. Work equals force times…
45. When you raise or lower a flag on a flagpole, you are using a(n)…
46. Most of the machines in your body consist of bones and muscles and are called…
47. Power is measured in units called…
48. The wedge, screw and lever are all…
49. A disturbance that transfers energy from place to place is called a….
50. The highest parts of a transverse wave are called…
51. Waves that move the particles of the medium parallel to the direction in which the waves are traveling are called…
52. The maximum distance that the particles of a medium move from the rest position is the…
53. The distance between two corresponding parts of a wave is the wave’s…
54. The speed of a wave is its wavelength multiplied by its…
55. The bending of waves due to a change is speed is called…
56. The bending of waves around the edge of a barrier is known as…
57. The interaction between two waves that meet is called…
58. Waves produced by earthquakes are called…
59. Longitudinal seismic waves are known as…
60. Secondary waves CANNOT travel through…
61. Which waves arrive at a seismograph 1st?
62. Frequency is measured in units called…
63. As in the case of unlike magnetic poles, unlike electric charges…
64. The buildup of charges on an object is called…
65. The loss of static electricity as electric charges move off an object is called…
66. Suppose you acquire a positive charge from walking across a carpet. You then touch a doorknob and receive a shock. This leaves you…
67. The type of energy that depends on position is called…
68. What causes charges to move in circuit?
69. If an electric water heater uses 40kW of power and rus for 8 hours, what is the total amount of energy used?
70. According to Ohm’s Law, resistance is equal to voltage divided by…
71. According to Ohm’s Law, what is the resistance of a light if the voltage is 9.0 volts and the current is 0.30 amps?
72. In a series circuit with 3 bulbs
73. In a series circuit with three bulbs, adding another bulb will…
74. In a parallel circuit with 3 bulbs…
75. A connection that allows current to take the path of least resistance is called a…
76. The charge on a proton is…
77. An example of an insulator is…
78. Without wires, electronic signals can be carried over long distances..
79. Kinetic energy increases as…
80. Which of the following has kinetic energy?
81. Which body parts act as the fulcrums of levers?
82. The law of conservation of energy states that when one form of energy is converted into another…
83. Name the type of wave that has the highest frequency.
84. Name the type of wave labeled C.
85. Name the type of wave that has the greatest potential energy.
86. Which letter shows the type of wave that can be seen by the human eye?
87. Name the type of wave labeled A.
88. Which letter indicated X-rays?
89. In what class of lever is the direction of the input force opposite to the direction of the output force?
90. What class of levers is a pair of scissors? Explain.
91. Which class of lever does not multiply the input force? What is its advantage?
92. To which class of lever does each of the following belong (a) fishing pole; (b) wheelbarrow, (c) bottle opener (d) pliers?
93. What would happen to the ideal mechanical advantage of the lever in diagram B if the output force were moved farther from the fulcrum?
94. Why would it be impossible to build machine D?
95. Which circuit A or B represents a series circuit?
96. Which circuit A or B represents a parallel circuit?
97. Which circuit diagram represents circuit B?
98. What will happen to bulb 1 in circuit A if the switch is opened?
99. Will removing bulb 1 in circuit B cause bulb 3 to go out? Explain?
100. What will happen to bulb 2 in circuit diagram D if bulb 1 burns out?