

PHYSICS

BOOKS - JNAN PUBLICATION

PHYSICAL ENVIRONMENT (FORCE AND PRESSURE)

Example

1. Choose the correct one: A push or pull on an

object is called as-

A. puch -pull
B. force □
C. pressure
D. all of above \square
Answer:
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2. What is the case of change in motion or
change in the state of motion?

A. pressure \square
B. friction □
C. atmospheric □
D. force □
Answer:
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3. A ball rolling on the ground slows down and finally stops .It is beasuce of

A. force \square		
B. less force □		
C. friction □		
D. none of the above $\ \square$		
Answer:		
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4. Presssure is defined as		
A. Area/force on which it acts \square		

B. Force /Area on which it acts $\ \square$
C. Volume/Force on which it acts $\ \square$
D. Force/volume on which it acts $\ \Box$
A
Answer:
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5. In a tug of war, two teams pulling a rope
does not move towards any team it implies

that-

A. An equal is being applied in the opposite		
direction \square		
B. An equal force is being appiled in the		
same direction, \square		
C. No force is applied direction \Box		
D. Can not be explained □		
Answer:		
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6. When two forces appiled on an object are equal and opposite, then the forces.

A. May move the object $\ \Box$

B. May stop a moving object \Box

C. May move the object and also cause a

change \square

D. Do not move the object but may cause a

change in its shape \square

Answer:

7. Friction produces-

A. light □

B. alpha rays \square

C. heat □

D. all of above \square

Answer:



8. A liquid exerts pressure in directions
A. upward \square
B. downward
C. side wards
D. all
Answer:
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9. The air pressure on our body is equal to
A. Atmosphere pressure \square
B. sea buttom pressure
C. space pressure
D.
Answer: Watch Video Solution

10. The SI unit of pressure is

A.
$$N/m^3$$
 \square

B.
$$N/m^2$$
 \square

C.
$$kg/m^2$$
 \square

D.
$$pa/m^2$$
 \square

Answer:



11. The standard atmosphere pressure is
A. pressure of a mercury coloumn of height
76cm □
B. mercury of 10 meter □
C. pressure of 76 mm mecrury column $\ \square$
D.
Answer:

12. The upward force excrted on a body by the		
fluid in which it is submerged is called the		
A. Immersion		
B. buoyancy 🗆		
C. weight □		
D.		
Answer:		
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13.	one	which	of	the	following	prresure	of
liqu	uid do	es not	dep	end			

A. dependency over Liquid $\ \square$

B. upper surface area of liquid $\ \Box$

C. density of liquid \square

D.

Answer:



14. Density of saline water is than purifed
water.
A. more
B. less □
C. same
D.
Answer:
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15. Density of mercury is
A. low
B. very high □
C. very low □
D.
Answer: Watch Video Solution

Pressure of saline water is greather than purifed water.



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17. State whether True or False:

Buoyancy is a kind of force.



if the weight of an objective is greater than buoynancy of that object it gets immersed in water.



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19. state whether True or False

Pressure on any point of liquid is same.



In SI system unit of pressure is Newton / $meter^2$



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21. state whether True or False

Density of kersons oil is less than desnity of

water.



Buoyancy acts towards the weight of an object.



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23. state whether True or False

The syring works on a principle of atmospheric prussure.



Newton's first law of motion is alternatively called as law of pressure.



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25. state whether True or False

Cutting and piercing tools have blunt edeges.



Camel can not walk on sand due to its broad feet



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27. State whether True or False

Force of friction is greater in case of smooth surface than rough one.



Fuilds exert pressure.



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29. State whether True or False:

When an object remains stationary on a surface the object exerts downward force on the surface vertically.



Pressure and force dscides the direction of flow of a liquid.



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31. Fill in the blanks

Force =mass of the object imes -----



SI unit of measuing force......



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33. Fill in the blanks

When you hold a weight of 1 kg in your hand, the force that is applied on your hand is aroundNewton.



we can change the direction of a moving body

by applying



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35. Fill in the blanks

Litre is the unit of.....



Frictional force works against theof an object

- A. shape
- B. size
- C. motion
- D. mass

Answer:



In SI system unit of density is......



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38. Fill in the blanks

Density of mercury =.....gram/cubic

centimeter.



Mass= Density \times -----.



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40. Fill in the blanks

The force per unit area applied to the surface of a object is known as----.



The strenght of force is usually expressed bt its......

- A. newton
- B. kg
- C. liter
- D. meter

Answer:



Power is sprinked on the carom board to reduce-----.

- A. friction
- B. velocity
- C. mass
- D. acceleration

Answer:



Sliding friction is-----than the static friction.

- A. less
- B. more
- C. equal
- D. can't say

Answer:



Friction depends upon -----of the surface.



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45. Fill in the blanks

Water and other liquid exerts -----when objective move through them



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46. What is the SI unit of force?



47. What is the unit of pressure?



48. What is the rate of change of velocity called?



49. What is unit of acceleration in CGS system?



50. What is the CGS unit of pressure?



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51. What is the density?



52. What is the SI unit of density?



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53. Gallon is the unit of which substance?

A. mass

B. force

C. liter

D. length

Answer:



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54. What is pressure?



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55. If same force is exerted on a substance and area increases then, will the pressure increase or decrease?





56. Name the instrument which is used to measure liquid pressure?

Barometer \square

Thermometer \Box

Conical Flask

Scale \square



57. Is friction is same for all the surfaces?
YES
NO 🗆
Can't Say □
None of These
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58. What is the weight of substance?
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59. Due to which acceleration a substance fall downwards?



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60. What is the SI unit of acceleration due to gravity?



61. Force of friction is greater in case of rough surface or smooth surface?



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62. Give an example to show that friction produces heat?



63. can we reduce friction to zero by using
lubricants?
Yes
No 🗆
Can't Say □
None of these $\ \square$
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64. Name the device used for measuring force acting on an object?



65. Does acceleration due to gravity depend on mass?



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66. In which upthurst would be greater saliner water or pure water



67. From which Newton's law we get a concept about action and recation?



68. What is the relation between force, mass and acceleration acting on an objective?



69. What is the density of water in SI system?



70. Whose unit is square meter?

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71. What is acceleration?



72. What is SI unit of acceleration?



73. Why vehicals slow down when breaks are applied?



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74. What is spring balance?



75. What happens when the forces ars applied
on an object in the same direction?
Add □
Subtract
Nothing Happens 🗆
None of These $\ \square$
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76. What is force?



77. Define friction?



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78. What is frictional force?



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79. Define static friction?



80. Define sliding friction?



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81. Write the formula of force per unit area in liquid?



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82. why kerosene oil floats on water?





83. what is acceleration to gravity?



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84. State Pascal's law of fuild



85. Can Pascal's law be applied on water of a pond?



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86. What is standard atmoshpric pressure?



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87. With what gravitational force earth pulls towards its gavity a 7kg mass objective?



88. Define Buoyancy.



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89. Give some example to support the statement that ' friction is important for most of our day to day activities?



90. Why sole of shoes are grooved?

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91. Mention Newton's first law of motion.



92. Mention Newton's second law of motion.



93. Mention Newton's third law of motion.



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94. Describe Archimede's principle.



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95. How will you proof that when an a object is immersed in water the objects had apparent loss of weight?





96. What are factors that effect the upthrust?



97. why the walls of dams at the base are made thicker?



98. Define the term thrust and pressure. What is the relation between them?



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99. why ice floats on water?



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100. what are the different types of friction?



101. Mass of an object is 5 gram and force of 10 dyne is exerted upon it . What amount of acceleration will be created to that object?



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102. Mass of an object is 2kg. What would its weight?



103. Calculate the pressure at the bottom of a fresh water lake of depth 10 m. The atmospheric pressure = 76 cm of mercury and the density of mercury = $13.6g \cdot cm^{-3}$.



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104. If density if mercury is $13.6gm / cm^3$ then find the mass of 1 lit merury?



105. Find out the pressure of 10 cm deep water column.



106. Find the value of standard atmospheric pressure of 76cm mercury column in SI unit.



107. If water is kept instead of mecrury in barometer then find out the height of water.

108. A square plate of side 10 cm is placed horizontally 1 m below the surface of water. The atmospheric pressure is $1.013 \times 10^5 N/M^2$. Calculate the total thrust on the plate. (Density of water d = $10^3 kg/m^3$, $g=9.8m/s^2$)

