PHYSICS

BOOKS - MBD -HARYANA BOARD

FORCE AND PRESSURE

Example

1. Give two examples each of situations in which you push or pull to change the state of motion of objects.

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2. Give two examples of situations in which applied force causes a change in the shape of an object.

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3. To draw water from a well we have to _____at the rope.

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4. To move a loaded trolley we have to_____it.

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5. The north pole of a magnet_____the north pole of another magnet.

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6. An archer stretches her bow while taking aim at the target. She then releases the arrow, which begins to move towards the target. Based on this information fill up the gaps in the statements using the following terms.

muscular, contact, non-contact, gravity, friction, shape, attraction

To stretch the bow, the archer applies a force that causes a change in its_____

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7. An archer stretches her bow while taking aim at the target. She then releases the arrow, which begins to move towards the target. Based on this information fill up the gaps in the statements using the following terms. muscular, contact, non-contact, gravity, friction, shape, attraction

The force applied by the archer to stretch the bow is an example of_____ force.

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8. An archer stretches her bow while taking aim at the target. She then releases the arrow, which begins to move towards the target. Based on this information fill up the gaps in the statements using the following terms.

muscular, contact, non-contact, gravity, friction, shape, attraction

The type of force responsible for a change in the state of motion of the arrow is an example of a _____ force

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9. An archer stretches her bow while taking aim at the target. She then releases the arrow, which begins to move towards the target. Based on this information fill up the gaps in the statements using the following terms.

muscular, contact, non-contact, gravity, friction, shape, attraction

While the arrow moves towards its target, the forces acting on it are due to _____ and that due to_____ or air.

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10. In the following situations identify the agent exerting the force and the object on which it acts. State the effect of the force in each case.

Squeezing a piece of lemon between the fingers to extract its juice.

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11. In the situation identify the agent exerting the force and the object on which it acts. State

the effect of the force in each case.

Taking out paste from a toothpaste tube.

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12. In the situation identify the agent exerting the force and the object on which it acts. State the effect of the force in each case.

A load suspended from a spring while its other end is on a hook fixed to a wall.

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13. In the situation identify the agent exerting the force and the object on which it acts. State the effect of the force in each case.

An athlete making a high jump to clear the bar at a certain height.

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14. A blacksmith hammers a hot piece of iron while making a tool. How does the force due to hammering affect the piece of iron?

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15. An inflated balloon was pressed against a wall after it has been rubbed with a piece of synthetic cloth. It was found that the balloon sticks to the wall. What force might be responsible for the attraction between the balloon and the wall?

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16. Name the forces acting on a plastic bucket containing water held above ground level in your hand. Discuss why the forces acting on the bucket do not bring a change in its state of motion.

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17. A rocket has been fired upwards to launch a satellite in its orbit. Name the two forces

acting on the rocket immediately after leaving the launching pad.

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18. When we press the bulb of a dropper with its nozzle kept in water, air in the dropper is seen to escape in the form of bubbles. Once we release the pressure on the bulb, water gets filled in the dropper. The rise of water in the dropper is due to

A. pressure of water

B. gravity of the earth

C. shape of rubber bulb

D. atmostphere pressure

Answer:

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19. Raman was surprised to see a camel walking easily barefooted on sand but he himself was unable to walk barefoot on sand. What is the reason behind this?

A. The surface area of the foot of the camel is more

B. The surface area of the foot of of Raman is more

C. Both (a) and (b)

D. None of the above

Answer:

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20. By exerting force on anything:

A. result in increasing the speed of the object

B. result in decreasing the speed of the object

C. Results in change in the direction of the motion of the object

D. All the effects are possible

Answer:

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21. Force is:

A. a push on an object

B. a pull on an object

C. a push or pull on an object

D. neither a push nor a pull

Answer:

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22. The food in the foodpipe is pushed forward during digestive process:

A. By electric force

B. Muscular force

C. Magnetic force

D. All of these

Answer:

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23. The force of friction on a moving object always acts:

A. in the direction of motion

B. opposite to the direction of motion

C. in the direction of motion upwards

D. diagonally

Answer:

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24. While carrying luggage on the railway station a 'coolie' often rolls his cloth and places it on his head to :

A. increase force

B. increase pressure

C. reduce weight

D. reduce pressure

Answer:

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25. The pressure applied by liquids .....with the increase in depth.

A. decreases

B. remains same

C. increases

D. depends on the nature of liquids

Answer:

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26. What is common in following actions:

kicking, hitting , lifting , pulling, etc.

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27. What is force?

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28. What is meant by pressure?

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29. Explain with an example force can change the speed of an object. How does second law of newton supports it?

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30. Give an illustration to show that a force can change the shape of the object .List other effects of force too.

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31. Give an illustration to show that a force can produce change in both the speed and directed of motion.

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32. Give one example where force changes the direction of a moving object.

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33. What causes force to act?

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34. What happens when force is applied in the direction of motion?

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35. What happens when force acting on an object are in opposite direction and equal?

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36. What is contact force?

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37. Give example of contact force .

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38. Which type of force os force of gravity?

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39. Give an example of non-contact force.

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40. What is electrostatic force?

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41. How can pressure be increased or decreased?

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42. Why is the foundation of wall made wider?

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43. What is relation between force , area and pressure ?

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44. Which type tool is needed for cutting or piercing?

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45. What is done to stop a moving ball?

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46. Can a moving object on a smoth surface stop by itself? If so, why?

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47. When is net force applied zero? Give an example.

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48. Force is a vector quatity. How?

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49. Name the various types of forces.

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50. List two effects of force.

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51. Define 'state of motion' of an object. Name the 'agent' which can change the state of motion of an object.

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52. Can force change only the direction of motion without any change in speed of an object? If yes, how?

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53. What is muscular force ? Give one example of muscular force.

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54. Give an example of contact force.

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55. Name two non - contact forces.

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56. Why is force of gravity termed as non-contact force ? Explain?

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57. Define pressure. What is its unit?

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58. Why do we use knife to cut fruits ?

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59. Where is pressure greater and the least inside a bottle filled with water?

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60. What makes a balloon get inflated when air is filled in it?

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61. Show experimentally that pressure increases with the depth.

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62. What is atmospheric pressure?

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63. Atmospheric pressure is so great, why are we not creushed by it?

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64. What are the different types of forces? Give an example of each.

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65. When a force is applied to a body, state its effect.

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66. State any three advantages and disadvantages of friction.

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67. Describe an experiment to show that pressure is the same at all points at the same depth.

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