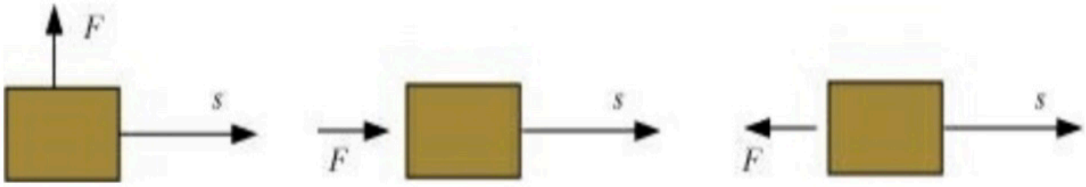
carefully and state whether the work done by the force is negative, positive or zero.



Ans. (i) Since in this diagram displacement is perpendicular to the direction of force, so work done is zero.

(ii) Since in this diagram displacement is in the direction of force, so work done is positive.

(iii) Since in this diagram displacement is in the opposite direction of the force applied hence work done is negative.

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19. Soni says that the acceleration of an object could be zero even when several forces are acting on it. Do you agree with her? Why?

Ans. Yes, we agree with her statement. Because when many balanced forces acting on the object its displacement becomes zero.

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20. Find the energy in kW h consumed in 10 hours by four devices of power 500 W each.

Ans. Since Energy = power x time

$= 4 \times 500 \times 10$ = 20000 Wh = 20 kWh

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21. A freely falling object eventually stops on reaching the ground. What happens to its kinetic energy?

Ans. A free falling object eventually stops on reaching the ground since on striking the ground its kinetic energy is transmitted to the ground.