# CBT EXAM (NOVEMBER) CLASS IX SCIENCE

Q1 In solar cells, light energy is converted into which form of energy.

A) Electric Energy

B)Heat energy

C)Chemical Energy

D)None of these

**CORRECT OPTION(A) Electric Energy**

Q2 An object thrown vertically upwards from a point X reaches the highest point Y.

Select correct statement from the following

A)Kinetic energy at X is equal to energy to Y

B)Potential Energy at X is equal to kinetic energy at Y

C)Potential energy at X is equal to potential energy at Y

D)Kinetic energy at X is equal to potential energy at Y

 **CORRECT OPTION:(D)   Kinetic energy at  is equal to potential energy at Y**

FEEDBACK: When an object is thrown upwards the Kinetic Energy possesed by a body  gets converted into Potential Energy and when it reaches maximum height , all its kinetic energy is converted into potential energy

Q3 In case of negative work the angle between force and displacement is.

A)0

B)45

C)90

D)180

**CORRECT OPTION:(A) 180**

FEEDBACK: In case of negative work object displaces opposite to the direction of force applied, hence angle formed between them is 180

Q4 ASSERTION(A): a crane lifts a bus upto a height of 5m in 10s.Another crane lifts the same bus upto the same height in 20s.Then the power of first crane is two times the power of the second crane.

REASON(R):The rate of doing work is called power.

A)Both A and R are true and R is correct explanation of A

B)Both A and are R true and R is not correct explanation of Aa

C)A is true R is false

D)A is false R is true

**CORRECT OPTION:(A) Both A and R are true and R is correct explanation of A**

FEEDBACK: Power = Work done /Time . If a work is done is less time, Power is more and if same work is done in more time, Power is less.

Q5 when do we say that work is done?
A) when force is applied on the object

B) when object is displaced in the direction of force

C) when force applied is perpendicular to direction of motion of object

D) Both (a) and (b)

**CORRECT OPTION: Both (a) and (b)**

A zero watt bulb is used at homes around photo frames as night bulbs or as decorative bulb. People believe that they do not consume any power hence the name zero watt bulb in reality the consume 12-15 watts of power and therefore they consume electric energy.



Q6 What is the commercial unit of electric energy?

A)J/S

B)J

C)KWh

D)W

**CORRECT OPTION: (C) KWh**

Q7 what is the cost of electric Energy consumed by a zero Watt bulb of 15 W in a month if it is lighted for 6h a day. If the cost is Ps 10 per unit

A)Rs 18

B)Rs 27

C)Rs 54

D)Rs 36

**CORRECT OPTION:(B) Rs 27**

Feedback: Electric Energy = Power *Time
E.E consumed in 1 day = 15/1000*6 KWh
E.E consumed in 30 days = 0.09 * 30 = 2.7 KWh = 2.7unit
Cost of E.E consumed = 2.a7* 10 = Rs27

Q9 Assertion(A): Electric motar converts electric energy into mechanical energy.

Reason(R): Mechanical Energy is equal to kinetic energy.

A)Both A and R are true and R is correct explanation of A

B)Both A and R are true and R is not correct explanation of A

C)A is true and R is false

D)A is false R is true

**CORRECT OPTION: (C) A is true and R is false**

Q10 What type of work is done by earth when it moves around the Sun?

A)Positive work

B)Negative work

C)Zero work

D)None of these

**CORRECT OPTION: (C)**

Feedback: The displacement of the earth is perpendicular to the gravitational force of Sun,. When displacement is perpendicular to the force , the Work done is zero.