Name of Student	Class	Subject	Board	Chapter
	9th	Physics	FB	06
Date :_____	Objective			Teacher Remarks

Section - A

Q. No.1:- Circle the correct option. Each part carries one mark.

01	The work done will be zero when the angle between the force and the distance is:						
a	45^0	b	60^0	c	90^0	d	180^0
02	If the direction of motion of the force is perpendicular to the direction of motion of the body, then work done will be:						
a	Maximum	b	Minimum	c	Zero	d	None of the above
03	The work done in lifting a brick of mass 2 Kg through a height of 5 m above ground will be:						
a	2.5 J	b	10 J	c	50 J	d	100 J
04	If the velocity of a body becomes double, then its kinetic energy will:						
a	Remain the same	b	Become double	c	Become four times	d	Become half
05	The kinetic energy of a body of mass 2 kg is 25 J. its speed is:						
a	$5ms^{-1}$	b	$12.5ms^{-1}$	c	$25ms^{-1}$	d	$50ms^{-1}$
06	Which one of the following converts light energy into electrical energy?						
a	Electric bulb	b	Electric generator	c	Photocell	d	Electric cell
07	When a body, is lifted through a height h, the work done on it appears in the form of its:						
a	Kinetic energy	b	Potential energy	c	Elastic potential energy	d	Geothermal energy
08	The energy stored in a dam is:						
a	Electric energy	b	Potential energy	c	Kinetic energy	d	Thermal energy
09	the energy stored in coal is:						
a	Heat energy	b	Kinetic energy	c	Chemical energy	d	Nuclear energy
10	In Einstein's mass-energy equation, c is the:						
a	Speed of sound	b	Speed of light	c	Speed of electron	d	Speed of Earth
11	Rate of doing work is called:						
a	Energy	b	Torque	c	Power	d	Momentum
12	Efficiency of petrol Engine is_____:						
a	25%	b	35%	c	26%	d	30%

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Section - B

Q. No.1:- Attempt any eleven parts. The answer of each part should not exceed 3 to 4 lines. (11×3=33).

01	**Define work. What is its SI unit?**	**02**	**When does a force do work? Explain.**
03	**Define energy, give two types of mechanical energy.**	**04**	**Which form of energy is most preferred and why?**
05	**Name the five devices that convert electrical energy into mechanical energy.**	**06**	**A block weighing 20N is lifted 6m vertically upward. Calculate the potential energy stored in it.**
07	**What is meant by the efficiency of system?**	**08**	**How can you find the efficiency of a system?**
09	**What is meant by the term power?**	**10**	**Define watt.**
11	**Describe nuclear energy with examples?**	**12**	**How energy is obtained from sun?**
13	**Describe the harmful waste products released by fossil fuels?**	**14**	**A man pulls a block with a force of 300 N through 50 m in 60 s. find the power used by him to pull the block.**
15	**State mass energy equation $E= mc^2$**		

Q. No.4:- Attempt any TWO questions. All questions carry equal marks: (2×10=20)

Q. No.1:- (a).Define K.E. and derive its relation.

(b).A 500 g stone is thrown up with a velocity of $15ms^{-1}$. Find its:

A: P.E. at its maximum height B: K.E. when it hits the ground

Q. No2:- (a).How is energy converted from one form to another? Explain.

(b).A car weighing 12 kN has speed of 20ms-1. Find its kinetic energy.

Q. No.3:- (a).List the environmental issues associated with energy. Highlight the solution of these issues?

(b).Calculate the power of a pump which can lift 200 kg of water through a height of 6 m in 10 seconds.