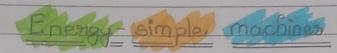
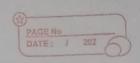


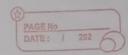
Chapter-4



- 1- One word for the following.
- 1- The point about which a lever can turn fulcrum
- 2- force applied to a machine
 - 3-Useful work done by the machine
 - 4- A combination of two or more inclined planes wedge
 - 5- Distance through which a screw advances in one complete rotation



- c. Define these terms
- 1- Mechanical advantage :- Rotio of the load to
 - 27 Input :- Work done (on energy supplied) on a
- 3-Output = Worth done (energy stimported) by a
- 4- Efficiency of a machine = Ratio of output to input.



-	Chech point - I
	Answer these question.
	What is simple machine?
	A simple machine is a tool that help us in doing our work more easily and efficiently.
1	Can a machine change the speed? If yes, give an example.
	Yes machine like bicycle can change the speed.
	Name three simple machine
	Levos, wedge, pulley
)	In which class of lever is the mechanical advantage is always less than one.
	III. daze leveri.

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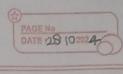
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-	
	Check point - 7
	Answer these question.
(0)	What is simple machine?
Ings	A simple machine is a tool that help us in doing our work more easily and efficiently.
(b)	Can a machine change the speed? If yes, give an example.
n&	Yes machine like bicycle can change the speed.
(c)	Name three simple machine
Ins	Levos, wedge, pulley
(d)	In which class of leven is the mechanical advantage is always less than one.
dns	III. dors leves.



_	Check point - 2
	Answer these question.
1	Give any two applications of indined plane.
18 0	A gang plank is provided to unload the cargo from a sailing ship.
>	cargo from a sailing ship. The playground slide is yet another example of the inclined plane.
_	What is a wedge?
Ing	A wedge is a simple machine that has two on more inclined surfaces which taper either to form a sharp edge or a pointed edge.
3	goods in a truck on in a railway wayon?
enk	Inclined plane.
4	Is a player an example of an inclined plane on a wedge?
ln8	wedge

Check point-3 Answer these question. I Name different types of pulleys? (b) Single fixed pulley.

(c) A combination of fixed and movable pulley. 2-What do you mean by a pitch of a screw? dns Space between the two consecutives threads in a screw is called pitch. 3- What you turn the door Knob of your house? dns Wheel and axle 4- Why should machine be lubricated negularly? wear and teast of the machine. 5- How can a machine be protected from dust and moisture? dry It should be coresied when not in use.

Differentiate between the following

1- Second class

Third dass

In a second class lever load lies between the fulction and the effort

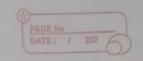
In the third class, The effort lies between the load and fulcrum.

2- Simple machine

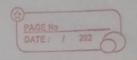
complex machine

A simple machine is a tool that helps us in doing own work more easily and efficiently. It has no energy of it's own and so it can not do work by itself. When we perform action on a machine then the machine will inture, perform work on some other object

There are machine in which two or more simple machine work together. Such machines are called complex machine.



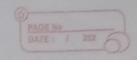
3- Indined plane Scarew A inclined plane is a A scriew is a inclined. sloping surface which plane wrapped in a makes our work spinal thread around a mod on a shaft easter and faster 4- Single fixed pulleys Single morable The simplest form of Another simple form pulleys is called the of pulleys is the single fixed pulleys . In single movable pulley. In this type of pulley, this pulleys, the axle is fixed to a sigid supposit one end of the stope is called the block. The fixed to the sigid fixed to the nigid load to be raised is supposit and the effort is applied at the another. attached to the one end end of the stope. The of suope and effort load is attached to is applied at other the pulley



E	Answer these question
ques-1	State any three functions of simple machine?
•	A machine multiplies force. A machine can change the speed. A machine helps to change the direction of the force.
ques-2	List any four types of simple mochines.
alns	Types of simple machine:
•	Schew Lever: first class lever. Second class Lever Third class lever Inclined plane Wedge
0	Pulley: fixed pulleys. Morable pulleys Wheel and axle
Ques-3	What is the principal of lever? Write expression for its mechanical advantage.
dns	According to the te principal of a lever, the turning effect of the effort at the fulction should be equal to the turning effect of the boad at the fulction. In a simpler form. Effort X Effort arm = Load x wal
	Dod X bood = mrs troff X traff = ann

Mechanical advantage. MA = Effort asim (a)
Load asim (b) Ques-4 Describe the three types of levers? tinst class leven - When the fulcoum of a leven Ans lies between the load and the effort it is called first dass lever ex-Second class leven - When the Load on a leven lies between the fulcyon and efforit it is called a second class leven ex-Third class lever : When the effort on a lever lies between the fulcrum and the load it is called a third class lever ex-Ques-5 Name any two simple machine in each case in which we. (w) multiply force - Screw jack, inclined plane. (b) apply force in a convenient direction - Pulley, Lemon squezer Schew driver. Ques-6 Crive few examples where the concept of an inclined plane is used to multiply force? Ans . A going plant is provided to unload the cargo from a sailing ship.

The playground stide is yet another example of the inclined plane.



Ques-7	State the construction of a single fixed pulley. How does it help us?
alns	A pulley is a flat metalic on wooden circular disc with a groove on it's edge. A rope pases through the groove. The pulley is capable of rotataing around its central axis called an axle. The main advantage of the pulley is that it allows us to apply effort in convenient downward direction for pulling a load in upward direction.
Ques -8	What is the principle of screw? Give any two examples of screw.
odna D	When the screw makes one complete rotation, it advances a distance equal to the space between the two consecutive threads. Screw are used to fit doors in door frames. A conk screw is used to pull out the conk from a sealed bottle.
Ques-9	Give three examples of wheel and axle.
	Three examples are in Bicycle pedal Water top Door Khob

	DATE: 7 ZUE
Ques-10	List the ways by which proper maintainance of machines can be ensured?
odns >	Inor parits of a machine should be painted to prierent rusting.
>	It is desirable to adjust the moving parts
	of a machine from time to time.
•	Machines should be negularly cleaned and check up for any deficiency.
	op 1071 dity delictency

	Give odd one out
1-	Beam Balance, handle of a handpump, spade and crowbar.
dns	Spade is a third class levers and others are first class lever.
2-	Nut cracker. wheel barrenow. bottle-opener, a pair
Ans	Plien is a finat class leven and other age second class leven.
3-	Inclined plane lever some jack pulley untoh
	Watch is a complex machine and other are
4-	Ramp, wooden plank, winding, hill groad, somew driver.
ohs	Screwdriver is an example of wheel and axle machine others are inclined plane.
5-	Inon noil, sewing needle, screw, are and chisel
odn3	Sonew is a simple machines and other ane wedge type of machines.