



Name _____ Class _____ Roll no. _____ Date _____ Marks _____ / 30

1 Key words**[3]**

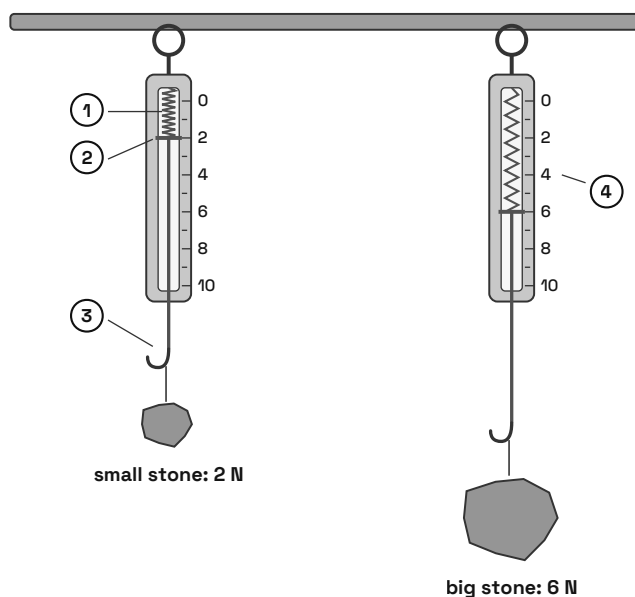
Fill in the blanks with words from the box. One word in the box is not needed. Each blank carries 0.5 mark.

complex machine curvilinear easy force linear motion newton

The state in which a body changes its position compared with the objects around it is the state of _____. The push or pull that changes the state of rest or motion of a body is called _____. The SI unit of force is the _____. The motion of a bullet fired from a gun is _____ motion. A simple machine makes our work _____ and faster. A tool made of many simple machines working together is a _____.

2 Label the diagram**[2]**

The diagram shows a spring balance. Write the names of the parts numbered 1 to 4. Each carries 0.5 mark.



1. _____

2. _____

3. _____

4. _____



3 Match the following

[3]

Match each use of force in Column A with its effect in Column B. Write the letter in the box. One effect in Column B is not needed. Each match carries 0.5 mark.

Column A

1. kicking a ball lying on the ground
2. a goalkeeper catching the ball
3. pushing a moving swing harder
4. a batsman hitting a cricket ball
5. rolling dough into a roti
6. blowing up a balloon

Column B

- | | |
|----------------------|---|
| <input type="text"/> | a. a body gets hotter |
| <input type="text"/> | b. the size of a body changes |
| <input type="text"/> | c. the shape of a body changes |
| <input type="text"/> | d. the speed of a moving body changes |
| <input type="text"/> | e. the direction of a moving body changes |
| <input type="text"/> | f. a body at rest starts moving |
| | g. a moving body comes to rest |

4 Multiple choice

[5]

Choose the correct option for each of the following questions.

- i. A book lies on the seat of a moving bus. Compared with the bus, the book is... [1]
 - a. at rest
 - b. in motion
 - c. moving backwards
 - d. moving faster than the bus
- ii. Which of these is **curvilinear** motion? [1]
 - a. a stone falling straight down
 - b. a car on a straight road
 - c. a swing moving to and fro
 - d. a marble rolled along flat ground
- iii. Which instrument measures force? [1]
 - a. a thermometer
 - b. a measuring tape
 - c. a spring balance
 - d. a stopwatch
- iv. When you cut wood with a khukuri, where is your force applied, and where is the work done? [1]
 - a. both at the sharp edge
 - b. force on the handle, work at the sharp edge
 - c. force on the sharp edge, work at the handle
 - d. both on the handle
- v. Which of these is a simple machine? [1]
 - a. a motorcycle
 - b. a tractor
 - c. a pair of scissors
 - d. a bus

5 Very short answers

[3]

Write very short answers to the following questions.

- a. Define force. [1]



b. What is transformation of force? [1]

c. What kind of motion does the tip of a clock's hand have? [1]

6 Short answers [8]

Write short answers to the following questions.

a. Write any two differences between linear motion and curvilinear motion. [2]

b. How are rest and motion relative terms? Explain with an example. [2]

c. Why is a pulley used to draw water from a deep well? Give two reasons. [2]

d. Write any two main uses of simple machines. [2]

7 Long answer [4]

Write a long answer to the following question.

List any four effects of force, with an example of each.



8 Think

[2]

Think, then answer.

How does transformation of force take place when you sweep with a broom at home?

9 Activity: Where is the effort, and where is the work? (Activity 6.10) (not marked)

Watch people using these tools. Write where the effort is applied and where the work is done.

Tool	Where the effort is applied	Where the work is done
axe		
spade (kodalo)		
bicycle brake		
pair of scissors		

