



Test Date

TURNING ON A PIVOT; LIVING THINGS IN THEIR ENVIRONMENT; FINDING THE AGE OF THE EARTH

CLASS	SECTION	EXAM CODE
8	A	4286702
8	B	7288382
8	C	6886892

SCHOOL

School Name

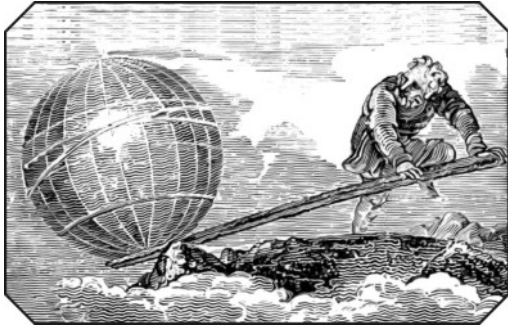
1. There are 17 questions in the paper. All are compulsory.
2. Tick or circle the option which is your answer.
3. Show your working on a separate sheet of paper wherever you need to.
4. Please check your answers carefully before submitting the test. Once submitted, the answers CANNOT be changed.



Q: 1 The turning effect produced by a force around a fulcrum is called the _____.

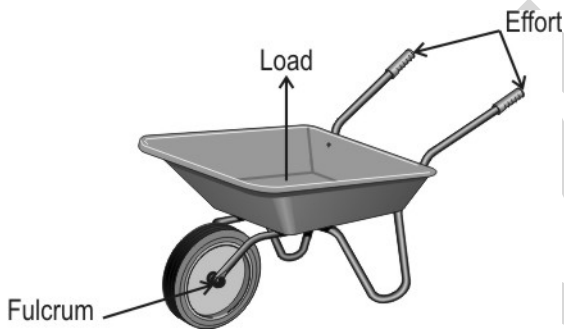
- 1** load of force
- 2** effort of force
- 3** moment of force
- 4** multiplier of force

Q: 2 More than 2000 years ago, Archimedes is supposed to have said "Give me a place to stand, and I shall move the world." What machine was he planning to use?

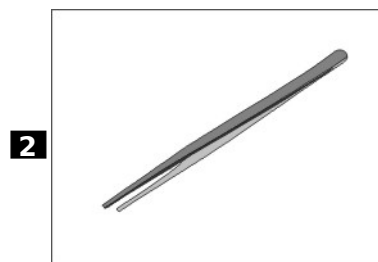


- 1** Crane
- 2** Pulley
- 3** Inclined plane
- 4** Lever

Q: 3



Shown above is a figure of a wheelbarrow with the effort, load and fulcrum indicated. Which of the following simple machines belongs to the same class as the wheelbarrow?



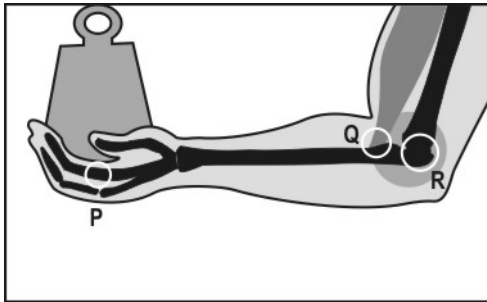


Q: 4 Each lever has a unique application. Study the figure of a pair of tweezers. Why would a lever of this order be used?



- 1** The force (effort) needs to be increased.
- 2** The force (effort) needs to be controlled.
- 3** The load lifted has to be increased.
- 4** The work done has to be decreased.

Q: 5 When we lift weights we use our muscles to do work. The hand is an example of a lever. Identify which is the fulcrum and where is the effort applied in the figure shown below.



- 1** fulcrum is at Q and the effort is at P
- 2** fulcrum is at R and the effort is at Q
- 3** fulcrum is at P and the effort is at R
- 4** fulcrum is at R and the effort is at P

Q: 6 What type of a lever system is a tennis racquet in its regular use?

- 1** a class-1 lever
- 2** a class-2 lever
- 3** a class-3 lever
- 4** (it is not a lever)

Q: 7 Which of these pairs of levers belongs to the same class?

- 1** a can-opener and tweezers
- 2** a tennis racket and a fishing pole
- 3** a nut cracker and a seesaw
- 4** a bottle-opener and scissors

Q: 8 Which of these MAINLY helps a frog to capture a flying insect?



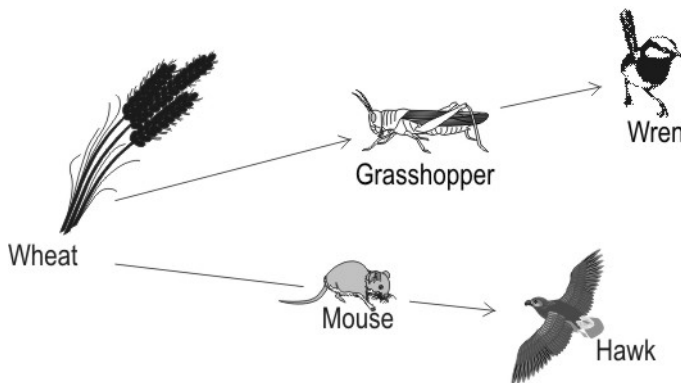
- 1** Long, powerful legs
- 2** Teeth in the upper jaw
- 3** Long sticky tongue
- 4** Webbed hind feet.



Q: 9 Factors in a habitat are classified into abiotic and biotic depending on whether they are _____.

- 1** present or absent **2** non-living or living **3** plants or animals **4** able to move or not

Shown below is a food chain on a farm.



Answer the following two questions based on this food chain.

Q: 10 Something occurred in this food chain due to which the number of mice DECREASED. Which of the following could have occurred for this to happen?

- 1** a decrease in the number of grasshoppers **2** a decrease in the amount of wheat grown
3 an increase in the number of wrens **4** a decrease in the number of hawks

Q: 11 In this food chain, wrens get their energy from the grasshoppers that they eat and grasshoppers get their energy from the wheat that they eat. How do plants, like wheat, get the energy to make food?

- 1** Plants get the energy from other plants.
2 Plants do not need energy to make food.
3 Plants get the energy to make food from the Sun.
4 Plants get the energy from the animals around them.

Q: 12 Which of the following features is necessary for a region to be called a desert?

P. It should be covered with sand.

Q. It should be very hot.

R. It should receive very little rainfall or snow.

- 1** only P **2** only Q **3** only R **4** all - P, Q and R

Q: 13 All plants lose a lot of water through their leaves. In some places, summer is a season when it is hot and dry. In other places, winter is a cold and dry season.

Some trees save water during the dry season by _____.

- 1** storing water in fruits and flowers **2** not growing at all during this time
3 growing fresh new leaves once a year **4** shedding their leaves during this time



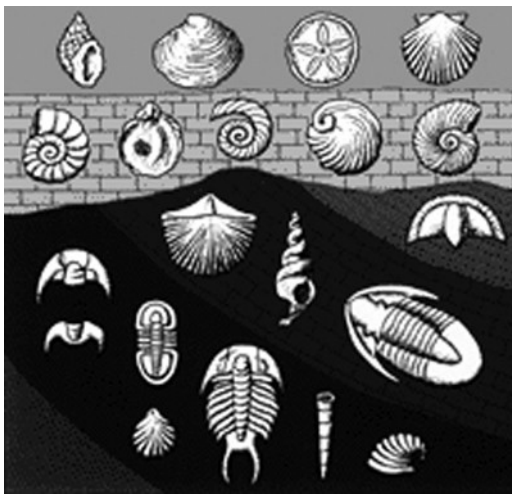
Q: 14 When a scientist finds a fossil, he is able to determine approximately how long ago the animal existed. A working knowledge of which of the following areas would BEST enable him to do this?

- 1** genetics
- 2** radioactivity
- 3** cell biology
- 4** molecular biology

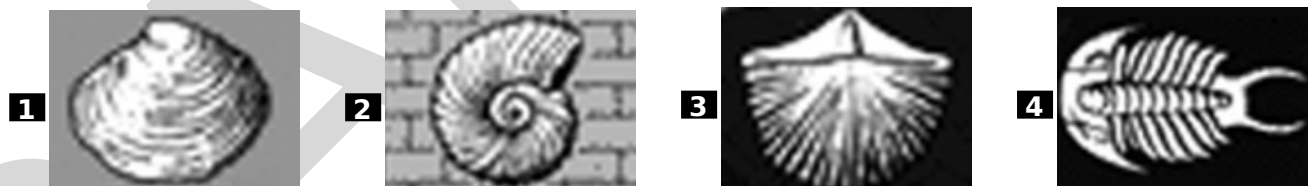
Q: 15 Which of these body parts is LEAST likely to be found in a fossilized form?

- 1** teeth
- 2** nails
- 3** exoskeleton
- 4** muscle tissue

Q: 16 Shown here is a cross-section of a rock formation. It shows the fossils that are present in the different layers.



Based on the above graphic, which of the following fossils is likely to be the OLDEST?



Q: 17 Evolution can be seen in the fossil record in which of the following ways?

- 1** Organisms in the fossil record are identical to living organisms present now.
- 2** All individual species appeared in the fossil record at the same time.
- 3** The fossil record provides evidence that organisms have changed over time.
- 4** The fossil record provides evidence that all organisms developed on land.