phenomenon.

1. The author focuses primarily on _____.

A. two competing scientific models concerning the sun's magnetic field

B. an overview of some recent scientific developments in solar physics

C. the reasons why a problem in solar physics has not yet been solved

D. the difficulties involved in linking terrestrial climate with solar activity

2. According to the passage, for which of the following reasons are the late seventeenth-and early eighteenth-century Chinese records important?

A. They disprove the reality of the Maunder minimum.

B. They suggest that the Maunder minimum cannot be related to climate

C. They verify the existence of a span of unusual cold during the Maunder minimum.

D. They show that the European observations are of dubious statistical significance.

3. On which of the following assumptions is based the belief that tree-ring thickness shows links between solar periodicity and terrestrial climate?

A. solar-activity cycle existed in its present form during the period in question.

B. Average tree-ring thickness varies from species to species.

C. Tree-ring thickness varies with changes in terrestrial climate.

D. Both terrestrial climate and solar-activity cycle affect tree-ring thickness.

TEXT B

Patents, prices and politics—these three forces have stymied efforts to provide advanced drugs to people with HIV and AIDS in the world's poorest countries but have been slowly easing their grip.

A recent change in world trade rules could help to stimulate the production of so-called anti-retroviral drugs, which have revolutionized AIDS treatment in developing nations, at costs that poor countries can better afford.

As the production of generic AIDS drugs increases, manufacturers—both the big pharmaceutical companies that hold the patents on these treatments and the makers of cheaper generic alternatives—are cutting prices. And there are even signs of an emerging political will to deal with the AIDS crisis in sub—Saharan Africa, home to 25 million to 28 million people living with HIV, the virus that causes AIDS.

Though plenty of hurdles remain, these developments have provided at least a

few rays of hope as organizations like the World Health Organization and UNAIDS embark on an effort to provide anti-retroviral treatment to three million AIV-infected people by 2005.

Though the big drugmakers are lowering their prices for developing countries, much of the new supply will probably come from generic makers, experts say. Generic drugmakers can make medication regimes simpler, experts say, by producing triple-therapy treatments all in one pill, something that is difficult for the patent holders to do because each of the three components may be produced by a different company.

The generic market in AIDS drugs has developed slowly since an agreement under the World Trade Organization in 2001 created a framework for poor countries to, in effect, override the patents and make the drugs for their home markets. In some cases, countries where no such manufacturing capability existed have been able to import them.

There was a hitch, however, until recently: the limited exports of generic drugs from one country to another, such as the sales of Indian-made therapies in Africa, would technically have been outlawed in coming years under new global rules governing intellectual property.

With the prospect of increased generic supply looming, the big pharmaceutical companies have announced a series of deals in which they will supply patented drugs used in combination therapy at significantly reduced prices.

With the debate over the WTO rule change settled, "now we can get onto the real issues that will help people get access to better health care," said Mark Grayson, spokesman for PhRMA, the U.S.pharmaceutical industry lobbying group.

In addition to price, Grayson said, those issues include inadequate health care systems, with bad training and a severe shortage of health care professionals, in many poor countries.

Because generic manufacturers provide less support than the brand-name makers, their AIDS drugs sometimes languish on the shelves of African warehouses, he said, and then have to be discarded because they have passed their expiration date.

The industry continues to fight effort to undermine patent protection, arguing that it is needed to ensure a flow of revenue that supports research and development for new drugs.

Advocates for AIDS patients are also worried that bilateral trade agreements

between the United States and other countries will be used to impose tougher patent protection, even after the WTO agreement in August removed a major barrier.

4. According to the first paragraph which of following statements is NOT true?

A. people with HIV and AIDS in the world's poorest countries haven't received enough advanced drugs.

B. Patents, prices and politics—these three forces preventing advanced drugs. from being provided to the world's poorest countries.

C. These three forces are now gradually loosing their control.

D. These three forces have lost their power.

5. What is NOT the difference between pharmaceutical companies and generic makers?

A. Pharmaceutical companies hold the patents while generic makers don't.

B. Generic drugmakers can make medication regimes simpler than pharmaceutical companies.

C. Generic drugmakers lower prices of drugs while pharmaceutical companies don't.

D. Generic drugmakers produce much more new supply than pharmaceutical companies.

6. The major barrier of importing and exporting generic drugs now is_____.

A. new global rules over patent

B. that some countries have no such manufacturing capability

C. the agreement under the World Trade Organization 2001

D. that the production of generic drugs is on the decline

7. To ensure people's access to better health care we have to_____.

A. better health care systems

B. lower drug prices

C. increase the number of well-trained health care professionals

D. all of the above

8. This passage can be best titled as_____

A. New Hope for the World's Poorest Countries

B. Obstacles to Drugs are Being Eased

C. Clear Up the Barrier

D. The Latest Situation of World's Pharmaceutical Industry

TEXT C

We sometimes think humans are uniquely vulnerable to anxiety, but stress seems to affect the immune defenses of lower animals too. In one experiment, for example, behavioral immunologist Mark Laudenslager, at the University of Denver, gave mild electric shocks to 24 rats. Half the animals could switch off the current by turning a wheel in their enclosure, while the other half could not. The rats in the two groups were paired so that each time one rat turned the wheel it protected both itself and its helpless partner from the shock. Laudenslager found that the immune response was depressed below normal in the helpless rats but not in those that could turn off the electricity. What he has demonstrated, he believes, is that lack of control over an event, not the experience itself, is what weakens the immune system.

Other researchers agree. Jay Weiss, a psychologist at Duke University School of Medicine, has shown that animals who are allowed to control unpleasant stimuli don't develop sleep disturbances or changes in brain chemistry typical of stressed rats. But if the animals are confronted with situations they have no control over, they later behave passively when faced with experiences they can control. Such findings reinforce psychologists' suspicions that the experience or perception of helplessness is one of the most harmful factors in depression.

One of the most startling examples of how the mind can alter the immune response was discovered by chance. In 1975 psychologist Robert Ader at the University of Rochester School of Medicine conditioned mice to avoid saccharin by simultaneously feeding them the sweetener and injecting them with a drug that while suppressing their immune systems caused stomach upsets. Associating the saccharin with the stomach pains, the mice quickly learned to avoid the sweetener. In order to extinguish this dislike for the sweetener, Ader reexposed the animals to saccharin, this time without the drug, and was astonished to find that those mice that had received the highest amounts of sweetener during their earlier conditioning died. He could only speculate that he had so successfully conditioned the rats that saccharin alone now served to weaken their immune systems enough to kill them.

9. Laudenslager's experiment showed that the immune system of those rats who could turn off the electricity _____.

A. was strengthened B. was not affected

C. was altered D. was weakened

10. According to the passage, the experience of helplessness causes rats to _____.

A. try to control unpleasant stimuli

B. turn off the electricity

C. behave passively in controllable situations

D. Become abnormally suspicious

11. The passage tells us that the most probable reason for the death of the mice in Ader's experiment was that _____.

A. they had been weakened psychologically by the saccharin

B. the sweetener was poisonous to them

C. their immune systems had been altered by the mind

D. they had taken too much sweetener during earlier conditioning

12. It can be concluded from the passage that the immune systems of animal _____.

A. can be weakened by conditioning

B. can be suppressed by drug injections

C. can be affected by frequent doses of saccharin

D. can be altered by electric shocks

TEXT D **Ruining Pompeii**

Vandals, tourists and political corruption take a toll on the ancient site

In all of antiquity there is no more poignant record of the death of a family than a group archeologists simply call "the fugitives." They were nine adults and children who tried to flee the eruption of Mount Vesuvius that buried Pompeii in A.D. 79 by taking refuge in the attic of a house on Via Castrici. The plaster casts that archeologists made preserved even the fugitives' facial expressions. A pregnant woman lay on her back. Her husband covered her mouth with his own and pulled a cloak around them--mouth-to-mouth resuscitation against poison fumes or a desperate last kiss? At his back lay one baby, curled up tightly; at her feet lay another, sprawled on its back. In 1991, when these fugitives were first discovered, the anguished expressions on their faces were visible to those few visitors allowed to see them. This month, a return to the site yielded a final horror: local vandals had lopped off the fugitives' heads and tossed them into the bushes.