 Smart Window Windows not only let light in to cut down an electricity use for lighting， but the light coming through the window also provides heat.However， windows are not something people typically associate with being a cutting edge1 technology.Researchers are now working on new technologies that enable a window to quickly change from clear to dark and anywhere in between with a flip of a switch2. “ It took us a long time to figure out what a window really is，” says Claes Granqvist.He ’ s a professor of solid-state physics at Uppsala University in Sweden3. “ It ’ s contact with the outside world.You have to have visual contact with the surrounding world to feel well. ” So， windows and natural light are important for improving the way people feel when they ’ re stuck indoors. Yet， windows are the weak link in a building when it comes to energy and temperature control.In the winter， cold air leaks in.When it ’ s hot and sunny， sunlight streams in.All of this sunlight carries lots of heat and energy.And all of this extra heat forces people to turn on their air conditioners.Producing blasts of cold air， which can feel so refreshing， actually suck up enormous amounts of electricity in buildings around the world. Windows have been a major focus of energy research for a long time. Over the years， scientists have come up with a variety of strategies for coating， glazing， and layering windows to make them more energy efficient.Smart windows go a

step further.They use chromogenic technologies which involve changes of color. Electrochromic windows use electricity to change color.For example， a sheet of glass coated with thin layers of chemical compound such as tungsten oxide works a bit like a battery.Tungsten oxide is clear when an electric charge is applied and dark when the charge is removed， that is， when the amount of voltage is decreased， the window darkens until it ’ s completely dark after all electricity is taken away.So applying a voltage determines whether the window looks clear or dark. One important feature that makes a smart window so smart is that it has a sort of “ memory. ” All it takes is a small jolt of voltage to turn the window from one state to the other.Then， it stays that way.Transitions take anywhere from 10 seconds to a few minutes， depending on the size of the window.The development of smart windows could mean that massive air conditioning systems may no longer need. “ In the future, ” Granqvist says, “ our buildings may look different. ” 词汇：flip/flip/n.amp. v.震摇，颠簸，晃动 refreshing/ri5freFiN /adj.使人清爽的 electrochromic adj.电致变色的 glaze/leiz/v.装玻璃，用玻璃覆盖 voltage/5vEJltIdV/n.电压 chromogenic adj.发色的 air conditioning 空调，空调系统 注释： 1. cutting edge：本意为“ (刀片的)刃口，刀刃 ”.比喻意为“ 最先进的，科技含量最高的 ”。 2. anywhere in between witha flip of a switch：就在开或关的一霎那。 3. Uppsala University in Sweden：瑞典的乌普萨拉大学。乌普萨拉是瑞典东部一座城市，位于斯德哥尔摩的西北方向。 练习： 1. Which of the following statements does not indicate the importance of windows as described in the first two

paragraphs? A Windows can change from clear to dark to save energy. B Windows help to save energy by letting light in. C Windows help to save energy by providing heat. D Windows enable people to have contact with the outside world. 2. When are windows the weak link in a building? A In the cold winter. B In the hot summer. C When air conditioners are turned on. D Both A and B. 3. What are smart windows，according to Paragraph 4? A Windows that are coated. B Windows that are glazed. C Windows the color of which can be changed. D Windows that have many layers. 4. To make electrochromic windows change color，what is applied to the window glass? A Electricity. B Tungsten oxide. C A battery. D A voltage. 5. What will he the benefit if the research on smart windows turns out to be successful，according to the last paragraph? A The buildings will look different. B Windows can be as large as you want. C We may not need air conditioners any more. D They are less expensive than traditional windows. 答案与题解： 1. A 第一段告诉我们窗户因为让阳光进入房间，并且为房间提供热源，所以节约了能源。第二段说，窗户使人们能接触外部世界。所以B、C和D都说明了窗户的重要性。第一段最后一句说，研究者正在实验能让窗户变换亮度，但并没有说已经实验成功，所以A是错误的说法，是正确选择。 2. D 短文第三段的第一句说：windows are the weak link in a building，接下来是对这句话分寒冬和炎夏做了说明。所以D是正确选择。 3. C 第四段告诉我们，多年来，科学家已研究出多种通过窗户节能的办法，而smart windows 使用的技术使窗户能变换颜色。所以C是正确选择。 4. B 第五段第二句提供了答案。a sheet of

glass coated with thin layers of chemical compound such as tungsten oxide中的coated是“涂上一层薄薄的……”的意思。 5. C 短文最后一段的第五句提供了答案。 相关推荐：把职称英语页面加入收藏 2009年职称英语考试成绩查询汇总 2009年职称英语考试试题及答案点评专题 编辑推荐： 为帮助广大学员有效备考，我们特推出了职称英语2010年网络辅导课程,相信会让大家有耳目一新的视听感受。现在报名职称英语辅导，赠送2009年精品课程及考试E币。点击查看详情》 100Test 下载频道开通，各类考试题目直接下载。详细请访问 www.100test.com