A. Please read the following news story carefully before answering questions. (40 points)

The Supreme Court wrestled today with how to apply the Fourth Amendment's ban on unreasonable searches to a technological development the Constitution's framers most likely did not have in mind: a thermal imaging device that the police can use from outside a home to detect patterns of heat being generated from inside.

The specific question in the hour long argument was whether use of a thermal imager by the police is a search that, no less than an actual entry into a house, requires a warrant.

Under the court's precedents, the Fourth Amendment protects only those expectations of privacy that are "reasonable." Someone who conducts business in front of an open living room window, for example, may be deemed to have forfeited any reasonable expectation of privacy.

In the case today, Kyllo v. United States, No. 99-8508, the lawyer for an Oregon man convicted of growing marijuana in his home argued that the police engaged in an illegal search by using a thermal imager to detect the distinctive heat pattern made by the high-intensity lights that are often used for marijuana cultivation. The police used the information as the basis for obtaining a warrant to search the house.

People have a reasonable expectation of privacy in what goes on behind the opaque walls of their homes, the lawyer, Kenneth Lerner, told the justices.

What the thermal imager captures "really is molecular information that migrates through our walls," Mr. Lerner said, adding, "If we are now saying that we can capture that kind of information without a warrant, we can reduce our whole world to that type of wave and molecule, and our walls mean nothing."

But Michael R. Dreeben, a deputy solicitor general arguing for the government, said people did not have a reasonable expectation of privacy "in the heat that's on the exterior surface of their walls."

"Heat loss is an inevitable feature of heat in a structure," Mr. Dreeben said. "That's why there is an insulation industry."

Justice Stephen G. Breyer objected that the expectation of privacy "is not in heat loss, it's in what is going on in the house."

Justice Breyer said the question was whether "you have a reasonable expectation that the kind of thing you're doing in the house will not be picked up by somebody out of the house, not a law enforcement officer, but just ordinary people."

"Where you're walking in front of the window," he continued, "the answer is no. Where you're walking in front of the window and people pick it up with binoculars — every bird-watcher has binoculars. Where they're picking it up with flashlights — every Boy Scout has a flashlight. Who has a heat thermal device? Nobody, except a few."

Justice Breyer said it was at least open to argument whether people had a valid expectation of privacy that when they took a long hot bath, that fact would not be disclosed to the world by the use of a thermal imaging device.

Mr. Dreeben replied that while the device can detect heat, "it will not tell you what's going on inside the house."

Justice Breyer was not satisfied. "It'll just tell you it's hot in there, which happens to be just the thing they want to know," he said. "They want to know if it's hot or if it's cold."
Mr. Lerner, representing the defendant, Danny Lee Kyllo, also came in for tough questioning.

"Why don't your reasonable expectations of privacy include technology?" Justice Antonin Scalia wanted to know. Inasmuch as there are thermal imagers in the world, why not expect people to guard against them just as "you pull your curtains if you want privacy because you know people have binoculars," Justice Scalia said.

"The burden," Mr. Lerner said, "really is improperly placed on the citizen to anticipate what type of technology the government may come up with."

Justice David H. Souter asked: "Are you saying, in effect, that if thermal imaging becomes very common and every school kid has a $5 thermal imager, that at that point it really would be unreasonable not to expect that the government was going to use it to figure out what's going on in the house?"

Mr. Lerner said the court would then have to step in just as it has to prevent indiscriminate use of wiretapping, a technology that everyone knows is available yet is still regarded as an unconstitutional invasion of privacy except in limited circumstances.

Mr. Lerner's client entered a conditional guilty plea while challenging the use of the thermal imager. He first won his case before the United States Court of Appeals for the Ninth Circuit, in San Francisco, but the appeals court changed its mind and issued a new opinion after one of the original members of the three-judge panel retired. Mr. Kyllo served a month in jail on his marijuana conviction.

The court issued a decision today in another Fourth Amendment case, ruling 8 to 1 that police officers who have probable cause to search a home for easily destroyed contraband can keep a suspect from entering his own home during the brief time it takes to get a search warrant.

(Note: the text of the Fourth Amendment of U.S. Constitution: The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.)

Questions:
(Question 3 and 4 may be answered in either Chinese or English. Questions 1 & 3 are single-choice, and a 1-point penalty will be assessed to each wrong answer.)

1. The last paragraph states "[t]he court issued a decision ...." Which court is it referring to? (5 points)
   A) the Supreme Court of the United States
   B) the United States Court of Appeals for the Ninth Circuit, in San Francisco
   C) Neither of the above?

2. Which of the following statement is correct according to the story? (5 points)
   A) Lerner Kyllo was prosecuted for growing marijuana at his home by the federal government.
   B) Scalia was skeptical about the appellee's claim.
   C) Kyllo v. United States, No. 99-8508 was decided 8 to 1 in favor of the appellant.
D) The police searched Kyllo’s house with a warrant.

3. What is the main underlying issue of the case, given the questions and answers before the court as reported in the story? (15 points)

4. Since the case is about the due process when conducting “search and seizure,” why did Justice Souter care about if the same device will be available to every school kid someday? (15 points)
B. Please read the following article and answer questions in English. (30 points)

**Biologists Sought a Treaty; Now They Fault It**

By ANDREW C. REVKIN

A treaty enacted nine years ago to conserve and exploit the diversity of species on earth is seriously impeding biologists’ efforts to catalog and comprehend that same natural bounty, many scientists say.

They say the treaty has spawned paralyzing biological bureaucracies built on the widespread belief that any scientist collecting samples -- whether for a drug company or a dissertation -- is bent on stealing genetic material and making a fortune.

As a result, biologists say, in many tropical regions it is easier to cut a forest than to study it.

"Something that was well intentioned and needed has been taken to an illogical extreme," said Dr. Douglas C. Daly, a curator of Amazonian botany at the New York Botanical Garden, who has worked in Brazil for 20 years in partnerships with Brazilian scientists, but recently had to wait a year and a half for a new research visa.

"The net result has been that it's kept biologists out of the forests," Dr. Daly said. "That plays into the hands of the forces of uncontrolled development. If a tree falls in the forest and there's no biologist there to hear it, it definitely doesn't make a sound."

Some officials in restrictive countries have begun to concede as much. For example, Brazil, which in 2000 stopped all exports of biological samples, even to Brazilians working abroad, has convened a National Council of Genetic Resources charged with finding a way to resume controlled exchanges.

The parties to the treaty, the Convention on Biological Diversity, met last month in The Hague and adopted voluntary guidelines aimed at distinguishing between "bio-prospecting" and basic science. But the parties, numbering 183, have yet to negotiate the details, and even after they are complete, signers are free to maintain existing rules.

The United States was involved in the talks, and the Clinton administration signed the treaty. But the Senate, lobbied by agriculture and drug companies, has never approved it. The Bush administration is reviewing whether to pursue ratification.

Scientists and some officials from restrictive countries agree that the solution is a regulatory system that is more streamlined for scientists who cede any right to profit from their findings. But creating such a system may be nearly impossible, because many universities, botanical gardens and other research institutions, besides conducting basic studies, also seek to exploit discoveries and, sometimes, have partnerships with drug companies.

In many countries, the fight against what is called biopiracy has proved politically popular, linking the interests of conservative nationalists, indigenous tribes and antiglobalization groups. In the hinterlands, the police and, sometimes, rural villagers have detained or chased out scientists.
Over the decades, there have been just enough examples of furtive expropriation of natural resources to fuel such fears, scientists say. Those include Brazil's loss of its rubber monopoly to Britain in the 19th century -- rubber trees thrived in British-controlled Malaysia -- to recent efforts by some companies to commercialize substances from tropical plants and animals without seeking permission or paying royalties.

Some countries are so eager to thwart biological thievery that they are going beyond the vague terms in the treaty.

At a meeting in February in Cancun, Mexico, representatives of Brazil, China, India, Mexico and nine other countries -- together controlling perhaps 70 percent of the world's biological diversity -- formed the Group of Allied Mega-Biodiverse Nations. The coalition would, among other activities, certify "the legal possession of biological material" and negotiate terms to transfer it.

Existing and proposed restrictions in countries with biological resources are all aimed at controlling research by drug and biotechnology companies. But evidence has grown that they are harming the most basic field work, even observational studies of wildlife in which nothing is taken away. The restrictions not only affect northern scientists' probing southern forests, but also local scientists.

Dr. Ricardo Callejas, a professor at the University of Antioquia in Medellin, Colombia, specializes in the 2,000 species in the black pepper family. Dr. Callejas said fears of biological theft seemed particularly intense in South America, adding that it was "much, much easier to get permits for collecting in the Philippines and Vietnam" than in Colombia.

His discipline is taxonomy, basic analysis of the subtle differences among species and a field with little commercial appeal. Even so, Dr. Callejas said, he and his graduate students had been accused of biopiracy and booted from one village while on a collecting trip. He added that he longed to collect in a dizzyingly rich area in western Colombia, the Choco forests, but that the treaty had made the effort impossible.

"If you request a permit," Dr. Callejas said, "you have to provide coordinates for all sites to be visited and have to have the approval from all the communities that live in those areas. Otherwise, go back to your home and watch Discovery Channel the new exciting program on dinosaurs from Argentina. I am still waiting after 14 months for a permit for collecting in Choco."

Delays, fees and research restrictions in countries like Brazil and provinces like Sarawak, the Malaysian part of Borneo, have caused many scientists simply to abandon the critical, difficult work of charting the still largely unexplored maze of species.

In some cases, scientists have been detained and their collections destroyed. In the Brazilian Amazon in 1998, an American geographer studying the forest for hints of ancient cultivation methods was placed under house arrest by the federal police in Santarem, and his boat, equipment and samples were seized.

The scientist, Joseph M. McCann, who now teaches at the New School for Social Research in Manhattan, had all the appropriate permits and visas. He said that he eventually got back his gear and the title to his old riverboat, but that most of the collection of pressed plants rotted because the police had stored it outside. The plants had been destined for a Brazilian herbarium, not a pharmaceutical laboratory, he said.
Graduate students and postdoctoral researchers have been affected most of all, from both developing countries and from the North.

At the New York Botanical Garden in the Bronx, Andre M. Amorim, a visiting botany professor from the State University of Santa Cruz in Bahia, Brazil, has had trouble completing his doctoral research because of the ban on shipping even the tiniest leaf fragment.

His work focuses on Brazilian lianas and related vines and shrubs, and it requires advanced molecular and genetic analysis using equipment in New York.

"This is a real problem when Brazilian researchers are working in other countries," Mr. Amorim said.

In some places, restrictions have forced biologists to pack up and leave or to avoid the least-studied regions like the Amazon, where the classification of species lags, and focus on more accessible places like Hawaii or Puerto Rico.

In Sarawak, Dr. Navjot S. Sodhi of the National University of Singapore abandoned a project to survey the bird species in several national parks after tighter research restrictions took effect in 1998.

"Sarawak is the best place on earth to work, because there's so much rain forest left and the people are so nice," Dr. Sodhi said. "They provided free workers to help us, and we trained them in return and hired local guides. We were only collecting blood samples from birds to look for parasites and also collecting bird feces to study their diets."

But word spread that a potential AIDS drug had been discovered in the region. New rules greatly complicated his program, he said. "Now, to collect bird feces we had to get an export permit."

Officials began harassing his students.

"I couldn't take the nonsense any more, and we pulled out," Dr. Sodhi said. "I was willing to sign anything saying that we were not doing any bioprospecting."

But there was nothing to sign.

Officials at some companies that are sifting ecosystems for potential profits say it is appropriate that scientists from universities and other academic institutions play by the same tight rules.

"Academics have been kind of naive to the question of ownership of genetic material," said Eric J. Mathur, senior director for molecular diversity at Diversa, a company in San Diego that works around the world to find enzymes and other substances that could make valuable drugs or other products. "They think that under the guise of academia they can do whatever they want. But if their work results in any kind of invention -- and most come serendipitously -- you can be sure their institution will want to own it and make money from it."

Mr. Mathur said that the last year or so had finally seen the biodiversity convention "start to come of age."
In a growing number of countries, he said, the general precepts of the convention have translated into workable contracts that, for the first time, clarify who owns what and how any benefits will be shared.

But many scientists and some officials say there is clearly the need for a system with two tracks, to separate and simplify work that clearly has no commercial application.

The impetus for the treaty, scientists note ruefully, arose largely from biologists, who in the late 1980's powerfully promoted the notion that rain forests could turn out to be medicine chests for the world. But the promise has rarely turned into profits, with just a handful of drugs and products reaching markets.

"It's never really panned out and was totally oversold," said Dr. George Amato, director of the conservation genetics program at the Bronx Zoo.

Dr. Amato's program has frequently been stymied in helping foreign researchers identify animal species and strains through using genetic analysis, because no material can be sent abroad. In one such effort, aimed at identifying a strain of yellow-headed Amazon parrots, the DNA ended up being tracked down in a stuffed museum specimen.

The worst side effect of the biology restrictions, many experts say, is that young researchers are being driven away from important ecosystems and fields of study.

In 1999, Christiane Ehringhaus, a German botanist pursuing a doctorate at Yale, was teaching Brazilian students and studying plants in the state of Acre in the Brazilian Amazon when newspapers implied that she was collecting seeds and insights from indigenous people in pursuit of potential drugs.

Although she is still in Acre, Ms. Ehringhaus said the resulting difficulties had prompted her to abandon botany altogether and shift to social and economic studies.

"First," she said, "they drove me completely away from medicinal plants and now from plants, period."

Prof. John H. Barton of the Stanford Law School, an expert on the biodiversity treaty, said the biggest weakness in the pact was its focus on biology as property. "It is much more about sharing the profits from genetic resources than it is about conserving biodiversity, about science," Professor Barton said.

Around the world, that focus has translated into warped expectations and suspicions, Dr. Callejas said in Colombia.

"I have trouble convincing my closest friends that what I do is because of passion, curiosity, a desire to know more about a group of organisms," he said.

Everyone around him, he added, is convinced, with all the talk of property rights and miracle drugs, that it is about money.

"The convention," Dr. Callejas said, has produced a "distorted view of what science is and who scientists are. And so now, we are the problem, not the solution."
Article 15 of the Convention on Biological Diversity: Access to Genetic Resources

1. Recognizing the sovereign rights of States over their natural resources, the authority to determine access to genetic resources rests with the national governments and is subject to national legislation.
2. Each Contracting Party shall endeavour to create conditions to facilitate access to genetic resources for environmentally sound uses by other Contracting Parties and not to impose restrictions that run counter to the objectives of this Convention.
3. For the purpose of this Convention, the genetic resources being provided by a Contracting Party, as referred to in this Article and Articles 16 and 19, are only those that are provided by Contracting Parties that are countries of origin of such resources or by the Parties that have acquired the genetic resources in accordance with this Convention.
4. Access, where granted, shall be on mutually agreed terms and subject to the provisions of this Article.
5. Access to genetic resources shall be subject to prior informed consent of the Contracting Party providing such resources, unless otherwise determined by that Party.
6. Each Contracting Party shall endeavour to develop and carry out scientific research based on genetic resources provided by other Contracting Parties with the full participation of, and where possible in, such Contracting Parties.
7. Each Contracting Party shall take legislative, administrative or policy measures, as appropriate, and in accordance with Articles 16 and 19 and, where necessary, through the financial mechanism established by Articles 20 and 21 with the aim of sharing in a fair and equitable way the results of research and development and the benefits arising from the commercial and other utilization of genetic resources with the Contracting Party providing such resources. Such sharing shall be upon mutually agreed terms.

C. 下列是美國聯邦最高法院的 Justice Ginsburg 在 Eldred v. Ashcroft 案的判決摘要。請閱讀之後，簡要地說明 Justice Ginsburg 作成此判決之理由。(以中文作答)。(30 points)

**Supreme Court decision**

WASHINGTON, Jan. 15 Following are excerpts from the Supreme Court decision today upholding the Copyright Term Extension Act of 1998, which added 20 years to all existing copyrights. The vote in the case, Eldred v. Ashcroft, was 7 to 2. Justice Ruth Bader Ginsburg wrote the majority opinion. Justices Stephen G. Breyer and John Paul Stevens dissented.
FROM THE DECISION
By Justice Ginsburg

Congress's consistent historical practice of applying newly enacted copyright terms to future and existing copyrights reflects a judgment stated concisely by Representative Huntington at the time of the 1831 act: "Justice, policy and equity alike forbid" that an "author who had sold his work a week ago, be placed in a worse situation than the author who should sell his work the day after the passing of the act."

"Since 1790, it has indeed been Congress's policy that the author of yesterday's work should not get a lesser reward than the author of tomorrow's work just because Congress passed a statute lengthening the term today." The C.T.E.A. follows this historical practice by keeping the duration provisions of the 1976 act largely in place and simply adding 20 years to each of them. Guided by text history and precedent, we cannot agree with petitioners' submission that extending the duration of existing copyrights is categorically beyond Congress's authority under the copyright clause.

Satisfied that the C.T.E.A. complies with the "limited times" prescription, we turn now to whether it is a rational exercise of the legislative authority conferred by the copyright clause. On that point, we defer substantially to Congress. "It is Congress that has been assigned the task of defining the scope of the limited monopoly that should be granted to authors . . . in order to give the public appropriate access to their work product."

The C.T.E.A. reflects judgments of a kind Congress typically makes, judgments we cannot dismiss as outside the legislature's domain . . .

In sum, we find that the C.T.E.A. is a rational enactment; we are not at liberty to second-guess Congressional determinations and policy judgments of this order, however debatable or arguably unwise they may be. Accordingly, we cannot conclude that the C.T.E.A., which continues the unbroken Congressional practice of treating future and existing copyrights in parity for term extension purposes, is an impermissible exercise of Congress's power under the copyright clause . . .

More forcibly, petitioners contend that the C.T.E.A.'s extension of existing copyrights does not "promote the progress of science" as contemplated by the preambular language of the copyright clause.

To sustain this objection, petitioners do not argue that the clause's preamble is an independently enforceable limit on Congress's power. Petitioners acknowledge that "the preamble of the copyright clause is not a substantive limit on Congress's legislative power."
Rather, they maintain that the preambular language identifies the sole end to which Congress may legislate; accordingly, they conclude, the meaning of "limited times" must be "determined in light of that specified end." The C.T.E.A.'s extension of existing copyrights categorically fails to "promote the progress of science," petitioners argue, because it does not stimulate the creation of new works but merely adds value to works already created.

As petitioners point out, we have described the copyright clause as "both a grant of power and a limitation," and have said that "the primary objective of copyright" is "to promote the progress of science." The "constitutional command," we have recognized, is that Congress, to the extent it enacts copyright laws at all, create a "system" that promotes the progress of science.

We have also stressed, however, that it is generally for Congress, not the courts, to decide how best to pursue the copyright clause's objectives....

On the issue of copyright duration, Congress, from the start, has routinely applied new definitions or adjustments of the copyright term to both future works and existing works not yet in the public domain. Such consistent Congressional practice is entitled to "very great weight, and when it is remembered that the rights thus established have not been disputed during a period of over two centuries, it is almost conclusive." Indeed, "this court has repeatedly laid down the principle that a contemporaneous legislative exposition of the Constitution when the founders of our government and framers of our Constitution were actively participating in public affairs, acquiesced in for a long term of years, fixes the construction to be given the Constitution's provisions."

Congress's unbroken practice since the founding generation thus overwhelms petitioners' argument that the C.T.E.A.'s extension of existing copyrights fails per se to "promote the progress of science."....

The C.T.E.A., in contrast, does not oblige anyone to reproduce another's speech against the carrier's will. Instead, it protects authors' original expression from unrestricted exploitation. Protection of that order does not raise the free speech concerns present when the government compels or burdens the communication of particular facts or ideas....

The First Amendment securely protects the freedom to make or decline to make one's own speech; it bears less heavily when speakers assert the right to make other people's speeches. To the extent such assertions raise First Amendment concerns, copyright's built-in free speech safeguards are generally adequate to address them. We recognize that the D.C. circuit spoke too broadly when it declared copyrights "categorically immune from challenges under the First Amendment." But when, as in this case,
Congress has not altered the traditional contours of copyright protection, further First Amendment scrutiny is unnecessary.

As we read the framers' instruction, the copyright clause empowers Congress to determine the intellectual property regimes that, overall, in that body's judgment, will serve the ends of the clause. Congress may "implement the stated purpose of the framers by selecting the policy which in its judgment best effectuates the constitutional aim." Beneath the facade of their inventive constitutional interpretation, petitioners forcefully urge that Congress pursued very bad policy in prescribing the C.T.E.A.'s long terms. The wisdom of Congress's action, however, is not within our province to second guess. Satisfied that the legislation before us remains inside the domain the Constitution assigns to the first branch, we affirm the judgment of the court of appeals.