

BAHASA INGGRIS

_____. Scientists are now able to create new forms of life in the laboratory because of the development of gene splicing - the joining of genes. On the one hand, the ability to create life in the laboratory could greatly benefit humankind. One beneficial application of gene splicing is in agriculture. For example, researchers have engineered a more nutritious type of rice that could help alleviate the serious problem of vitamin A deficiency. It is estimated that 124 million children worldwide lack vitamin A, putting them at risk of permanent blindness and other health issues. However, not everyone is positive about gene-splicing technology. Some people feel that it could have terrible consequences. In fact a type of corn engineered to kill a certain insect pest also threatened to wipe out desirable monarch butterflies. In another accident, a genetically engineered type of corn that was approved only for animal consumption because it was toxic to humans accidentally cross-pollinated with corn grown for humans. As a result many countries banned imports of genetically modified corn for several years.

Gunakan **Petunjuk A** dalam menjawab soal nomor 41 sampai nomor 42.

41. Which of the following sentences should begin the paragraph?
- (A) There has been some new promising development in genetic engineering.
 - (B) Genetic research has produced both exciting and frightening possibilities.
 - (C) The benefits of genetic engineering have been proven recently by scientists.
 - (D) Genetic engineering should not be developed as it disturbs natural ecology.
 - (E) The limit of genetic engineering is the human mind itself.
42. This paragraph may be followed by a paragraph that discusses ____.
- (A) ways to prevent the undesirable effects of genetic splicing
 - (B) views about genetic engineering based on religious ground
 - (C) the reasons for avoiding genetic engineering
 - (D) reasons why people must support genetic engineering
 - (E) the process of the development of genetic engineering

The unmistakable buzz of a bumblebee is one of the quintessential sounds of British summertime. However, this slender sound and faint utterance is under threat because bumblebees are in crisis. Of the 25 species native to Britain, three have already been declared extinct, five are designated UK Biodiversity Action Plan priority species, and many more have undergone major range contractions. The great yellow bumblebee, *Bombus distinguendus*, for example, is now restricted to northern Scotland, Orkney and the Hebrides, and the shrill carder bee, *Bombus sylvarum*, which was once common throughout southern Britain, now exists only in seven small groups. In addition, as these populations become more isolated they can become inbred, which increases the risk of further extinctions.

At the end of summer all the bumblebees in a colony die, apart from the virgin queens who mate and then leave the nest to hibernate over winter. In the spring a queen will make a new nest, lay eggs and then raise the first batch of workers. This annual cycle depends on there being enough pollen and nectar to sustain the queen as she establishes her nest and team of workers as the colony grows. Pollen is a protein-rich fuel that is key to helping over-wintered queens to kickstart their reproductive systems ready and for the development of larvae. Nectar, on the other hand, is a sugar-rich fuel which is converted to honey to feed adult bees. The bees make honey by adding to the nectar in their honey sacs an enzyme called invertase, which converts sucrose sugars to a mixture of glucose and fructose. Once the workers are developed, they take over the foraging and the queen concentrates on laying eggs. Later in the year, if the colony has been successful and reaches a large enough size, the queen will produce male eggs and some female eggs are raised as new queens.

A lack of resources is thought to be the critical factor that is affecting bumblebee populations, and it is related to the loss of wild flowers, both in the countryside and in vast areas of suburban gardens. The biggest impact has been the availability of food and drink, in particular the continuity of supplies throughout the colony cycle. Although nectar is available from a wide range of plants, the bees can be much more choosy about where they collect pollen from, sometimes restricting this to very few flowering plants. In Scotland, overwintered queens of the declining and beautiful bilberry bumblebee focus on bilberry in spring. Other species may focus on legumes such as red clover and bird's-foot trefoil. Sadly, because the UK has lost 98% of its flower-rich grasslands, this has been devastating for some bumblebee species.

Gunakan **Petunjuk A** dalam menjawab soal nomor 43 sampai nomor 47.

43. What is the best title of the passage?
- (A) Various Kinds of Bumblebees
 (B) The Impacts of the Loss of Wild Flowers
 (C) The Falling-Off Population of Bumblebees
 (D) The Development of Bumblebees Population
 (E) The Availability of Bumblebee Species in the UK
44. What can be inferred from the passage about the lifecycle of bumblebees?
- (A) The new workers are brought up by the male bees.
 (B) Bumblebees hibernate throughout winter to survive.
 (C) The virgin queens survive the summer and then continue the reproduction.
 (D) All the bumblebees in a colony die when summer ends.
 (E) The continuation of the lifecycle depends on the skill of the queens in collecting food.
45. Which of the following statements about the passage is FALSE?
- (A) When the colony has been thriving and reached a sufficient size, the queen will lay male eggs.
 (B) Some female eggs are laid to produce new queen bees.
 (C) The declining population of bumblebees has been attributed to the inadequate food resource.
 (D) Nectar and pollen are still widely available even for the choosy species of bumblebees.
 (E) A large percentage of the UK area has lost its ability to supply food for bumblebees.
46. The word 'designated' in line 3 can best be replaced by ____.
- (A) voted (D) chosen
 (B) preferred (E) clasified
 (C) restricted

47. Why did the writer mention the queens of bilberry bumblebee?
- (A) To describe how a bumblebee may look like
 - (B) To give example of bees which can survive the winter
 - (C) To show one species of bees whose food resource is declining
 - (D) To give an example of a species of bumblebees which is declining
 - (E) To give an example of bees which are very selective about source of pollen

Sequoyah was a young Cherokee Indian, son of a white trader and an Indian squaw. At an early age, he became __ (48) __ by "the talking leaf", an expression that he used to describe the white man's written records. __ (49) __ many believed this "talking leaf" to be a gift from the Giant Spirit, Sequoyah refused to accept that theory. Like other Indians of the period, he was __ (50) __, but his determination to remedy the situation led to the invention of a unique 86-character alphabet based on the sound patterns that he heard. His family and friends thought him mad, but while recuperating from a hunting accident, he diligently and independently set out to create a form of communication for own people __ (51) __ for other Indians. In 1821, after twelve years of work, he had __ (52) __ developed a written language that would enable thousands of Indians to read and write.

Gunakan **Petunjuk A** dalam menjawab soal nomor 48 sampai nomor 52.

48. ...

- | | |
|----------------|----------------|
| (A) amused | (D) fascinated |
| (B) surprised | (E) motivated |
| (C) interested | |

49. ...

- | | |
|-------------|--------------|
| (A) Since | (D) However |
| (B) Because | (E) Although |
| (C) Before | |

50. ...

- | | |
|----------------|------------------|
| (A) illiterate | (D) imaginative |
| (B) innate | (E) illegitimate |
| (C) immature | |

51. ...

- | | |
|----------------|-----------------|
| (A) as much as | (D) as a result |
| (B) as soon as | (E) as long as |
| (C) as well as | |

52. ...

- | | |
|----------------|------------------|
| (A) succeed | (D) successfully |
| (B) success | (E) succeeded |
| (C) successful | |

A very important world problem, if not the most serious of all the great world problems which affect us at the moment, is the increasing number of people who actually inhabit this planet. The limited amount of land and land resources will soon be unable to support the huge population if it continues to grow __ (54) __.

In an early survey conducted in 1888, a billion and a half people inhabited the earth. Now, the population __ (55) __ five billion and is growing fast - by the staggering figure of 90 million in 1988 alone. This means that the world __ (56) __ accommodate a new population roughly equal to that of the United States and Canada every three years. Even though the rate of growth has begun to slow down, most experts believe the population size will still pass eight billion during the next 50 years.

It is really due to the spread of the knowledge and __ (57) __. You have no doubt heard of the term "Birth Control" - "Death Control" is something rather different. It recognizes the work of the doctors and scientists who now keep alive people who, not very long ago, __ (58) __ of a variety of then incurable diseases. Through a wide variety of technological innovations that include farming methods and sanitation, as well as the control of these deadly diseases, we have found ways to reduce the rate __ (59) __ we die - creating a population explosion. We used to think that reaching seventy years old was a remarkable achievement, but now eighty or even ninety is becoming recognized as the normal life-span for humans. In a sense, this represents a tremendous achievement for __ (60) __ species. Biologically this is the very definition of success and we have undoubtedly become the dominant animal on the planet. However, this success is the very cause of the greatest threat to mankind.

Gunakan **Petunjuk A** dalam menjawab soal nomor 53 sampai nomor 60.

53. This sentence "So, why is this huge increase in population taking place?" should be
- (A) the first sentence of paragraph 1
(B) the last sentence of paragraph 1
(C) the first sentence of paragraph 2
(D) the first sentence of paragraph 3
(E) the last sentence of paragraph 3
54.
- (A) at full speed
(B) at its present rate
(C) at its present pace
(D) in six figures
(E) in its present degree
55.
- (A) exceeds (D) is exceeding
(B) exceeded (E) would exceed
(C) exceed
56.
- (A) can (D) had better
(B) may (E) must
(C) will
57.
- (A) practice of what is becoming known as "Death Control"
(B) what is becoming known practice of "Death Control"
(C) what is becoming known as the practice of "Death Control"
(D) practice at what is becoming known as "Death Control"
(E) practice what is becoming known of as "Death Control"
58.
- (A) had died
(B) have died
(C) would have died
(D) will be dying
(E) died
59.
- (A) that (D) when
(B) why (E) at which
(C) how
60.
- (A) your (D) its
(B) their (E) his
(C) our