

The University of the State of New York
REGENTS HIGH SCHOOL EXAMINATION

LIVING ENVIRONMENT

Friday, January 28, 2005 — 9:15 a.m. to 12:15 p.m., only

Student Name _____

School Name _____

Print your name and the name of your school on the lines above. Then turn to the last page of this booklet, which is the answer sheet for Part A and Part B–1. Fold the last page along the perforations and, slowly and carefully, tear off the answer sheet. Then fill in the heading of your answer sheet.

You are to answer all questions in all parts of this examination. Write your answers to the Part A and Part B–1 multiple-choice questions on the separate answer sheet. Write your answers for the questions in Parts B–2, C, and D directly in this examination booklet. All answers should be written in pen, except for graphs and drawings which should be done in pencil. You may use scrap paper to work out the answers to the questions, but be sure to record all your answers on the answer sheet and in this examination booklet.

When you have completed the examination, you must sign the statement printed on your separate answer sheet, indicating that you had no unlawful knowledge of the questions or answers prior to the examination and that you have neither given nor received assistance in answering any of the questions during the examination. Your answer sheet cannot be accepted if you fail to sign this declaration.

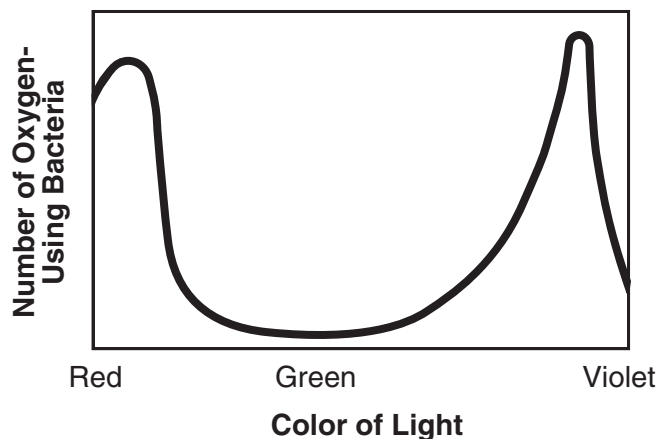
DO NOT OPEN THIS EXAMINATION BOOKLET UNTIL THE SIGNAL IS GIVEN.

Part A

Answer all questions in this part. [30]

Directions (1–30): For each statement or question, write on your separate answer sheet the number of the word or expression that, of those given, best completes the statement or answers the question.

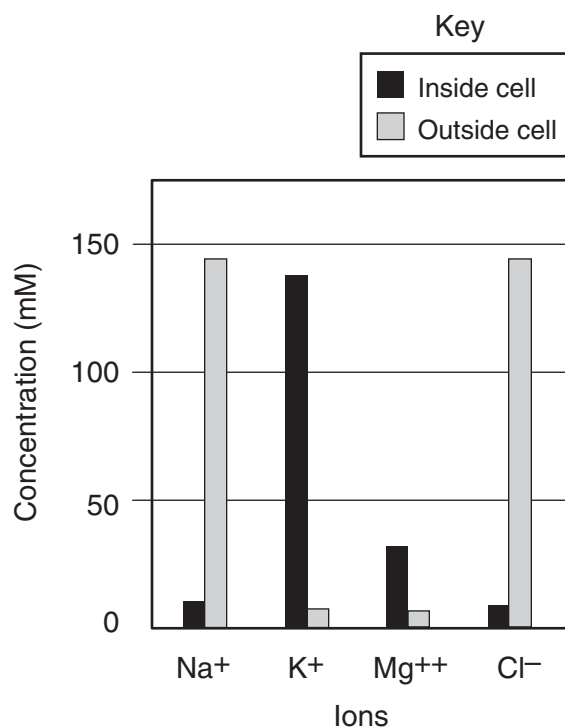
- 1 The graph below shows the results of an experiment in which a container of oxygen-using bacteria and strands of a green alga were exposed to light of different colors.



Which statement best explains the results of this experiment?

- (1) The rate of photosynthesis is affected by variations in the light.
 - (2) In all environments light is a vital resource.
 - (3) The activities of bacteria and algae are not related.
 - (4) Uneven numbers and types of species can upset ecosystem stability.
- 2 Which statement best describes the relationship between cells, DNA, and proteins?
- (1) Cells contain DNA that controls the production of proteins.
 - (2) DNA is composed of proteins that carry coded information for how cells function.
 - (3) Proteins are used to produce cells that link amino acids together into DNA.
 - (4) Cells are linked together by proteins to make different kinds of DNA molecules.

- 3 The graph below shows the relative concentrations of different ions inside and outside of an animal cell.



Which process is directly responsible for the net movement of K⁺ and Mg⁺⁺ into the animal cell?

- (1) electrophoresis
 - (2) diffusion
 - (3) active transport
 - (4) circulation
- 4 Which sequence of terms represents a decrease from the greatest number of structures to the least number of structures present in a cell?
- (1) nucleus → gene → chromosome
 - (2) gene → nucleus → chromosome
 - (3) gene → chromosome → nucleus
 - (4) chromosome → gene → nucleus

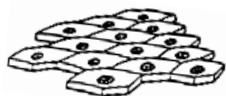
5 An established ecosystem may remain stable over hundreds of years because

- (1) species interdependence is absent
- (2) there is a lack of variety in the species
- (3) no competition exists between the species
- (4) there are natural checks on species

6 Which two organ systems provide materials required for the human body to produce ATP?

- (1) reproductive and excretory
- (2) digestive and respiratory
- (3) respiratory and immune
- (4) digestive and reproductive

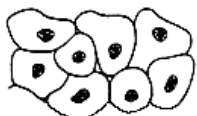
7 Some human body cells are shown in the diagrams below.



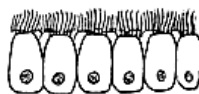
Cells from skin



Blood cells



Cells from lining of bladder



Cells from lining of trachea

These groups of cells represent different

- (1) tissues in which similar cells function together
- (2) organs that help to carry out a specific life activity
- (3) systems that are responsible for a specific life activity
- (4) organelles that carry out different functions

8 Which process is *least* likely to add to the variety of traits in a population?

- (1) deletion of bases from DNA
- (2) genetic engineering
- (3) accurate replication of DNA
- (4) exchange of segments between chromosomes

9 Strawberries can reproduce by means of runners, which are stems that grow horizontally along the ground. At the region of the runner that touches the ground, a new plant develops. The new plant is genetically identical to the parent because

- (1) it was produced sexually
- (2) nuclei traveled to the new plant through the runner to fertilize it
- (3) it was produced asexually
- (4) there were no other strawberry plants in the area to provide fertilization

10 Genes involved in the production of abnormal red blood cells have an abnormal sequence of

- (1) ATP molecules
- (2) amino acids
- (3) sugars
- (4) bases

11 Research has shown that certain body cells, known as stem cells, can develop into a variety of specialized cells. Various factors can cause stem cells to develop into different types of mature cells. These different types of mature cells result from

- (1) different antibodies and mitotic cell division
- (2) identical genetic codes and meiotic cell division
- (3) different environments of the cells and the functioning of different parts of the genetic code
- (4) similar steps in the development of the cells and a reduction in the number of chromosomes in each cell

12 Which statement describing a cause of extinction includes the other three?

- (1) Members of the extinct species were unable to compete for food.
- (2) Members of the extinct species were unable to conceal their presence by camouflage.
- (3) Members of the extinct species lacked adaptations essential for survival.
- (4) Members of the extinct species were too slow to escape from predators.

13 Scientists compared fossil remains of a species that lived 5,000 years ago with members of the same species living today. Scientists concluded that this species had changed very little over the entire time period. Which statement best accounts for this lack of change?

- (1) The environment changed significantly and those offspring without favorable characteristics died.
- (2) The environment changed significantly, but the species had no natural enemies for a long period of time.
- (3) The environment did not change significantly and those offspring expressing new characteristics survived their natural enemies.
- (4) The environment did not change significantly and those offspring expressing new characteristics did not survive.

14 Which statement is true of both mitosis and meiosis?

- (1) Both are involved in asexual reproduction.
- (2) Both occur only in reproductive cells.
- (3) The number of chromosomes is reduced by half.
- (4) DNA replication occurs before the division of the nucleus.

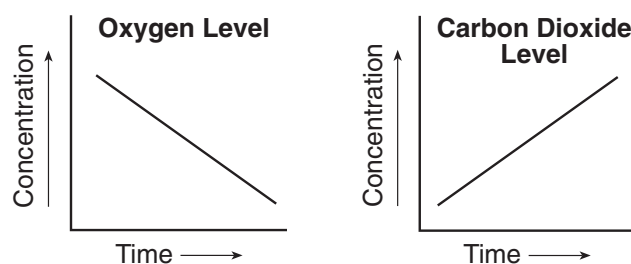
15 A cell resulting from the fertilization of an egg begins to divide. Two cells are formed that normally remain attached and could develop into a new individual. If the two cells become separated, which statement describes what would most likely occur?

- (1) The cells would each have all of the needed genetic information, and both could survive.
- (2) The cells would each have only one-half of the needed genetic information, so both would die.
- (3) One cell would have all of the needed genetic information and would survive, but the other would have none of the needed genetic information and would die.
- (4) Each cell would have some of the needed genetic information, but would be unable to share it, so both would die.

16 Down syndrome is a genetic disorder caused by the presence of an extra chromosome in the body cells of humans. This extra chromosome occurs in a gamete as a result of

- (1) an error in the process of cloning
- (2) an error in meiotic cell division
- (3) a gene mutation
- (4) replication of a single chromosome during mitosis

17 The graphs below show the changes in the relative concentrations of two gases in the air surrounding a group of mice.



Which process in the mice most likely accounts for the changes shown?

- (1) active transport
- (2) evaporation
- (3) respiration
- (4) photosynthesis

18 Plants in areas with short growing seasons often have more chloroplasts in their cells than plants in areas with longer growing seasons. Compared to plants in areas with longer growing seasons, plants in areas with shorter growing seasons most likely

- (1) make and store food more quickly
- (2) have a higher rate of protein metabolism
- (3) grow taller
- (4) have a different method of respiration

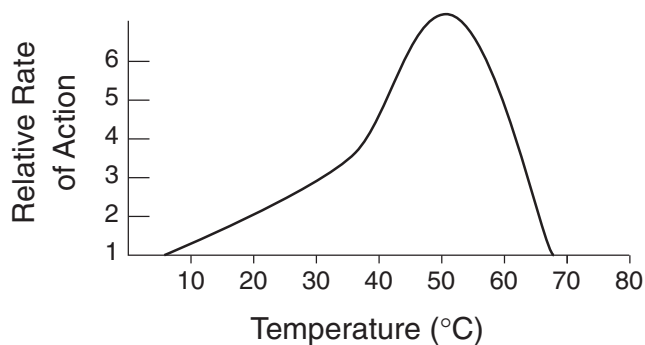
19 The reason that organisms can *not* produce populations of unlimited size is that

- (1) the resources of Earth are finite
- (2) there is no carrying capacity on Earth
- (3) species rarely compete with one another
- (4) interactions between organisms are unchanging

20 Which activity is *not* a function of white blood cells in response to an invasion of the body by bacteria?

- (1) engulfing these bacteria
- (2) producing antibodies to act against this type of bacteria
- (3) preparing for future invasions of this type of bacteria
- (4) speeding transmissions of nerve impulses to detect these bacteria

21 The graph below shows the effect of temperature on the relative rate of action of enzyme X on a protein.



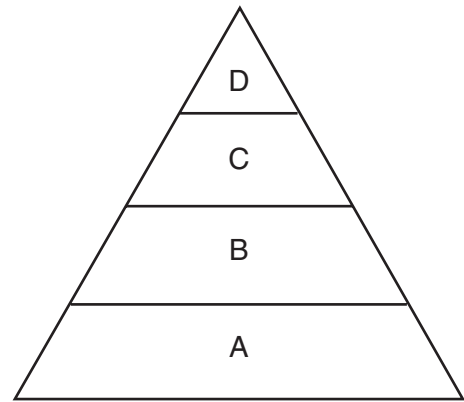
Which change would *not* affect the relative rate of action of enzyme X?

- (1) the addition of cold water when the reaction is at 50°C
- (2) an increase in temperature from 70°C to 80°C
- (3) the removal of the protein when the reaction is at 30°C
- (4) a decrease in temperature from 40°C to 10°C

22 When organisms break the bonds of organic compounds, the organisms can

- (1) use the smaller molecules to plug the gaps in the cell membrane to slow diffusion
- (2) use the energy obtained to digest molecules produced by respiration that uses oxygen
- (3) obtain energy or reassemble the resulting materials to form different compounds
- (4) excrete smaller amounts of solid waste materials during vigorous exercise

23 Which statement about the pyramid of energy shown below is correct?



- (1) The amount of energy needed to sustain the pyramid enters at level D.
- (2) The total amount of energy decreases with each successive feeding level from D to A.
- (3) The amount of energy is identical in each level of the pyramid.
- (4) The total amount of energy at level D is less than the total amount of energy at level B.

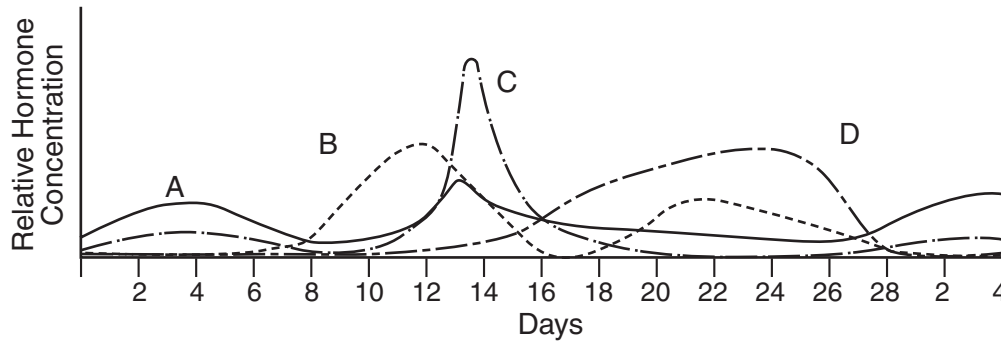
24 Some organizations are buying up sections of forest land. Once purchased, these sections of forest will never be cut down. The main reason for protecting these sections of forest is to

- (1) cause the extinction of undesirable animal species
- (2) prevent these trees from reproducing too fast
- (3) maintain the diversity of the living environment
- (4) provide more land for agricultural purposes

25 The rapid destruction of tropical rain forests may be harmful because

- (1) removing trees will prevent scientists from studying ecological succession
- (2) genetic material that may be useful for future medical discoveries will be lost
- (3) energy cycling in the environment will stop
- (4) the removal of trees will limit the construction of factories that will pollute the environment

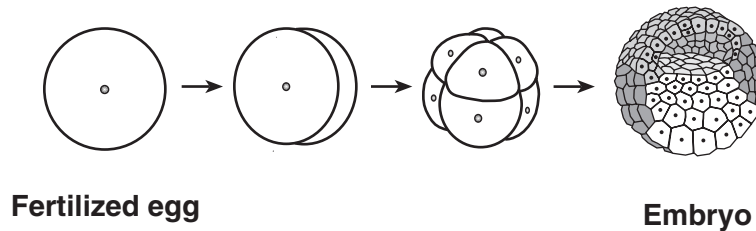
26 The graph below shows the different concentrations of female reproductive hormones A, B, C, and D over a 28-day cycle.



Although the data used to make this graph was originally entered in a data table, most scientists prefer to see the information in the form of a graph because

- (1) the information in a graph is more accurate than the information in a data table
- (2) it is easier to see relationships between variables in a graph than in a data table
- (3) it is possible to put more information in a graph than in a data table
- (4) only graphs can be used to predict future trends

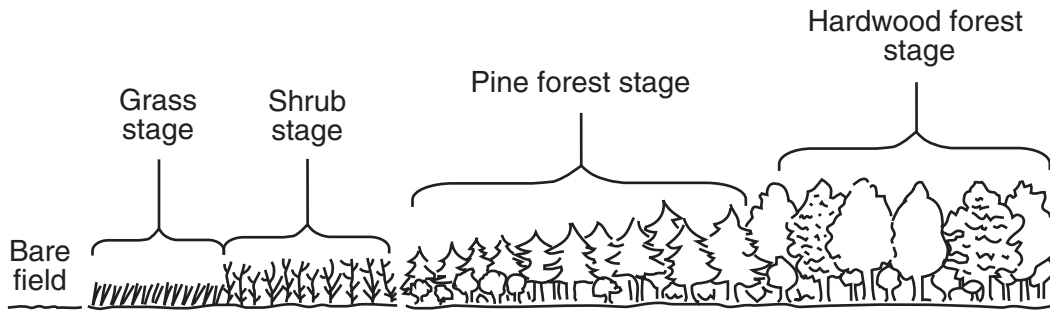
27 Part of embryonic development in a species is illustrated in the diagram below.



Which set of factors plays the most direct role in controlling the events shown in the diagram?

- (1) genes, hormones, and cell location
- (2) antibodies, insulin, and starch
- (3) ATP, amino acids, and inorganic compounds
- (4) abiotic resources, homeostasis, and selective breeding

28 Which of the stages in the diagram below consists of plant species that modify the environment, eventually making it more suitable for another community?



- (1) grass stage, only
 - (2) grass, shrub, and pine forest stages
 - (3) shrub, pine forest, and hardwood forest stages
 - (4) hardwood forest stage, only
-

29 Increased production of goods makes our lives more comfortable, but causes an increase in the demand for energy and other resources. One *negative* impact of this situation on ecosystems is an increase in

- (1) living space for wildlife
- (2) renewable resources
- (3) the diversity of plant species
- (4) pollution levels in the atmosphere

30 Humans are responsible for some of the *negative* changes that occur in nature because they

- (1) have encouraged the development of wildlife refuges and parks
 - (2) have passed laws to preserve the environment
 - (3) are able to preserve scarce resources
 - (4) are able to modify habitats more than any other species
-

Part B–1

Answer all questions in this part. [5]

Directions (31–35): For each statement or question, write on the separate answer sheet the *number* of the word or expression that, of those given, best completes the statement or answers the question.

Base your answers to questions 31 and 32 on the information below and on your knowledge of biology.

In a class, each student made three models of the small intestine using three artificial membrane tubes. They filled each of the three tubes with equal amounts of water, starch, protein, and vitamin C. They added starch-digesting enzyme to tube 1. They added protein-digesting enzyme to tube 2. No enzyme was added to tube 3. The ends of the membrane tubes were sealed and the tubes were soaked for 24 hours in beakers of pure water. The beakers were numbered 1, 2, and 3, corresponding to the number of the tube they contained. At the end of the experiment, the students removed the tubes and tested the water in the beakers for the presence of nutrients.

31 Sugar would most likely be present in the water in

- (1) beaker 1, only
- (2) beaker 2, only
- (3) beakers 1 and 3, only
- (4) beakers 1, 2, and 3

32 Which statement would be a valid inference if vitamin C had been present in the water in each beaker?

- (1) The water synthesized vitamin C.
- (2) Vitamin C is a small molecule.
- (3) The membrane tube produced vitamin C.
- (4) The concentration of vitamin C is higher in the beaker than in the membrane tube.

Base your answer to question 33 on the information below and on your knowledge of biology.

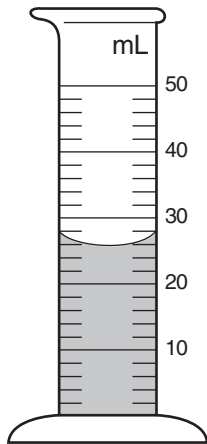
The dodo bird inhabited the island of Mauritius in the Indian Ocean, where it lived undisturbed for years. It lost its ability to fly and it lived and nested on the ground where it ate fruits that had fallen from trees. There were no mammals living on the island.

In 1505, the first humans set foot on Mauritius. The island quickly became a stopover for ships engaged in the spice trade. The dodo was a welcome source of fresh meat for the sailors and large numbers of dodos were killed for food. In time, pigs, monkeys, and rats brought to the island ate the dodo eggs in the ground nests.

33 Which statement describes what most likely happened to the dodo bird within 100 years of the arrival of humans on Mauritius?

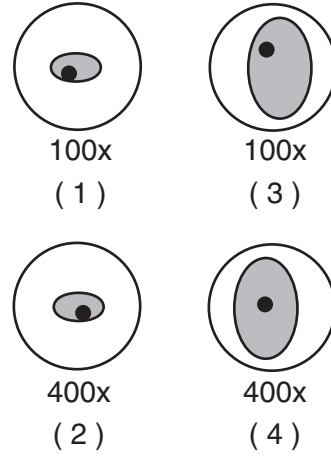
- (1) Dodo birds developed the ability to fly in order to escape predation and their population increased.
- (2) The dodo bird population increased after the birds learned to build their nests in trees.
- (3) Human exploitation and introduced species significantly reduced dodo bird populations.
- (4) The dodo bird population became smaller because they preyed upon the introduced species.

34 What is the volume of the liquid in the graduated cylinder shown below?



- (1) 23 mL
- (2) 26 mL
- (3) 27 mL
- (4) 28 mL

35 The diagrams below show four different one-celled organisms (shaded) in the field of view of the same microscope using different magnifications. Which illustration shows the largest one-celled organism?



Part B-2

**For Teacher
Use Only**

Answer all questions in this part. [20]

Directions (36–54): For those questions that are followed by four choices, circle the number of the choice that best completes the statement or answers the question. For all other questions in this part, follow the directions given in the question.

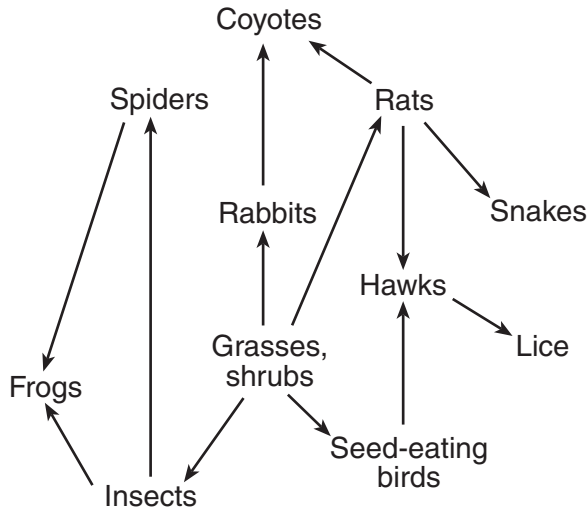
36 A student performed an experiment to determine if treating 500 tomato plants with an auxin (a plant growth hormone) will make them grow faster. The results are shown in the table below.

Days	Average Stem Height (cm)
1	10
5	13
10	19
15	26
20	32
25	40

Explain why the student can *not* draw a valid conclusion from these results. [1]

36

37 The diagram below represents a food web.



The arrows only point away from “Grasses, shrubs” and not toward them. State one biological reason that this is so. [1]

37



38 The chart below contains a number of characteristics for three different organisms. The characteristics can be used in classifying these organisms.

Characteristics	Organism A	Organism B	Organism C
Number of cells	unicellular	multicellular	unicellular
Type of nutrition	autotrophic	autotrophic	heterotrophic
Nuclear membrane	absent	present	absent
DNA	present	present	present

Which *two* organisms would be expected to have the most similar genetic material? Support your answer using information from the chart. [2]

_____ and _____

38



Base your answers to questions 39 through 42 on the information and data table below and on your knowledge of biology.

**For Teacher
Use Only**

A student grew two separate cultures of single-celled organisms. One culture contained *Paramecium caudatum* and the other contained *Paramecium aurelia*. The cultures were grown under the same conditions and the number of paramecia (per drop) in each culture was estimated every 2 days for a period of 16 days. The results are shown in data table 1 below.

Data Table 1: Growth of *Paramecium aurelia* and *Paramecium caudatum* in Individual Cultures

Days	Number of <i>Paramecium caudatum</i> (per drop)	Number of <i>Paramecium aurelia</i> (per drop)
0	4	4
2	10	10
4	30	46
6	48	66
8	58	70
10	62	69
12	60	71
14	61	71
16	60	71

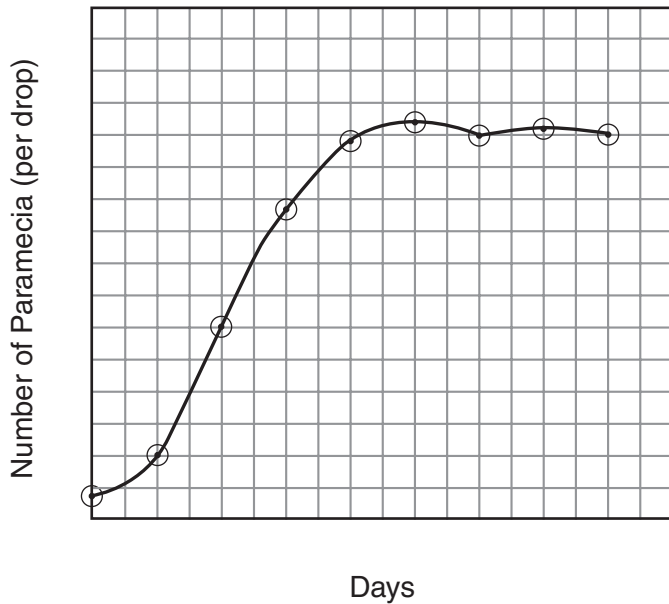
Directions (39–40): Using the information in the data table, construct a line graph on the grid provided on the next page, following the directions below.

39 Mark a scale on each labeled axis appropriate for the data for *Paramecium caudatum* that has already been plotted on the grid. [1]

40 Plot the data for *Paramecium aurelia* on the grid. Surround each point with a small triangle and connect the points. [1]



Growth of *Paramecium aurelia* and *Paramecium caudatum* in Individual Cultures



Key:

⊙ = *Paramecium caudatum*

△ = *Paramecium aurelia*

39

40

41 Describe the change in the two populations between days 0 and 8. [1]

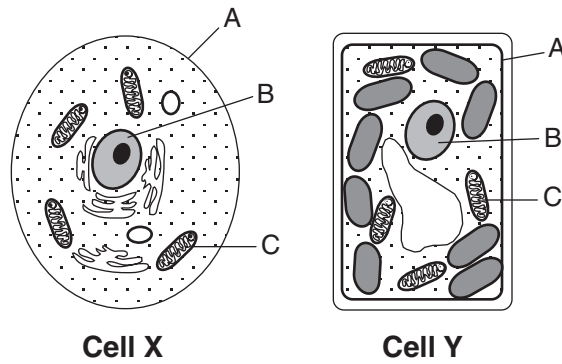
41

42 State one possible reason for the difference in the rates of change in the two populations of paramecia between days 0 and 8. [1]

42

Base your answers to questions 43 through 45 on the diagrams below of two cells, X and Y, and on your knowledge of biology.

**For Teacher
Use Only**



43 Select one lettered organelle and write the letter of that organelle in the space below. Identify the organelle you selected. [1]

43

44 State one function of the organelle that you identified in question 43. [1]

44

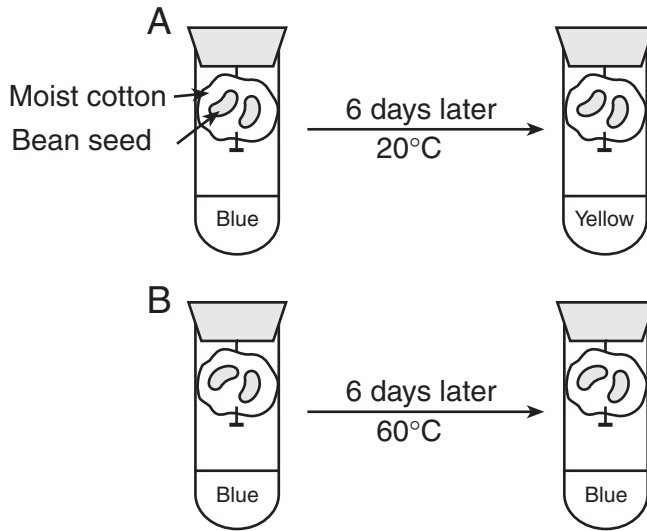
45 Identify one process that is carried out in cell Y that is *not* carried out in cell X. [1]

45

Base your answers to questions 46 and 47 on the information and diagram below and on your knowledge of biology.

**For Teacher
Use Only**

Two test tubes, A and B, were set up as shown in the diagram below. Bromthymol blue, which turns from blue to yellow in the presence of carbon dioxide, was added to the water at the bottom of each tube before the tubes were sealed. The tubes were maintained at the temperatures shown for six days. (Average room temperature is 20°C.)



46 Identify the life process responsible for the change in tube A. [1]

46

47 Explain how the temperature difference could lead to the different results in tubes A and B after six days. [1]

47

Base your answers to questions 48 through 50 on the passage below and on your knowledge of biology.

**For Teacher
Use Only**

Great Effects on the Great Lakes due to Global Warming

Trees such as the jack pine, yellow birch, red pine, and white pine may no longer be able to grow in the Great Lakes region because summers are becoming warmer. However, other trees such as black walnut and black cherry may grow in the area, given enough time. The change in weather would favor these new tree species.

The Great Lakes region is the only place in the world where the endangered Kirtland's Warbler breeds. This bird species nests in young jack pine trees (5 to 23 years old). The vegetation must have specific characteristics or the birds will not nest. A specific area of Michigan is one of the few preferred areas. If the jack pines can no longer grow in this area, the consequences for the Kirtland's Warbler could be devastating.

Recent research findings also suggest that algae production in Lake Ontario and several other Great Lakes will be affected as warmer weather leads to warmer lake water. An increase in water temperature reduces the ability of water to hold dissolved oxygen. These changes have implications for the entire Great Lakes food web. Changes in deep-water oxygen levels and other habitat changes may prevent the more sensitive cold-water fish from occupying their preferred niches in a warmer climate.

All other factors being equal, climatic changes may not have a negative effect on every species in the Great Lakes region. This is because the length of the growing season would be increased. Some temperature-sensitive fish could move to cooler, deeper water when the surface water temperatures become too high. The total impact of global warming is difficult to predict.

48 Explain how the habitat of the Kirtland's Warbler may be changed as a result of global warming. [1]

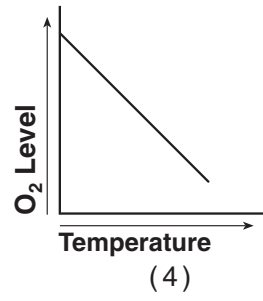
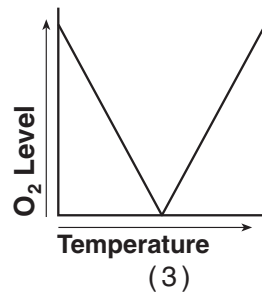
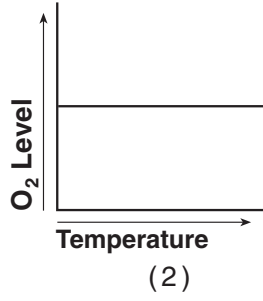
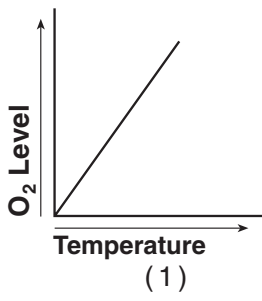
48

49 Identify one producer found in the water of Lake Ontario. [1]

49

50 Which graph best shows the relationship between changes in temperature in the Great Lakes waters and the amount of dissolved oxygen those waters can hold?

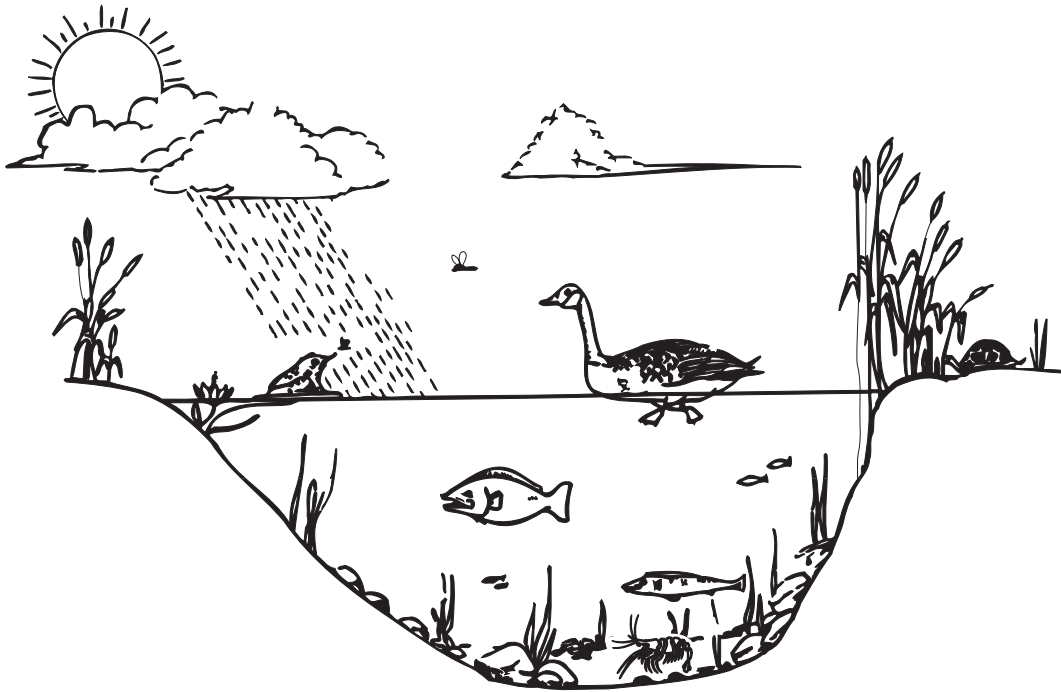
**For Teacher
Use Only**



50

Base your answers to questions 51 through 54 on the lake ecosystem represented below and on your knowledge of biology.

**For Teacher
Use Only**



51 Identify one organism represented in the diagram that provides the vital link for the transfer of energy from the Sun to the other organisms in the ecosystem. [1]

51

52 Identify one predator/prey relationship that may occur in this ecosystem. [1]

Predator: _____ Prey: _____

52

53 State one piece of evidence from the diagram that indicates that light penetrates to the bottom of the lake. [1]

53

54 Identify the type of organism that is *not* visible in the diagram but *must* be present in this ecosystem to recycle the remains of dead organisms. [1]

54

Part C

**For Teacher
Use Only**

Answer all questions in this part. [17]

Directions (55–65): Record your answers in the spaces provided in this examination booklet.

55 Organ systems of the human body interact to maintain a balanced internal environment. As blood flows through certain organs of the body, the composition of the blood changes because of interactions with those organs. State one change in the composition of the blood as it flows through the digestive system. [1]

55

Base your answers to questions 56 through 58 on the information below and on your knowledge of biology.

Mutations are often referred to as the “raw materials” of evolution.

56 State one reason that mutations are often referred to as the “raw materials” of evolution. [1]

56

57 Use appropriate letters to write a 9-base DNA sequence that could represent a portion of a gene. [1]

57

58 Show one example of what could happen to the 9-base DNA sequence you wrote in question 57 if a mutation occurred in that gene. [1]

58

59 Define fertilization and describe the resulting development of a human embryo. In your answer, be sure to include a definition of fertilization and the functions of the ovary, uterus, and placenta. Circle the terms *fertilization*, *ovary*, *uterus*, and *placenta* in your description. [4]

**For Teacher
Use Only**

59

Base your answers to questions 60 and 61 on the information below and on your knowledge of biology.

The reproductive cycle in a human female is not functioning properly. An imbalance of hormones is diagnosed as the cause.

60 Identify one hormone directly involved in the human female reproductive system that could cause this problem. [1]

60

61 Explain why some cells in a female's body respond to reproductive hormones while other cells do not. [1]

61

62 The energy demands of a cell or an organism are met as a result of interactions between several life functions.

- Identify *two* life functions involved in meeting the energy demands of a cell or an organism. [2]

_____ and _____

- Explain how these two life functions interact to make energy available. [2]

**For Teacher
Use Only**

62

Base your answers to questions 63 through 65 on the information below and on your knowledge of biology.

Gaurs, which are large oxlike animals found in South Asia, have been hunted for sport for many generations. Most recently, as human populations have increased, the gaur's habitats of forests, bamboo jungles, and grasslands have dwindled. The gaur is now considered an endangered species.

Scientists have succeeded in preserving endangered species by cloning. Recently, a gaur was cloned and the resulting embryo was placed inside a domestic cow, which then gave birth to a baby gaur.

63 Describe how gaurs produced through normal means are different from gaurs produced by cloning. [1]

63

64 State one biological benefit of preserving endangered species. [1]

64

65 State one way, other than cloning, that gaurs might be saved from extinction. [1]

65

Part D

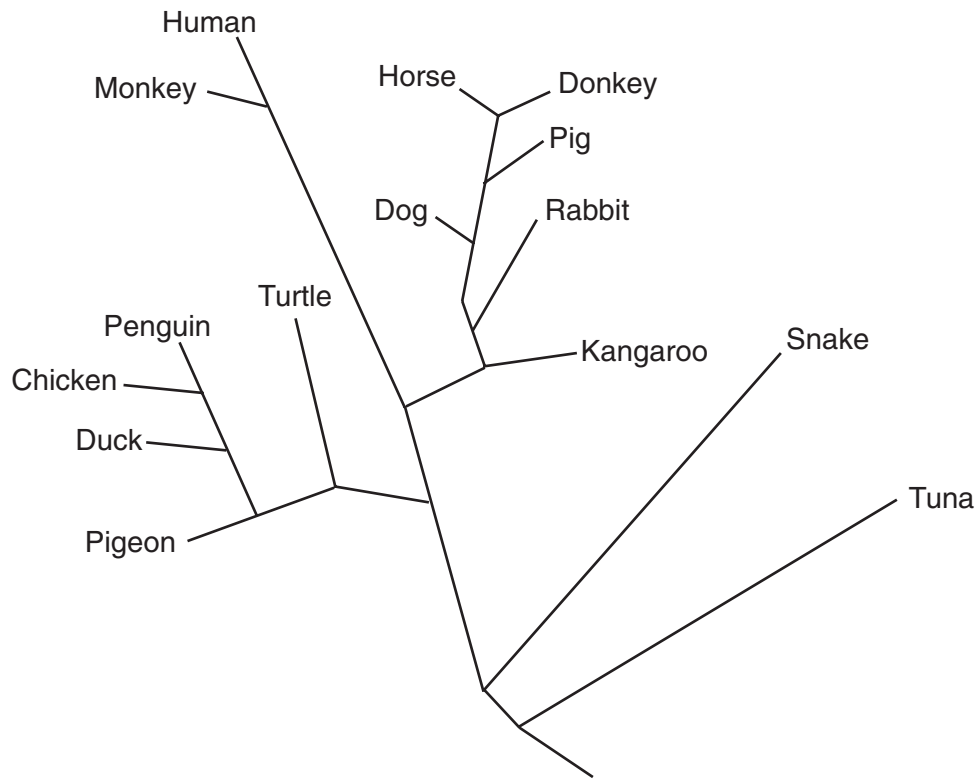
**For Teacher
Use Only**

Answer all questions in this part. [13]

Directions (66–73): For those questions that are followed by four choices, circle the *number* of the choice that best completes the statement or answers the question. For all other questions in this part, follow the directions given in the question.

Base your answers to questions 66 through 68 on the information below and on your knowledge of biology.

Based on their analysis of the differences in amino acid sequences of one kind of protein, scientists prepared the evolutionary tree shown below.



66 According to this diagram, the DNA of which pair of organisms would show the greatest similarity?

- (1) penguin and turtle
- (2) horse and donkey
- (3) snake and tuna
- (4) turtle and rabbit

66

67 Older systems of classification always placed penguins, chickens, ducks, and pigeons in the bird group and turtles and snakes in the reptile group. Does this diagram support the older system of classification? Explain your answer. [1]

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67

68 According to this diagram, is the pig more closely related to the dog or the kangaroo? Justify your answer. [1]

68

69 An increase in heart rate will most likely result in

- (1) a decrease in metabolic rate
- (2) an increase in pulse rate
- (3) an increase in cell division
- (4) a decrease in body temperature

69

70 A student squeezed a clothespin as many times as possible in a 30-second time period. The student repeated this procedure nine more times in quick succession. The data obtained are in the chart below.

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Trial	Number of Squeezes in 30 Seconds
1	32
2	29
3	28
4	27
5	26
6	25
7	23
8	21
9	19
10	17

State one hypothesis that this data would support concerning the relationship between number of trials and number of squeezes in 30 seconds. [1]

70

71 Beak structures differ between individuals of one species of bird. These differences most likely indicate

- (1) the presence of a variety of food sources
- (2) a reduced rate of reproduction
- (3) a large supply of one kind of food
- (4) an abundance of predators

71

72 A hawk has a genetic trait that gives it much better eyesight than other hawks of the same species in the same area. Explain how this could lead to evolutionary change within this species of hawk over a long period of time. In your answer, be sure to include an explanation of:

- competition within the hawk population [1]
- survival of various individuals in the population [1]
- how the frequency of the better-eyesight trait would be expected to change over time within the population [1]
- what would most likely happen to the hawks having the better-eyesight trait if they also had unusually weak wing muscles [1]

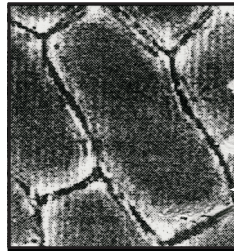
72

73 The photos below show two red onion cells viewed with the high power of a compound light microscope. Describe the steps that could be used to make cell A resemble cell B using a piece of paper towel and an eyedropper or a pipette *without removing the coverslip*. [3]

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Cell A



Cell B

73

Tear Here

The University of the State of New York

REGENTS HIGH SCHOOL EXAMINATION

LIVING ENVIRONMENT

Friday, January 28, 2005 — 9:15 a.m. to 12:15 p.m., only

ANSWER SHEET

Student Sex: Female
 Male

Teacher

School Grade

Part	Maximum Score	Student's Score
A	30	
B-1	5	
B-2	20	
C	17	
D	13	
Total Raw Score (maximum Raw Score: 85)		<input type="text"/>
Final Score (from conversion chart)		<input type="text"/>
Raters' Initials		
Rater 1 Rater 2		

Record your answers to Part A and Part B-1 on this answer sheet.

Part A

- | | | |
|----------|----------|----------|
| 1 | 11 | 21 |
| 2 | 12 | 22 |
| 3 | 13 | 23 |
| 4 | 14 | 24 |
| 5 | 15 | 25 |
| 6 | 16 | 26 |
| 7 | 17 | 27 |
| 8 | 18 | 28 |
| 9 | 19 | 29 |
| 10 | 20 | 30 |

Part A Score

Part B-1

- | | |
|----------|-----------------------|
| 31 | 34 |
| 32 | 35 |
| 33 | Part B-1 Score |

The declaration below must be signed when you have completed the examination.

I do hereby affirm, at the close of this examination, that I had no unlawful knowledge of the questions or answers prior to the examination and that I have neither given nor received assistance in answering any of the questions during the examination.

Signature

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