

FOR TEACHERS ONLY

Bio

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

BIOLOGY

Thursday, August 12, 1999—12:30 to 3:30 p.m., only

SCORING KEY

Part I

Refer to the table on the answer paper for the number of credits to be given on Part I.

Part I (65 credits)

| | | | | | | | | | | | | | | |
|----|---|---|---|---|----|---|---|---|---|----|---|---|---|---|
| 1 | 1 | 2 | 3 | X | 21 | 1 | 2 | X | 4 | 41 | 1 | 2 | X | 4 |
| 2 | X | 2 | 3 | 4 | 22 | 1 | X | 3 | 4 | 42 | 1 | 2 | X | 4 |
| 3 | 1 | 2 | X | 4 | 23 | 1 | 2 | 3 | X | 43 | 1 | X | 3 | 4 |
| 4 | 1 | 2 | 3 | X | 24 | X | 2 | 3 | 4 | 44 | X | 2 | 3 | 4 |
| 5 | 1 | 2 | X | 4 | 25 | 1 | 2 | 3 | X | 45 | X | 2 | 3 | 4 |
| 6 | 1 | 2 | 3 | X | 26 | X | 2 | 3 | 4 | 46 | 1 | 2 | 3 | X |
| 7 | 1 | 2 | X | 4 | 27 | 1 | 2 | X | 4 | 47 | 1 | X | 3 | 4 |
| 8 | X | 2 | 3 | 4 | 28 | 1 | 2 | X | 4 | 48 | X | 2 | 3 | 4 |
| 9 | 1 | X | 3 | 4 | 29 | X | 2 | 3 | 4 | 49 | 1 | 2 | X | 4 |
| 10 | X | 2 | 3 | 4 | 30 | 1 | X | 3 | 4 | 50 | 1 | 2 | 3 | X |
| 11 | X | 2 | 3 | 4 | 31 | 1 | 2 | 3 | X | 51 | 1 | X | 3 | 4 |
| 12 | 1 | X | 3 | 4 | 32 | 1 | 2 | X | 4 | 52 | X | 2 | 3 | 4 |
| 13 | 1 | X | 3 | 4 | 33 | 1 | X | 3 | 4 | 53 | 1 | X | 3 | 4 |
| 14 | 1 | 2 | X | 4 | 34 | X | 2 | 3 | 4 | 54 | 1 | 2 | 3 | X |
| 15 | 1 | 2 | 3 | X | 35 | 1 | 2 | 3 | X | 55 | 1 | 2 | X | 4 |
| 16 | 1 | 2 | 3 | X | 36 | 1 | 2 | 3 | X | 56 | 1 | 2 | 3 | X |
| 17 | 1 | X | 3 | 4 | 37 | 1 | X | 3 | 4 | 57 | 1 | X | 3 | 4 |
| 18 | X | 2 | 3 | 4 | 38 | X | 2 | 3 | 4 | 58 | 1 | 2 | X | 4 |
| 19 | 1 | 2 | X | 4 | 39 | 1 | 2 | 3 | X | 59 | 1 | X | 3 | 4 |
| 20 | 1 | 2 | X | 4 | 40 | 1 | 2 | 3 | X | | | | | |

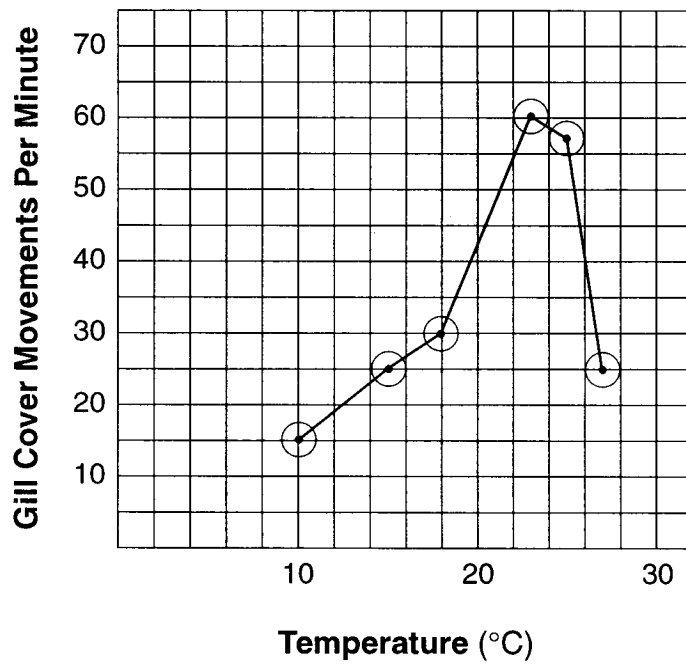
Directions to the Teacher:

Use only *red* ink or *red* pencil in rating Regents examination papers. Do *not* correct the student's work by making insertions or changes of any kind.

Scan each answer paper to make certain that the student has marked only one answer for each question. If a student has marked two or more answers with an X in ink, draw a red line through the row of numbers for that question to indicate that no credit is to be allowed for that question when the answer paper is scored.

To facilitate scoring, the scoring key has been printed in the same format as the answer paper. The scoring key for **Part I and Part II** may be made into a scoring stencil by punching out the correct answers. Be sure that the stencil is aligned with the answer paper so that the holes correspond to the correct answers. To aid in proper alignment, punch out the first and last item numbers in each part and place the stencil on the answer paper so that these item numbers appear through the appropriate holes.

111-112



Part II

Allow a total of 20 credits, one credit for each question, for only two of the five groups in this part. If more than two groups are answered, only the first two should be considered.

**Group 1
Biochemistry**

- 60 1 3 4
 61 1 3 4
 62 1 2 3
 63 1 2 4
 64 1 2
 65 1 3
 66 2 3 4
 67 1 2 3
 68 2 3 4
 69 1 2 4

**Group 3
Reproduction and
Development**

- 80 1 3 4
 81 1 2 3
 82 1 3 4
 83 1 3 4
 84 1 2 4
 85 2 3 4
 86 1 2 4
 87 1 2 3
 88 2 3 4
 89 1 2 4

**Group 5
Ecology**

- 100 1 2 3
 101 1 3 4
 102 1 2 4
 103 1 3 4
 104 1 3 4 5
 105 1 2 4 5
 106 1 2 4
 107 2 3 4
 108 1 2 3
 109 2 3 4

**Group 2
Human Physiology**

- 70 2 3 4
 71 1 2 4
 72 1 2 3
 73 1 2 3
 74 1 3 4
 75 1 2 4
 76 2 3 4
 77 1 3 4
 78 1 2 3
 79 1 3 4

**Group 4
Modern Genetics**

- 90 2 3 4
 91 1 3 4
 92 1 2 3
 93 1 2 4
 94 1 3 4
 95 1 2 3
 96 1 2 4
 97 2 3 4
 98 2 3 4
 99 1 2 4

Part III

Allow a total of 15 credits for only three of the five groups in this part. If all five groups are answered, only the first three should be considered.

| Group 1 | | | | | | |
|---|--|--|----------|----------|--|--|
| 110 | Data Table | | | | | |
| Temperature (°C) | Gill Cover Movements Per Minute | | | | | |
| 10 | 15 | | | | | |
| 15 | 25 | | | | | |
| 18 | 30 | | | | | |
| 23 | 60 | | | | | |
| 25 | 57 | | | | | |
| 27 | 25 | | | | | |
| <p>Rating instructions for question 110.</p> <p>The data table must be completed with temperature increasing from the top to the bottom of the data table as shown here.</p> <p>111–112 Example of Acceptable Response [See the back of the Scoring Key for Part I for acceptable graph.]</p> <p>Rating instructions for questions 111–112.</p> <p>111 Allow one credit for marking an appropriate scale on each labeled axis.</p> <p>112 Allow one credit for plotting the data correctly, surrounding each point with a small circle, and connecting the points.</p> | | | | | | |
| 113 | 1 | X | 3 | 4 | | |
| 114 | 1 | 2 | X | 4 | | |
| | | Group 2 | | | | |
| 115 | 1 | 2 | 3 | X | | |
| 116 | 1 | X | 3 | 4 | | |
| 117 | X | 2 | 3 | 4 | | |
| | | <p>The answer below represents a sample response. Other complete-sentence responses are acceptable. Allow no partial credit.</p> | | | | |
| 118 | They can escape from predators. | | | | | |
| 119 | 1 | 2 | 3 | X | | |
| | | Group 3 | | | | |
| 120 | 1 | 2 | X | 4 | | |
| 121 | 1 | X | 3 | 4 | | |
| | | <p>The answers below represent sample responses. Other complete-sentence responses are acceptable. Allow no partial credit.</p> | | | | |
| 122 | The field of view would be smaller. <i>or</i> The field of view would be darker. <i>or</i> The paramecium would appear enlarged. | | | | | |
| 123 | 1 | X | 3 | 4 | | |
| 124 | X | 2 | 3 | 4 | | |

Group 4

125 1 **X** 3 4

126 1 2 3 **X**

The answers below represent sample responses. Other complete-sentence responses are acceptable. Allow no partial credit.

127 The student is not wearing safety goggles.

or

The student is pointing the open end of the test tube toward his face.

128 1 **X** 3 4

129 **X** 2 3 4

Group 5

130 1 **X** 3 4

131 1 2 3 **X**

132 **X** 2 3 4

133 1 2 3 **X**

The answer below represents a sample response. Other complete-sentence responses are acceptable. Allow no partial credit.

134 Human cells have fewer chromocenters than the cells of flatworms and earthworms have.