# FOR TEACHERS ONLY

# Bio

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

## **BIOLOGY**

Wednesday, January 26, 2000—9:15 a.m. to 12:15 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	X	3	4	41	1	2	3	X
2	X	2	3	4	22	1	X	3	4	42	1	X	3	4
3	1	2	X	4	23	1	2	X	4	43	1	2	3	X
4	1	X	3	4	24	1	2	3	X	44	1	2	3	X
5	1	2	X	4	25	1	2	3	X	45	1	X	3	4
6	1	2	3	X	26	1	2	X	4	46	X	2	3	4
7	1	2	X	4	27	X	2	3	4	47	1	2	X	4
8	X	2	3	4	28	1	2	3	X	48	X	2	3	4
9	1	X	3	4	29	X	2	3	4	49	1	X	3	4
10	1	X	3	4	30	1	X	3	4	50	1	2	X	4
44							_	_				v	_	
11	1	2	3	X	31	X	2	3	4	51	1	X	3	4
12	1	2	3	4	31	<b>X</b>	2 <b>X</b>	3	4	51 52	1	2	3	4 <b>X</b>
12	1	2	X	4	32	1	X	3	4	52	1	2	3	X
12 13	1 <b>X</b>	2	<b>X</b> 3	4	32 33	1	<b>X</b> 2	3	4	52 53	1	2	3	X X
12 13 14	1 <b>X</b> 1	2 2 2	<b>X</b> 3 <b>X</b>	4 4 4	32 33 34	1 1 <b>X</b>	<b>X</b> 2 2	3 <b>X</b> 3	4 4 4	52 53 54	1 1 1	2 2 2	3 3 <b>X</b>	<b>X X</b> 4
12 13 14 15	1 <b>X</b> 1	2 2 2 2	3 X 3	4 4 4 <b>X</b>	32 33 34 35	1 1 <b>X</b> 1	2 2 2	3 <b>%</b> 3 3	4 4 4 <b>X</b>	52 53 54 55	1 1 1	2 2 2 2	3 3 X	<b>X X</b> 4 4
12 13 14 15 16	1 X 1 1	2 2 2 2	3 3 3 3	4 4 4 <b>X</b> 4	32 33 34 35 36	1 1 X 1	2 2 2 2	3 3 3 X	4 4 4 <b>X</b> 4	52 53 54 55 56	1 1 1 1	2 2 2 2	3 3 <b>X</b> 3	X X 4 4 X
12 13 14 15 16	1 X 1 1 X	2 2 2 2 <b>X</b> 2	3 3 3 3 3	4 4 4 <b>X</b> 4	32 33 34 35 36 37	1 X 1 1	2 2 2 2 2	3 3 3 <b>X</b> 3	4 4 4 <b>X</b> 4	52 53 54 55 56 57	1 1 1 1 X	2 2 2 2 2	3 3 <b>X</b> 3 3	X X 4 4 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.

<i>i</i>			

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

Re	Group 3 Reproduction and Development								
80	1	2	X	4					
81	1	2	3	X					
82	1	X	3	4					
83	1	2	3	X					
84	X	2	3	4					
85	1	X	3	4					
86	X	2	3	4					
87	1	2	X	4					
88	1	X	3	4					
89	1	2	3	X					

Group 5 Ecology								
100	1	X	3	4				
101	X	2	3	4				
102	1	2	X	4				
103	1	X	3	4				
104	1	2	X	4				
105	1	2	3	X				
106	1	X	3	4				
107	1	2	3	X				
108	X	2	3	4				
109	X	2	3	4				

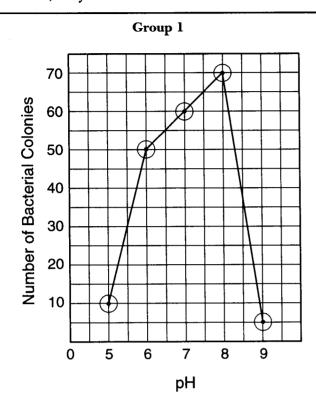
Group 2 Human Physiology								
70	X	2	3	4				
71	1	2	3	X				
72	X	2	3	4				
73	1	2	3	X				
74	1	X	3	4				
75	1	2	X	4				
76	1	2	3	X				
77	X	2	3	4				
78	1	2	X	4				
79	1	X	3	4				

Group 4 Modern Genetics								
90	1	2	3	X				
91	1	2	X	4				
92	1	X	3	4				
93	1	2	3	X				
94	1	X	3	4				
95	X	2	3	4				
96	1	2	X	4				
97	X	2	3	4				
98	X	2	3	4				
99	1	X	3	4				

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#### 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.



#### Rating instructions for questions 110-111.

- Allow one credit for marking an appropriate scale on each axis.
- Allow one credit for plotting the data correctly, surrounding each point with a small circle, and connecting the points.

#### 112 X 2 3 4

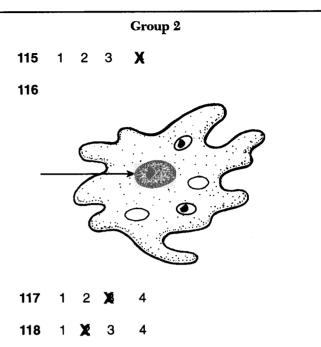
The answers below represent sample responses. Other correct complete-sentence responses are acceptable. Allow no partial credit.

113 As pH increases from 5 to 9, the number of colonies of the bacterium increases and then decreases.

or

As pH increases from 5 to 8, the number of colonies of the bacterium increases.

114 1 2 3 X



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

The student should turn the fine adjustment to sharpen the focus.

or

The student should adjust the diaphragm to allow more light to pass through the protist.

#### **Group 3**

120 1 2 3 X

**121** 1 2 **X** 4

122 X 2 3 4

**123** 1 **X** 3 4

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

124 If the temperature is decreased to 22°C, the rate of respiration in this species of fish will most likely decrease.

#### Group 4

**125** 1 2 **X** 4

126 1 2 3 X

**127 X** 2 3 4

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

128 A buildup of mucus in the lungs of a CF patient can leave the patient vulnerable to infections.

129 1 2 3 X

#### **Group 5**

130 X 2 3 4

131 B

**132** 1 **X** 3 4

**133** 1 2 **X** 4

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

134 The student should point the opening of the test tube away from himself or herself and others nearby.