FOR TEACHERS ONLY

Bio

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

BIOLOGY

Friday, June 19, 1998—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**	**X**	2	3	4	**41**	1	2	3	**X**
2	**X**	2	3	4	**22**	**X**	2	3	4	**42**	**X**	2	3	4
3	1	**X**	3	4	**23**	1	2	**X**	4	**43**	1	2	3	**X**
4	1	2	**X**	4	**24**	1	2	3	**X**	**44**	1	**X**	3	4
5	1	**X**	3	4	**25**	**X**	2	3	4	**45**	1	**X**	3	4
6	1	2	**X**	4	**26**	1	**X**	3	4	**46**	1	2	**X**	4
7	**X**	2	3	4	**27**	1	2	3	**X**	**47**	**X**	2	3	4
8	1	**X**	3	4	**28**	1	2	**X**	4	**48**	1	2	**X**	4
9	1	2	3	**X**	**29**	1	**X**	3	4	**49**	1	**X**	3	4
10	1	2	**X**	4	**30**	1	2	**X**	4	**50**	**X**	2	3	4
11	**X**	2	3	4	**31**	1	2	3	**X**	**51**	1	2	3	**X**
12	1	**X**	3	4	**32**	1	2	3	**X**	**52**	**X**	2	3	4
13	1	**X**	3	4	**33**	**X**	2	3	4	**53**	1	2	3	**X**
14	1	2	**X**	4	**34**	1	2	3	**X**	**54**	1	2	3	**X**
15	**X**	2	3	4	**35**	1	**X**	3	4	**55**	1	**X**	3	4
16	**X**	2	3	4	**36**	1	2	**X**	4	**56**	1	2	3	**X**
17	1	**X**	3	4	**37**	**X**	2	3	4	**57**	1	2	**X**	4
18	1	2	3	**X**	**38**	1	2	3	**X**	**58**	1	**X**	3	4
19	1	2	**X**	4	**39**	1	2	**X**	4	**59**	1	**X**	3	4
20	1	2	3	**X**	**40**	**X**	2	3	4					

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.

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

Group 2
Human Physiology

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

Group 3
Reproduction and Development

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

Group 4
Modern Genetics

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

Group 5
Ecology

100	**X**	2	3	4	5	
101	1	2	**X**	4	5	
102	1	2	3	**X**	5	
103	1	**X**	3	4		
104	**X**	2	3	4		
105	1	**X**	3	4		
106	1	2	3	**X**		
107	**X**	2	3	4	5	6
108	1	2	3	**X**	5	6
109	1	2	**X**	4	5	6

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

The answers below represent sample responses. Other complete-sentence responses are acceptable.

110 *A* It regulates the transport of materials into and out of the cell.
B It controls the activities of the cell.
C It provides a fluidlike environment in which organelles are suspended and within which many biochemical processes occur.

111 1 2 **X** 4

112 1 2 3 **X**

113 1 **X** 3 4

114 **X** 2 3 4

Group 2

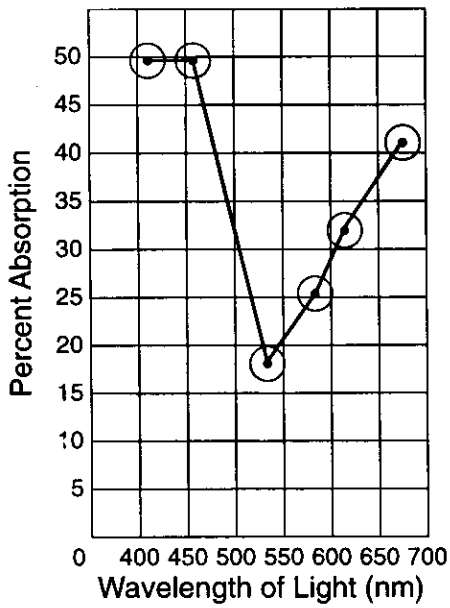
115

Color of Light	Wavelength of Light (nm)	Percent Absorption by Spinach Extract
violet	412	49.8
blue	457	49.8
green	533	17.8
yellow	585	25.8
orange	616	32.1
red	674	41.0

Rating instructions for question 115.

The data table may be completed with wavelength of light increasing from the top to the bottom of the data table as shown here *or* decreasing from the top to the bottom of the data table.

116–117



Rating instructions for questions 116–117.

116 Allow one credit for marking an appropriate scale on the vertical axis.

117 Allow one credit for plotting the data correctly, surrounding each point with a small circle, and connecting the points.

118 **X** 2 3 4

119 1 **X** 3 4

Group 3

120 1 **X** 3 4

121 1 2 3 **X**

The answer below represents a sample response. Other complete-sentence responses are acceptable.

122 Methylene blue was used to stain the specimen.

123 1 2 **X** 4

124 **X** 2 3 4

Group 4

125 1 2 3 **X**

126 1 2 3 **X**

127 1 **X** 3 4

The answers below represent sample responses. Other complete-sentence responses are acceptable.

128 The test tube could explode.

or

The stopper could be forced out as the tube is heated and could injure someone nearby.

129 **X** 2 3 4

Group 5

130 1 2 3 **X**

131 **X** 2 3 4

The answers below represent sample responses. Other complete-sentence responses are acceptable.

132 The molecule is a crystal with a tube running up the middle of it.

133 The willow tree bark contains salicylic acid, which is similar to acetylsalicylic acid, the active ingredient in aspirin.

134 If a nucleus is present, the organisms are protists.