## FOR TEACHERS ONLY

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

## **CHEMISTRY**

Tuesday, January 22, 2002-9:15 a.m. to 12:15 p.m., only

### SCORING KEY

#### Part I

Refer to the table on the answer sheet 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 | X | 3 | 4 |  |  |  |
| 2  | 1 | X | 3 | 4 | 22                  | 1 | 2 | 3 | X | 42 | X | 2 | 3 | 4 |  |  |  |
| 3  | 1 | 2 | X | 4 | 23                  | X | 2 | 3 | 4 | 43 | 1 | 2 | 3 | X |  |  |  |
| 4  | 1 | 2 | 3 | X | 24                  | 1 | 2 | 3 | X | 44 | 1 | X | 3 | 4 |  |  |  |
| 5  | X | 2 | 3 | 4 | 25                  | X | 2 | 3 | 4 | 45 | X | 2 | 3 | 4 |  |  |  |
| 6  | 1 | 2 | X | 4 | 26                  | 1 | 2 | 3 | X | 46 | 1 | 2 | 3 | X |  |  |  |
| 7  | X | 2 | 3 | 4 | 27                  | 1 | 2 | 3 | X | 47 | 1 | 2 | X | 4 |  |  |  |
| 8  | 1 | 2 | X | 4 | 28                  | 1 | 2 | X | 4 | 48 | 1 | 2 | X | 4 |  |  |  |
| 9  | 1 | 2 | X | 4 | 29                  | 1 | X | 3 | 4 | 49 | X | 2 | 3 | 4 |  |  |  |
| 10 | X | 2 | 3 | 4 | 30                  | 1 | 2 | X | 4 | 50 | 1 | 2 | X | 4 |  |  |  |
| 11 | 1 | X | 3 | 4 | 31                  | 1 | 2 | 3 | X | 51 | 1 | 2 | X | 4 |  |  |  |
| 12 | 1 | 2 | 3 | X | 32                  | 1 | 2 | 3 | X | 52 | 1 | X | 3 | 4 |  |  |  |
| 13 | 1 | 2 | X | 4 | 33                  | 1 | 2 | X | 4 | 53 | 1 | X | 3 |   |  |  |  |
| 14 | 1 | X | 3 | 4 | 34                  | X | 2 | 3 | 4 | 54 | X | 2 | 3 |   |  |  |  |
| 15 | 1 | X | 3 | 4 | 35                  | X | 2 | 3 | 4 | 55 | 1 | X | 3 |   |  |  |  |
| 16 | 1 | 2 | X | 4 | 36                  | 1 | X | 3 | 4 | 56 | 1 | X | 3 |   |  |  |  |
| 17 | 1 | 2 | 3 | X | 37                  | 1 | 2 | 3 | X |    |   |   |   |   |  |  |  |
| 18 | X | 2 | 3 | 4 | 38                  | 1 | X | 3 | 4 |    |   |   |   |   |  |  |  |
| 19 | 1 | X | 3 | 4 | 39                  | 1 | 2 | X | 4 |    |   |   |   |   |  |  |  |
| 20 | 1 | X | 3 | 4 | 40                  | 1 | X | 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 sheet 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 sheet is scored.

To facilitate scoring, the scoring key has been printed in the same format as the answer sheet. The scoring key may be made into a scoring stencil by punching out the correct answers. Be sure that the stencil is aligned with the answer sheet 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 sheet so that these item numbers appear through the appropriate holes.

#### CHEMISTRY — concluded

#### Part II

Allow a total of 35 credits, one credit for each question, for only seven of the twelve groups in this part. If more than seven groups are answered, only the first seven answered should be considered.

| Group 1<br>Matter and Energy |   |   | Group 2<br>Atomic Structure |   |                                     |  |      |       | Group 3<br>Bonding |                            |                   |      |      |   | Group 4<br>Periodic Table |              |                      |   |    |  |  |
|------------------------------|---|---|-----------------------------|---|-------------------------------------|--|------|-------|--------------------|----------------------------|-------------------|------|------|---|---------------------------|--------------|----------------------|---|----|--|--|
| 57                           | X | 2 | 3                           | 4 | 62                                  | 1                                      | X    | 3     | 4                  | 67                         | 1                 | Ŷ    | 3    | 4 | 72                        | 1            | 2                    | 3 | X  |  |  |
| 58                           | 1 | 2 | 3                           | x | 63                                  | 1                                      | 2    | 3     | X                  | 68                         | X                 | 2    | 3    | 4 | 73                        | 1            | 2                    | X | 4  |  |  |
| 59                           | 1 | 2 | 3                           | x | 64                                  | X                                      | 2    | 3     | 4                  | 69                         | 1                 | 2    | 3    | x | 74                        | 1            | 2                    | 3 | X  |  |  |
| 60                           | 1 | X | 3                           | 4 | 65                                  | 1                                      | X    | 3     | 4                  | 70                         | X                 | 2    | 3    | 4 | 75                        | 1            | 2                    | 3 | X  |  |  |
| 61                           | 1 | 2 | X                           | 4 | 66                                  | 1                                      | 2    | X     | 4                  | 71                         | 1                 | 2    | X    | 4 | 76                        | X            | 2                    | 3 | 4  |  |  |
|                              |   |   |                             |   |                                     |  |      |       |                    |                            |                   |      |      |   |                           |              |                      |   |    |  |  |
| Group 5                      |   |   |                             |   | Group 6<br>Kinetics and Equilibrium |  |      |       |                    | Group 7<br>Acids and Bases |                   |      |      |   | Group 8<br>Redox and      |              |                      |   |    |  |  |
| Mathematics of Chemistry     |   |   |                             |   | Kinetic                             | es ano                                 | d Eq | luili | brium              | A                          | eids a            | nd I | Base | s | Ele                       | nea<br>ectro |                      |   | ſy |  |  |
| 77                           | 1 | 2 | 3                           | X | 82                                  | X                                      | 2    | 3     | 4                  | 87                         | 1                 | 2    | X    | 4 | 92                        | 1            | 2                    | X | 4  |  |  |
| 78                           | 1 | X | 3                           | 4 | 83                                  | 1                                      | 2    | X     | 4                  | 88                         | X                 | 2    | 3    | 4 | 93                        | 1            | X                    | 3 | 4  |  |  |
| 79                           | 1 | 2 | 3                           | x | 84                                  | 1                                      | X    | 3     | 4                  | 89                         | 1                 | X    | 3    | 4 | 94                        | 1            | 2                    | 3 | X  |  |  |
| 80                           | 1 | 2 | 3                           | X | 85                                  | 1                                      | X    | 3     | 4                  | 90                         | 1                 | 2    | 3    | X | 95                        | 1            | X                    | 3 | 4  |  |  |
| 81                           | 1 | 2 | X                           | 4 | 86                                  | 1                                      | 2    | X     | 4                  | 91                         | 1                 | 2    | 3    | X | 96                        | 1            | 2                    | X | 4  |  |  |
|                              |   |   |                             |   |                                     |  |      |       |                    |                            |                   |      |      |   |                           |              |                      |   |    |  |  |
| Group 9                      |   |   |                             |   | Group 10                            |  |      |       |                    |                            | Group 12          |      |      |   |                           |              |                      |   |    |  |  |
| Organic Chemistry            |   |   |                             |   |                                     | Applications of<br>Chemical Principles |      |       |                    |                            | Nuclear Chemistry |      |      |   |                           |              | Laboratory Activitie |   |    |  |  |
| 97                           | X | 2 | 3                           | 4 | 102                                 |  |      | 3     |                    | 107                        | 1                 | X    | 3    | 4 | 112                       | X            | 2                    | 3 | 4  |  |  |
| 98                           | 1 | 2 | X                           | 4 | 103                                 | 1                                      | X    | 3     | 4                  | 108                        | 1                 | 2    | X    | 4 | 113                       | 1            | X                    | 3 | Z  |  |  |
| 99                           | 1 | X | 3                           | 4 | 104                                 | 1                                      | 2    | 3     | ×                  | 109                        | X                 | 2    | 3    | 4 | 114                       | 1            | 2                    | X | Z  |  |  |
| 100                          | 1 | 2 | 3                           | x | 105                                 | 1                                      | 2    | 3     | ×                  | 110                        | X                 | 2    | 3    | 4 | 115                       | 1            | 2                    | X | Z  |  |  |
| 101                          | 1 | 2 | X                           |   | 106                                 | W                                      | 2    | 3     | 4                  | 111                        | 1                 | 2    | v    | 4 | 116                       | Y            | 2                    | 3 | Z  |  |  |