INFORMATION IN THE TABLE BELOW AND IN THE TABLES ON PAGES 3-5 MAY BE USEFUL IN ANSWERING THE QUESTIONS IN THIS SECTION OF THE EXAMINATION.

| ENTS 2 He   | 6 8 | C N O F Ne | 14 15 16 17 | Si P S CI Ar | 32.06 35.45 39.95 | 32 33 34 35 36 | Ge As Se Br Kr | 72.59   74.92   78.96   79.90   83.80 | 50 51 52 53 54 | Sn Sb Te I Xe | 2   118.71   121.75   127.60   126.91   131.29 | 82 83 84 85 86 | Pb Bi Po At Rn | 8   207.2   208.98   (209)   (210)   (222) |           |                           |               |
|---|-----|------------|-------------|--------------|-------------------|----------------|----------------|---------------------------------------|----------------|---------------|--|----------------|----------------|--|-----------|---------------------------|---------------|
| BO NOT DETACH FROM BOOK. RIODIC TABLE OF THE ELEMENTS |     | <b>B</b>   | <u>`  </u>  |              | 26.98             | 30             | ı Zn Ga        | 5   65.39   69.72                     | 48             | cd In         | 37   112.41   114.82                           | 08             | ı Hg           | 7   200.59   204.38                        |           |                           |               |
| DO NOT DETACH FROM BOOK.  C TABLE OF THE EI           |     |            |             |              |                   | 28 29          | Ni Cu          | 58.69   63.55                         | 46 47          | Pd Ag         | 106.42   107.87                                | 78 79          | Pt Au          | 195.08   196.97                            | 110   111 | Ds Rg                     | (271) $(272)$ |
| SLE (   |     |            |             |              |                   | 27             | ပိ             | 58.93                                 | 45             | Rh            | 102.91   | 77             | Ir             | 192.2                                      | 109       | Mt                        | (268)         |
| TAI   |     |            |             |              |                   | 26             | Fe             | 55.85                                 | 44             | Ru            | 101.1  | 92             | O              | 190.2                                      | 108       | Hs                        | (277)         |
|   |     |            |             |              |                   | 25             | Mn             | 54.94                                 | 43             | Tc            | (88)   | 75             | Re             | 186.21                                     | 107       | Bh                        | (264)         |
| RIO   |     |            |             |              |                   | 24             | Cr             | 52.00                                 | 42             | Mo            | 95.94  | 74             | <b>&gt;</b>    | 183.85                                     | 106       | $\mathbf{S}_{\mathbf{S}}$ | (366)         |
| PE  |     |            |             |              |                   | 23             | >              | 50.94                                 | 41             | <b>S</b> P    | 92.91  | 73             | Га             |  |           | Db                        | (262)         |
|   |     |            |             |              |                   | 22             | Τi             | 47.90                                 | 40             | $\mathbf{Zr}$ | 91.22  | 72             | Ht             |  |           | Rf                        | (261)         |
|   |     |            |             |              |                   | 21             | Sc             | 44.96                                 | 39             | Y             | 88.91  | 57             |                |  |           | †Ac                       | 227.03        |
|   | 4   | <b>Be</b>  | 12          | Mg           | 24.30             | 20             | Ca             | 40.08                                 | 38             | $\mathbf{Sr}$ | 87.62  | 56             |                |  |           | Ra                        | 226.02        |
| 1<br><b>H</b>   | 3   | Li 9       | 11          | Na           | 22.99             | 19             | ×              | 39.10                                 | 37             | Rb            | 85.47  | 55             | Cs             | 132.91                                     | 87        | Fr                        | (223)         |

|                  | 58     | 65     | 09     | 61    | 62    | 63     | 64     | 9                      | 99     | <i>L</i> 9 | 89     | 69     | 02     | 11     |
|------------------|--------|--------|--------|-------|-------|--------|--------|------------------------|--------|------------|--------|--------|--------|--------|
| inthanide Series | Ce     | Pr     | Nd     | Pm    | Sm    | Eu     | Сd     | $\mathbf{T}\mathbf{b}$ | Dy     | Ho         | Er     | Tm     | Χþ     | Lu     |
|                  | 140.12 | 140.91 |        | (145) | 150.4 | 151.97 | 157.25 |                        | 162.50 | 164.93     | 167.26 | 168.93 | 173.04 | 174.97 |
|                  | 06     | 91     | _      | 93    | 94    | 95     | 96     |                        | 86     | 66         | 100    | 101    | 102    | 103    |
| Actinide Series  | Th     | Pa     |        | Np    | Pu    | Am     | Cm     | Bk                     |        | Es         | Fm     | Md     | No     | Lr     |
|                  | 232.04 | 231.04 | 238.03 | (237) | (244) | (243)  | (247)  | _                      | (251)  | (252)      | (257)  |        | (259)  | (262)  |