

APPENDIX

Table-I: Constants/Factors for Variable Control Charts

| Sample Size (n) | c_4 | d_2 | d_3 | A | A_2 | A_3 | B_3 | B_4 | D_1 | D_2 | D_3 | D_4 |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 2 | 0.798 | 1.128 | 0.853 | 2.121 | 1.880 | 2.659 | 0 | 3.267 | 0 | 3.686 | 0 | 3.267 |
| 3 | 0.886 | 1.693 | 0.888 | 1.732 | 1.023 | 1.954 | 0 | 2.568 | 0 | 4.358 | 0 | 2.574 |
| 4 | 0.921 | 2.059 | 0.880 | 1.500 | 0.729 | 1.628 | 0 | 2.266 | 0 | 4.698 | 0 | 2.282 |
| 5 | 0.940 | 2.326 | 0.864 | 1.342 | 0.577 | 1.427 | 0 | 2.089 | 0 | 4.918 | 0 | 2.114 |
| 6 | 0.952 | 2.534 | 0.848 | 1.225 | 0.483 | 1.287 | 0.030 | 1.970 | 0 | 5.078 | 0 | 2.004 |
| 7 | 0.959 | 2.704 | 0.833 | 1.134 | 0.419 | 1.182 | 0.118 | 1.882 | 0.204 | 5.204 | 0.076 | 1.924 |
| 8 | 0.965 | 2.847 | 0.820 | 1.061 | 0.373 | 1.099 | 0.185 | 1.815 | 0.388 | 5.306 | 0.136 | 1.864 |
| 9 | 0.969 | 2.970 | 0.808 | 1.000 | 0.337 | 1.032 | 0.239 | 1.761 | 0.547 | 5.393 | 0.184 | 1.816 |
| 10 | 0.973 | 3.078 | 0.797 | 0.949 | 0.308 | 0.975 | 0.284 | 1.716 | 0.687 | 5.469 | 0.223 | 1.777 |
| 11 | 0.975 | 3.173 | 0.787 | 0.905 | 0.285 | 0.927 | 0.321 | 1.679 | 0.811 | 5.535 | 0.256 | 1.744 |
| 12 | 0.978 | 3.258 | 0.778 | 0.866 | 0.266 | 0.886 | 0.354 | 1.646 | 0.922 | 5.594 | 0.283 | 1.717 |
| 13 | 0.979 | 3.336 | 0.770 | 0.832 | 0.249 | 0.850 | 0.382 | 1.618 | 1.025 | 5.647 | 0.307 | 1.693 |
| 14 | 0.981 | 3.407 | 0.763 | 0.802 | 0.235 | 0.817 | 0.406 | 1.594 | 1.118 | 5.696 | 0.328 | 1.672 |
| 15 | 0.982 | 3.472 | 0.756 | 0.775 | 0.223 | 0.789 | 0.428 | 1.572 | 1.203 | 5.741 | 0.347 | 1.653 |
| 16 | 0.984 | 3.532 | 0.750 | 0.750 | 0.212 | 0.763 | 0.448 | 1.552 | 1.282 | 5.782 | 0.363 | 1.637 |
| 17 | 0.985 | 3.588 | 0.744 | 0.728 | 0.203 | 0.739 | 0.466 | 1.534 | 1.356 | 5.820 | 0.378 | 1.622 |
| 18 | 0.985 | 3.640 | 0.739 | 0.707 | 0.194 | 0.718 | 0.482 | 1.518 | 1.424 | 5.856 | 0.391 | 1.608 |
| 19 | 0.986 | 3.689 | 0.734 | 0.688 | 0.187 | 0.698 | 0.497 | 1.503 | 1.487 | 5.891 | 0.403 | 1.597 |
| 20 | 0.987 | 3.735 | 0.729 | 0.671 | 0.180 | 0.680 | 0.510 | 1.490 | 1.549 | 5.921 | 0.415 | 1.585 |

