

## LAMPIRAN A

Nilai  $f(x)$ ,  $R(x)$ ,  $H(x)$ , dan  $C(tp)$

Berikut rangkuman hasil pengolahan data untuk nilai  $f(x)$ ,  $R(x)$ ,  $H(x)$  dan  $C(tp)$  pada perancangan perawatan preventif yang berbeda-beda.

| x             | f(x)            | R(x)            | H(x)            | C(tp)1         | C(tp)2         | C(tp)3         | C(tp)4         |
|---------------|-----------------|-----------------|-----------------|----------------|----------------|----------------|----------------|
| 248.25        | 0.00261         | 0.97726         | 0.023002        | 646.987        | 466.670        | 529.107        | 547.234        |
| <b>253.25</b> | <b>0.002776</b> | <b>0.963767</b> | <b>0.036906</b> | 643.390        | <b>466.648</b> | 527.852        | 545.621        |
| 258.25        | 0.002886        | 0.949595        | 0.051719        | 640.521        | 467.216        | 527.235        | 544.660        |
| <b>263.25</b> | <b>0.002963</b> | <b>0.934961</b> | <b>0.067251</b> | 638.216        | 468.219        | <b>527.099</b> | 544.193        |
| <b>268.25</b> | <b>0.003018</b> | <b>0.92</b>     | <b>0.083381</b> | 636.371        | 469.559        | 527.341        | <b>544.117</b> |
| <b>273.25</b> | <b>0.003055</b> | <b>0.904811</b> | <b>0.100029</b> | 634.909        | 471.167        | 527.891        | 544.360        |
| 278.25        | 0.00308         | 0.889467        | 0.117133        | 633.774        | 472.991        | 528.696        | 544.869        |
| 283.25        | 0.003095        | 0.874026        | 0.134646        | 632.921        | 474.993        | 529.715        | 545.602        |
| 288.25        | 0.003101        | 0.858532        | 0.152531        | 632.313        | 477.141        | 530.914        | 546.525        |
| 293.25        | 0.003101        | 0.843025        | 0.170758        | 631.921        | 479.412        | 532.267        | 547.613        |
| 298.25        | 0.003094        | 0.827537        | 0.189302        | 631.719        | 481.784        | 533.753        | 548.841        |
| <b>303.25</b> | <b>0.003083</b> | <b>0.812093</b> | <b>0.208141</b> | <b>631.687</b> | 484.240        | 535.353        | 550.192        |
| 308.25        | 0.003067        | 0.796717        | 0.227256        | 631.805        | 486.767        | 537.051        | 551.650        |
| 313.25        | 0.003048        | 0.781428        | 0.246632        | 632.059        | 489.353        | 538.834        | 553.200        |
| 318.25        | 0.003025        | 0.766245        | 0.266254        | 632.434        | 491.987        | 540.691        | 554.831        |
| 323.25        | 0.003           | 0.75118         | 0.28611         | 632.918        | 494.660        | 542.611        | 556.532        |
| 328.25        | 0.002972        | 0.736248        | 0.306188        | 633.501        | 497.366        | 544.586        | 558.295        |
| 333.25        | 0.002943        | 0.721459        | 0.326479        | 634.173        | 500.097        | 546.609        | 560.112        |
| 338.25        | 0.002911        | 0.706824        | 0.346974        | 634.926        | 502.849        | 548.673        | 561.976        |
| 343.25        | 0.002878        | 0.69235         | 0.367663        | 635.752        | 505.615        | 550.771        | 563.881        |
| 348.25        | 0.002844        | 0.678046        | 0.388541        | 636.644        | 508.392        | 552.900        | 565.822        |
| 353.25        | 0.002808        | 0.663916        | 0.409599        | 637.597        | 511.176        | 555.054        | 567.793        |
| 358.25        | 0.002771        | 0.649968        | 0.430831        | 638.604        | 513.964        | 557.230        | 569.791        |
| 363.25        | 0.002734        | 0.636206        | 0.452232        | 639.661        | 516.753        | 559.423        | 571.811        |
| 368.25        | 0.002695        | 0.622634        | 0.473796        | 640.763        | 519.540        | 561.631        | 573.851        |
| 373.25        | 0.002656        | 0.609255        | 0.495518        | 641.907        | 522.323        | 563.850        | 575.906        |
| 378.25        | 0.002617        | 0.596073        | 0.517393        | 643.088        | 525.100        | 566.079        | 577.975        |
| 383.25        | 0.002577        | 0.583088        | 0.539417        | 644.303        | 527.870        | 568.314        | 580.056        |
| 388.25        | 0.002537        | 0.570305        | 0.561585        | 645.549        | 530.631        | 570.554        | 582.144        |
| 393.25        | 0.002496        | 0.557723        | 0.583894        | 646.823        | 533.382        | 572.797        | 584.240        |
| 398.25        | 0.002455        | 0.545344        | 0.606339        | 648.122        | 536.121        | 575.041        | 586.341        |
| 403.25        | 0.002415        | 0.533168        | 0.628919        | 649.445        | 538.848        | 577.285        | 588.445        |
| 408.25        | 0.002374        | 0.521197        | 0.651628        | 650.788        | 541.561        | 579.528        | 590.550        |
| 413.25        | 0.002333        | 0.509429        | 0.674465        | 652.151        | 544.260        | 581.767        | 592.657        |
| 418.25        | 0.002292        | 0.497866        | 0.697425        | 653.530        | 546.944        | 584.003        | 594.762        |
| 423.25        | 0.002252        | 0.486505        | 0.720507        | 654.925        | 549.613        | 586.234        | 596.866        |
| 428.25        | 0.002211        | 0.475348        | 0.743708        | 656.333        | 552.266        | 588.459        | 598.967        |

|        |          |          |          |         |         |         |         |
|--------|----------|----------|----------|---------|---------|---------|---------|
| 433.25 | 0.002171 | 0.464393 | 0.767025 | 657.754 | 554.902 | 590.678 | 601.065 |
|--------|----------|----------|----------|---------|---------|---------|---------|

Lanjutan tabel di atas :

| x      | f(x)     | R(x)     | H(x)     | C(tp)1  | C(tp)2  | C(tp)3  | C(tp)4  |
|--------|----------|----------|----------|---------|---------|---------|---------|
| 438.25 | 0.002131 | 0.453638 | 0.790455 | 659.186 | 557.522 | 592.890 | 603.158 |
| 443.25 | 0.002091 | 0.443083 | 0.813998 | 660.627 | 560.125 | 595.094 | 605.246 |
| 448.25 | 0.002052 | 0.432727 | 0.837649 | 662.077 | 562.710 | 597.289 | 607.328 |
| 453.25 | 0.002012 | 0.422567 | 0.861407 | 663.535 | 565.278 | 599.476 | 609.404 |
| 458.25 | 0.001974 | 0.412603 | 0.885271 | 664.999 | 567.828 | 601.653 | 611.473 |
| 463.25 | 0.001935 | 0.402831 | 0.909237 | 666.468 | 570.361 | 603.820 | 613.534 |
| 468.25 | 0.001897 | 0.393252 | 0.933305 | 667.943 | 572.876 | 605.978 | 615.588 |
| 473.25 | 0.001859 | 0.383862 | 0.957473 | 669.421 | 575.373 | 608.125 | 617.634 |
| 478.25 | 0.001822 | 0.374659 | 0.981738 | 670.903 | 577.851 | 610.261 | 619.671 |
| 483.25 | 0.001785 | 0.365642 | 1.006099 | 672.387 | 580.312 | 612.387 | 621.699 |

#### Keterangan

f(x) : Fungsi probabilitas waktu kerusakan

R(x) : Fungsi keandalan pada waktu ke-x

H(x) : Ekspektasi frekuensi selama interval x

C(tp)1 : Ekspektasi total biaya untuk per satuan waktu pada saat perbaikan  
preventif di dalam jam produksi (jam operasi)

C(tp)2 : Ekspektasi total biaya untuk per satuan waktu pada saat perbaikan  
preventif di dalam jam produksi (jam istirahat)

C(tp)3 : Ekspektasi total biaya untuk per satuan waktu pada saat perbaikan  
preventif di luar jam produksi (lembur reguler)

C(tp)4 : Ekspektasi total biaya untuk per satuan waktu pada saat perbaikan  
preventif di luar jam produksi (lembur ekstra)