# LAMPIRAN

**Lampiran 1. Formulir Pengumpulan Data**

| **DATA DIRI RESPONDEN** | |
|---|---|
| Nama` | : Samudi |
| Tempat/tanggal lahir | : Serang, 1 Juni 1971 |
| Jenis kelamin | : Laki-laki |
| Agama | : Islam |
| Alamat | : Ciracas lama |
| No telp/HP | : - |
| **DATA PEKERJAAN** | |
| Stasiun kerja | : Pengukuran dan pemotongan. |
| Jumlah jam kerja | : 56 Jam (8 Jam / 7 hari kerja) |
| Lama bekerja | : 25 Tahun. |

**DATA DENYUT NADI**

| Hari Ke- | Denyut Nadi Istirahat | | | Denyut Nadi Kerja | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 07.45 | 12.45 | 17.25 | 08.00 | 09.00 | 10.00 | 11.00 | 13.00 | 14.00 | 15.00 | 16.00 |
| 1 | 79 | 82 | 84 | 100 | 103 | 107 | 112 | 105 | 119 | 117 | 118 |
| 2 | 83 | 84 | 85 | 104 | 110 | 114 | 119 | 105 | 116 | 119 | 119 |
| 3 | 82 | 82 | 84 | 104 | 103 | 109 | 115 | 107 | 119 | 120 | 117 |
| 4 | 81 | 83 | 83 | 111 | 117 | 116 | 120 | 116 | 120 | 119 | 119 |
| 5 | 80 | 81 | 81 | 101 | 109 | 111 | 115 | 110 | 119 | 120 | 120 |
| 6 | 80 | 82 | 84 | 103 | 110 | 117 | 119 | 113 | 120 | 121 | 119 |
| 7 | 80 | 82 | 85 | 100 | 107 | 111 | 118 | 114 | 120 | 120 | 119 |

**DATA DIRI RESPONDEN**

Nama` : Sukri

Tempat/tanggal lahir : Serang, 15 April 1981

Jenis kelamin : Laki-laki

Agama : Islam

Alamat : Ciracas lama

No telp/HP : -

**DATA PEKERJAAN**

Stasiun kerja : Pengukuran dan pemotongan

Jumlah jam kerja : 56 Jam (8Jam / 7 hari)

Lama bekerja : 20 Tahun

**DATA DENYUT NADI**

| Hari Ke- | Denyut Nadi Istirahat | | | Denyut Nadi Kerja | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 07.45 | 12.45 | 17.25 | 08.00 | 09.00 | 10.00 | 11.00 | 13.00 | 14.00 | 15.00 | 16.00 |
| 1 | 81 | 80 | 83 | 102 | 111 | 118 | 117 | 109 | 119 | 122 | 122 |
| 2 | 80 | 79 | 82 | 111 | 117 | 117 | 114 | 111 | 120 | 121 | 121 |
| 3 | 79 | 81 | 80 | 107 | 110 | 116 | 119 | 113 | 119 | 120 | 118 |
| 4 | 80 | 81 | 79 | 107 | 114 | 117 | 119 | 114 | 122 | 121 | 119 |
| 5 | 80 | 79 | 84 | 108 | 111 | 114 | 118 | 114 | 115 | 119 | 120 |
| 6 | 80 | 81 | 84 | 106 | 110 | 111 | 115 | 113 | 118 | 119 | 119 |
| 7 | 80 | 83 | 84 | 109 | 115 | 116 | 119 | 118 | 120 | 122 | 119 |

**DATA DIRI RESPONDEN**

Nama` : Heru

Tempat/tanggal lahir : Serang, 23 Februari 1987

Jenis kelamin : Laki-laki

Agama : Islam

Alamat : Sempu

No telp/HP : 081766820822

**DATA PEKERJAAN**

Stasiun kerja : Perakitan

Jumlah jam kerja : 56 Jam (8Jam/7hari)

Lama bekerja : 2 Tahun.

**DATA DENYUT NADI**

| Hari Ke- | Denyut Nadi Istirahat | | | Denyut Nadi Kerja | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 07.45 | 12.45 | 17.25 | 08.00 | 09.00 | 10.00 | 11.00 | 13.00 | 14.00 | 15.00 | 16.00 |
| 1 | 82 | 80 | 81 | 101 | 113 | 114 | 110 | 111 | 117 | 120 | 120 |
| 2 | 81 | 81 | 83 | 105 | 120 | 119 | 122 | 116 | 120 | 125 | 123 |
| 3 | 82 | 83 | 83 | 112 | 117 | 118 | 115 | 117 | 119 | 119 | 120 |
| 4 | 80 | 82 | 84 | 109 | 119 | 116 | 115 | 119 | 120 | 120 | 117 |
| 5 | 83 | 80 | 85 | 105 | 117 | 119 | 120 | 116 | 120 | 119 | 118 |
| 6 | 82 | 81 | 85 | 110 | 117 | 115 | 119 | 115 | 119 | 120 | 117 |
| 7 | 82 | 84 | 82 | 113 | 116 | 118 | 118 | 113 | 116 | 118 | 119 |

**DATA DIRI RESPONDEN**

Nama` : Hendar

Tempat/tanggal lahir : Bogor, 07 Maret 1981

Jenis kelamin : Laki-laki

Agama : Islam

Alamat : Sempu Kelapa Endep

No telp/HP : 085213337724

**DATA PEKERJAAN**

Stasiun kerja : Perakitan

Jumlah jam kerja : 56 Jam (8Jam/7hari)

Lama bekerja : 15 Tahun

**DATA DENYUT NADI**

| Hari Ke- | Denyut Nadi Istirahat | | | Denyut Nadi Kerja | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 07.45 | 12.45 | 17.25 | 08.00 | 09.00 | 10.00 | 11.00 | 13.00 | 14.00 | 15.00 | 16.00 |
| 1 | 79 | 81 | 81 | 103 | 119 | 111 | 117 | 107 | 120 | 118 | 119 |
| 2 | 80 | 81 | 84 | 103 | 117 | 118 | 120 | 117 | 121 | 124 | 125 |
| 3 | 80 | 81 | 79 | 106 | 112 | 116 | 118 | 115 | 120 | 119 | 120 |
| 4 | 79 | 83 | 82 | 113 | 116 | 119 | 120 | 116 | 119 | 118 | 121 |
| 5 | 82 | 79 | 81 | 107 | 115 | 114 | 117 | 115 | 119 | 118 | 119 |
| 6 | 79 | 80 | 83 | 107 | 114 | 114 | 116 | 112 | 118 | 119 | 119 |
| 7 | 81 | 82 | 79 | 106 | 116 | 117 | 115 | 118 | 119 | 116 | 120 |

**DATA DIRI RESPONDEN**

Nama` : Daryo

Tempat/tanggal lahir : Ciamis, 20 Juli 1958

Jenis kelamin : laki-laki

Agama : Islam

Alamat : Ciracas lama RT 03 RW 20 No 10

No telp/HP : 083150199900

**DATA PEKERJAAN**

Stasiun kerja : Penghalusan

Jumlah jam kerja : 56 Jam (8 Jam/7 hari)

Lama bekerja : 4 Tahun

**DATA DENYUT NADI**

| Hari Ke- | Denyut Nadi Istirahat | | | Denyut Nadi Kerja | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 07.45 | 12.45 | 17.25 | 08.00 | 09.00 | 10.00 | 11.00 | 13.00 | 14.00 | 15.00 | 16.00 |
| 1 | 78 | 80 | 80 | 100 | 108 | 108 | 107 | 105 | 118 | 113 | 117 |
| 2 | 79 | 80 | 80 | 102 | 112 | 114 | 117 | 115 | 118 | 119 | 120 |
| 3 | 79 | 78 | 81 | 104 | 110 | 113 | 115 | 110 | 115 | 118 | 117 |
| 4 | 80 | 81 | 80 | 100 | 109 | 114 | 115 | 116 | 118 | 116 | 119 |
| 5 | 79 | 80 | 80 | 104 | 110 | 111 | 114 | 110 | 112 | 117 | 115 |
| 6 | 78 | 80 | 83 | 103 | 110 | 112 | 111 | 107 | 116 | 115 | 118 |
| 7 | 80 | 81 | 80 | 102 | 109 | 110 | 111 | 109 | 115 | 115 | 116 |

**Lampiran 2. Hasil Perhitungan**

**Rata-rata Denyut Nadi Istirahat Selama Seminggu**

| Pekerja | Rata-rata denyut nadi istirahat |
|---|---|
| 1 | 82.24 |
| 2 | 80.88 |
| 3 | 80.76 |
| 4 | 82.19 |
| 5 | 79.86 |

Perhitungan :

$$\bar{x} = \frac{\text{rata-rata hari ke } 1 + \cdots + rata\text{-}rata\ hari\ ke\ 7}{7}$$

1. Pekerja 1

$$\bar{x} = \frac{81.67+84.00+82.67+82.33+80.67+82.00+82.33}{7}$$

$$\bar{x} = \frac{575.67}{7}$$

$\bar{x}$ = 82,24

2. Pekerja 2

$$\bar{x} = \frac{81.33+80.33+80.00+79.50+81.00+81.67+82.33}{7}$$

$$\bar{x} = \frac{566.17}{7}$$

$\bar{x}$ = 80,88

3. Pekerja 3

$$\bar{x} = \frac{80.33+81.67+80.00+81.33+80.67+80.67+80.67}{7}$$

$$\bar{x} = \frac{565.33}{7}$$

$\bar{x}$ = 80,76

4. Pekerja 4

$$\bar{x} = \frac{81.00+81.67+82.67+82.00+82.67+82.67+82.67}{7}$$

$$\bar{x} = \frac{575.33}{7}$$

$\bar{x}$ = 82,19

5. Pekerja 5

$$\bar{x} = \frac{79.33+79.67+79.33+80.33+79.67+80.33+80.33}{7}$$

$\bar{x} = \frac{559.00}{7}$

$\bar{x} = 79,86$

**Rata-rata Denyut Nadi Kerja Selama Seminggu**

| Pekerja | Rata-rata denyut nadi kerja |
|---|---|
| 1 | 113.48 |
| 2 | 115.63 |
| 3 | 116.02 |
| 4 | 116.54 |
| 5 | 112.04 |

Perhitungan :

$\bar{x} = \frac{\text{rata}-\text{rata hari ke } 1+\cdots+rata-rata\ hari\ ke\ 7}{7}$

1. Pekerja 1

   $\bar{x} = \frac{110.13+113.25+111.75+117.25+113.13+115.25+113.63}{7}$

   $\bar{x} = \frac{794.38}{7}$

   $\bar{x} = 113,48$

2. Pekerja 2

   $\bar{x} = \frac{110.13+113.25+111.75+117.25+113.13+115.25+113.63}{7}$

   $\bar{x} = \frac{794.38}{7}$

   $\bar{x} = 115,63$

3. Pekerja 3

   $\bar{x} = \frac{115.00+116.50+115.25+116.63+114.88+113.88+117.25}{7}$

   $\bar{x} = \frac{809.38}{7}$

   $\bar{x} = 116,02$

4. Pekerja 4

   $\bar{x} = \frac{113.38+118.75+117.13+116.88+116.75+116.50+116.38+}{7}$

   $\bar{x} = \frac{815.75}{7}$

   $\bar{x} = 116,54$

5. Pekerja 5

$$\bar{x} = \frac{109.50+114.63+112.75+113.38+111.63+111.50+110.88}{7}$$

$$\bar{x} = \frac{784.25}{7}$$

$$\bar{x} = 112{,}04$$

**Pengolahan denyut nadi kerja**

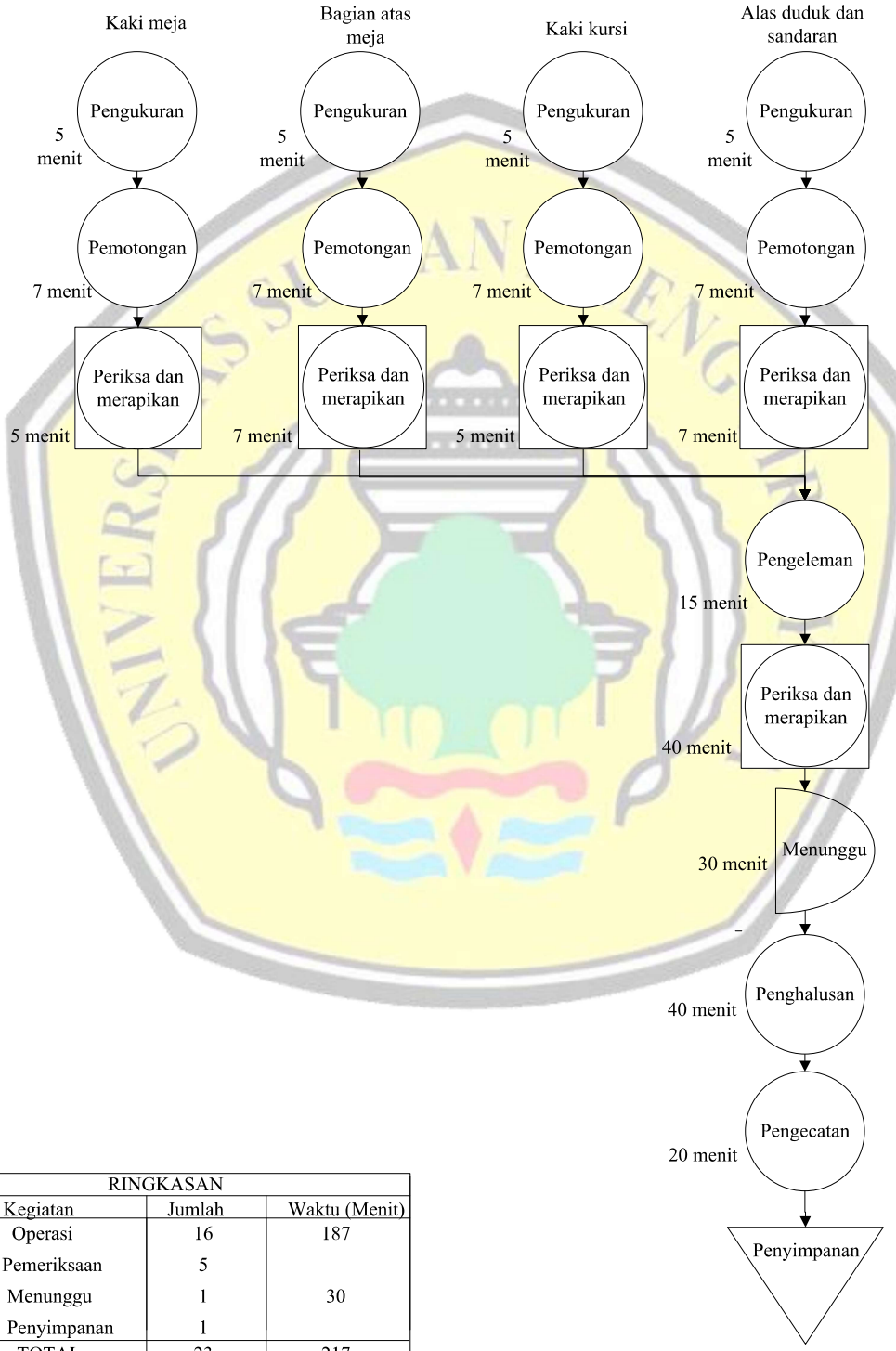
| Hari | Pekerja | Denyut nadi (bpm) | | | | | | | | Min | Max | Rata-rata | St.Dev |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 8 | 9 | 10 | 11 | 13 | 14 | 15 | 16 | | | | |
| ke- 1 | 1 | 100 | 103 | 107 | 112 | 105 | 119 | 117 | 118 | 100 | 119 | 110.13 | 7.3764 |
| | 2 | 102 | 111 | 118 | 117 | 109 | 119 | 122 | 122 | 102 | 122 | 115.00 | 7.0508 |
| | 3 | 103 | 119 | 111 | 117 | 107 | 120 | 118 | 119 | 103 | 120 | 114.25 | 6.4310 |
| | 4 | 101 | 113 | 114 | 110 | 111 | 117 | 121 | 120 | 101 | 121 | 113.38 | 6.3906 |
| | 5 | 100 | 108 | 108 | 107 | 105 | 118 | 113 | 117 | 100 | 118 | 109.50 | 6.1179 |
| **Rata-rata** | | | | | | | | | | 101.2 | 120 | 112.45 | 6.6733 |
| ke -2 | 1 | 104 | 110 | 114 | 119 | 105 | 116 | 119 | 119 | 104 | 119 | 113.25 | 6.2278 |
| | 2 | 111 | 117 | 117 | 114 | 111 | 120 | 121 | 121 | 111 | 121 | 116.50 | 4.1404 |
| | 3 | 103 | 117 | 118 | 120 | 117 | 121 | 124 | 125 | 103 | 125 | 118.13 | 6.8125 |
| | 4 | 105 | 120 | 119 | 122 | 116 | 120 | 125 | 123 | 105 | 125 | 118.75 | 6.1818 |
| | 5 | 102 | 112 | 114 | 117 | 115 | 118 | 119 | 120 | 102 | 120 | 114.63 | 5.7554 |
| Rata-rata | | | | | | | | | | 105 | 122 | 116.25 | 5.8236 |
| ke-3 | 1 | 104 | 103 | 109 | 115 | 107 | 119 | 120 | 117 | 103 | 120 | 111.75 | 6.8191 |
| | 2 | 107 | 110 | 116 | 119 | 113 | 119 | 120 | 118 | 107 | 120 | 115.25 | 4.7734 |
| | 3 | 106 | 112 | 116 | 118 | 115 | 120 | 119 | 120 | 106 | 120 | 115.75 | 4.8033 |
| | 4 | 112 | 117 | 118 | 115 | 117 | 119 | 119 | 120 | 112 | 120 | 117.13 | 2.5877 |
| | 5 | 104 | 110 | 113 | 115 | 110 | 115 | 118 | 117 | 104 | 118 | 112.75 | 4.5904 |
| Rata-rata | | | | | | | | | | 106.4 | 119.6 | 114.53 | 4.7148 |

| Hari | Pekerja | Denyut nadi (bpm) | | | | | | | | Min | Max | Rata-rata | St.Dev |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 8 | 9 | 10 | 11 | 13 | 14 | 15 | 16 | | | | |
| ke -4 | 1 | 111 | 117 | 116 | 120 | 116 | 120 | 119 | 119 | 111 | 120 | 117.25 | 3.0119 |
| | 2 | 107 | 114 | 117 | 119 | 114 | 122 | 121 | 119 | 107 | 122 | 116.63 | 4.8679 |
| | 3 | 113 | 116 | 119 | 120 | 116 | 119 | 118 | 121 | 113 | 121 | 117.75 | 2.6049 |
| | 4 | 109 | 119 | 116 | 115 | 119 | 120 | 120 | 117 | 109 | 120 | 116.88 | 3.6815 |
| | 5 | 100 | 109 | 114 | 115 | 116 | 118 | 116 | 119 | 100 | 119 | 113.38 | 6.1861 |
| Rata-rata | | | | | | | | | | 108 | 120.4 | 116.38 | 4.0705 |
| ke-5 | 1 | 101 | 109 | 111 | 115 | 110 | 119 | 120 | 120 | 101 | 120 | 113.13 | 6.6641 |
| | 2 | 108 | 111 | 114 | 118 | 114 | 115 | 119 | 120 | 108 | 120 | 114.88 | 4.0861 |
| | 3 | 107 | 115 | 114 | 117 | 115 | 119 | 118 | 119 | 107 | 119 | 115.50 | 3.9279 |
| | 4 | 105 | 117 | 119 | 120 | 116 | 120 | 119 | 118 | 105 | 120 | 116.75 | 4.9497 |
| | 5 | 104 | 110 | 111 | 114 | 110 | 112 | 117 | 115 | 104 | 117 | 111.63 | 3.9619 |
| Rata-rata | | | | | | | | | | 105 | 119.2 | 114.38 | 4.7180 |
| ke -6 | 1 | 103 | 110 | 117 | 119 | 113 | 120 | 121 | 119 | 103 | 121 | 115.25 | 6.2048 |
| | 2 | 106 | 110 | 111 | 115 | 113 | 118 | 119 | 119 | 106 | 119 | 113.88 | 4.7340 |
| | 3 | 107 | 114 | 114 | 116 | 112 | 118 | 119 | 119 | 107 | 119 | 114.88 | 4.0861 |
| | 4 | 110 | 117 | 115 | 119 | 115 | 119 | 120 | 117 | 110 | 120 | 116.50 | 3.2071 |
| | 5 | 103 | 110 | 112 | 111 | 107 | 116 | 115 | 118 | 103 | 118 | 111.50 | 4.9281 |
| Rata-rata | | | | | | | | | | 105.8 | 119.4 | 114.40 | 4.6320 |
| ke -7 | 1 | 100 | 107 | 111 | 118 | 114 | 120 | 120 | 119 | 100 | 120 | 113.63 | 7.2297 |
| | 2 | 109 | 115 | 116 | 119 | 118 | 120 | 122 | 119 | 109 | 122 | 117.25 | 3.9911 |
| | 3 | 106 | 116 | 117 | 115 | 118 | 119 | 116 | 120 | 106 | 120 | 115.88 | 4.3239 |
| | 4 | 113 | 116 | 118 | 118 | 113 | 116 | 118 | 119 | 113 | 119 | 116.38 | 2.3261 |
| | 5 | 102 | 109 | 110 | 111 | 109 | 115 | 115 | 116 | 102 | 116 | 110.88 | 4.5806 |
| Rata-rata | | | | | | | | | | 106 | 119.4 | 114.80 | 4.4903 |

## Lampiran 3. Peta Proses Operasi

**PETA PROSES OPERASI**

NAMA PRODUK : Meja
NOMOR PETA : 1
DI PETAKAN OLEH : Ronal
TANGGAL DIPETAKAN : 15 Apr 2024




| RINGKASAN | | |
|---|---|---|
| Kegiatan | Jumlah | Waktu (Menit) |
| Operasi | 16 | 187 |
| Pemeriksaan | 5 | |
| Menunggu | 1 | 30 |
| Penyimpanan | 1 | |
| TOTAL | 23 | 217 |

# DAFTAR RIWAYAT HIDUP PENULIS

**Biodata Pribadi**

| | |
|---|---|
| Nama | : Ronal Lumbantoruan |
| NIM | : 3333190054 |
| TTL | : Batam, 19 Agustus 2001 |
| Jenis Kelamin | : Laki-laki |
| Agama | : Kristen |
| Email | : ronalambok@gmail.com |
| No. Handphone | : 081365539953 |
| Alamat | : Batam, Kav Sagulung Mandiri Blok E No 25 |
| Fakultas | : Teknik |
| Program Studi | : Teknik Industri |

**Riwayat Pendidikan**

1. SDS Pondok Kasih Batam
2. SMPS Permata Harapan 2 Batam
3. SMAN 17 Batam
4. Universitas Sultan Ageng Tirtayasa Program Studi Teknik Industri

**Riwayat Organisasi**

1. Pengurus HMTI Departemen Huminfo 2020-2021

**Kompetensi**

1. Microsoft Office