

WORKSHEET RD-3

ELECTRICAL EQUIPMENT'S RELIABILITY

- A. Name of the analyzed component: _____
- B. Attempts' parameters: $n_0 =$ _____; $r_c =$ _____; $t_c =$ _____; $t_t =$ _____; $r_t =$ _____
- C. Unit for t: _____

1. Experimental Data

Table 1. Primary Sampled Data

| | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Exhausted Sample
 $S_E = \sum t_i =$ _____

Censored Sample
 $r_c =$ _____
 $S_c =$ _____

Table 2. Sorted Sampled Data

| | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Truncated Sample
 $t_t =$ _____
 $r_t =$ _____
 $S_T =$ _____

Table 3. Grouped Data (Exhausted Sample)

| Group Index | Grouping Interval $u_i \div u_{i+1}$ | Central Value u_{ci} | Δr_i | $r_i = \sum \Delta r_i$ | n_i | $R = \frac{n_i}{n_0}$ | $\lambda = \frac{\Delta n}{n_{i-1}} \cdot \frac{1}{\Delta t}$ |
|-------------|---|---------------------------|--------------|-------------------------|-------|-----------------------|---|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

2. Computed Indicators

- a) Exhausted Sample

$$MTBF = \frac{S_E}{n_0} = \text{_____}; s = \text{_____}$$

- b) Censored Sample

$$MTBF = \frac{S_C}{r_0} = \text{_____}; \lambda = \text{_____}$$

- c) Truncated Sample

$$MTBF = \frac{S_T}{r+1} = \text{_____}; \lambda = \text{_____}$$