Misael Espinosa Aguilar

1.- $$n = \frac{1.96^2 \times 0.5 \times 0.5 \times 10{,}000}{0.05^2 \times (10{,}000 - 1) + 1.96^2 \times 0.5 \times 0.5}$$

$$n = \frac{9.604}{25.9579}$$

$$n = 369.98$$

2.- N = población = 600 trabajadores

n = Muestra = 20 trabajadores

A 210 Trabajadores $\frac{0.35}{1}$ n/N → 7

B 180 Trabajadores $\frac{0.3}{1}$ n/N → 6

C 150 Trabajadores $\frac{0.25}{1}$ n/N → 5

D 60 Trabajadores $\frac{0.1}{1}$ n/N → $\frac{2}{20}$

Total 600

A = 20 × 0.35 = 7

B = 20 × 0.3 = 6

C = 20 × 0.25 = 5

D = 20 × 0.1 = 2

3.- $\frac{N^{\circ}\ muestra}{N^{\circ}\cdot T.trab} = \frac{180}{N}$

$N = 150 + 450 + 200 + 100 = 900$

$\frac{180}{900} = \frac{Personal}{150} = Personal = \frac{(180)(150)}{900} = 30$

$\frac{180}{900} = \frac{Ventas}{450} = Ventas = \frac{(180)(200)}{900} = 90$

$\frac{180}{900} = \frac{Contabilidad}{200} = Contabilidad = \frac{(180)(200)}{900} = 40$

$\frac{180}{900} = \frac{Atención}{100} = Atención = \frac{(180)(100)}{900} = 20$

Personal = 30
Ventas = 90
Contabilidad = 40
Atención = 20
180

4.- Media = 600 + 470 + 170 + 430 + 300 = 1970/5 = 394 mm.

Varianza = $O^2 = 206^2 + 76^2 + \frac{(-224)^2 + 36^2 + (-194^2)}{5} =$

$= 108.520/5 = 21.704$

Desviación $O = \sqrt{21.704} = 147.32 = \underline{147}$