

**Question # 40****Answer: E**

| $X$ | $F_n(x)$ | $F_n(x^-)$ | $F_0(x)$ | $ F_n(x) - F_0(x) $ | $ F_n(x^-) - F_0(x) $ |
|-----|----------|------------|----------|---------------------|-----------------------|
| 29  | 0.2      | 0          | 0.252    | 0.052               | 0.252                 |
| 64  | 0.4      | 0.2        | 0.473    | 0.073               | 0.273                 |
| 90  | 0.6      | 0.4        | 0.593    | 0.007               | 0.193                 |
| 135 | 0.8      | 0.6        | 0.741    | 0.059               | 0.141                 |
| 182 | 1.00     | 0.8        | 0.838    | 0.162               | 0.038                 |

where:

$$\hat{\theta} = \bar{x} = 100 \text{ and } F_0(x) = 1 - e^{-x/100}.$$

The maximum value from the last two columns is 0.273.