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COMPUTER ENGINEERING
18/ENG02/054

1. Initial temperature, $T_0 = 10°C$
Temperature after 5mins $= T_1 = 20°C$
final temperature, $T_2 = 25°C$

Hence, it took 5minutes for the temperature to rise by $(T_1 - T_0) = (20 - 10) = 10°C$

Time taken to reach 25°C,

$$\frac{T_2 - T_0}{T_1 - T_0} \times 5$$

$$\Rightarrow \frac{25 - 10}{20 - 10} \times 5$$

$$= \frac{15}{10} \times 5 = 7.5 \text{ minutes}$$

That is 7.5 minutes after the thermometer is inserted in the system.

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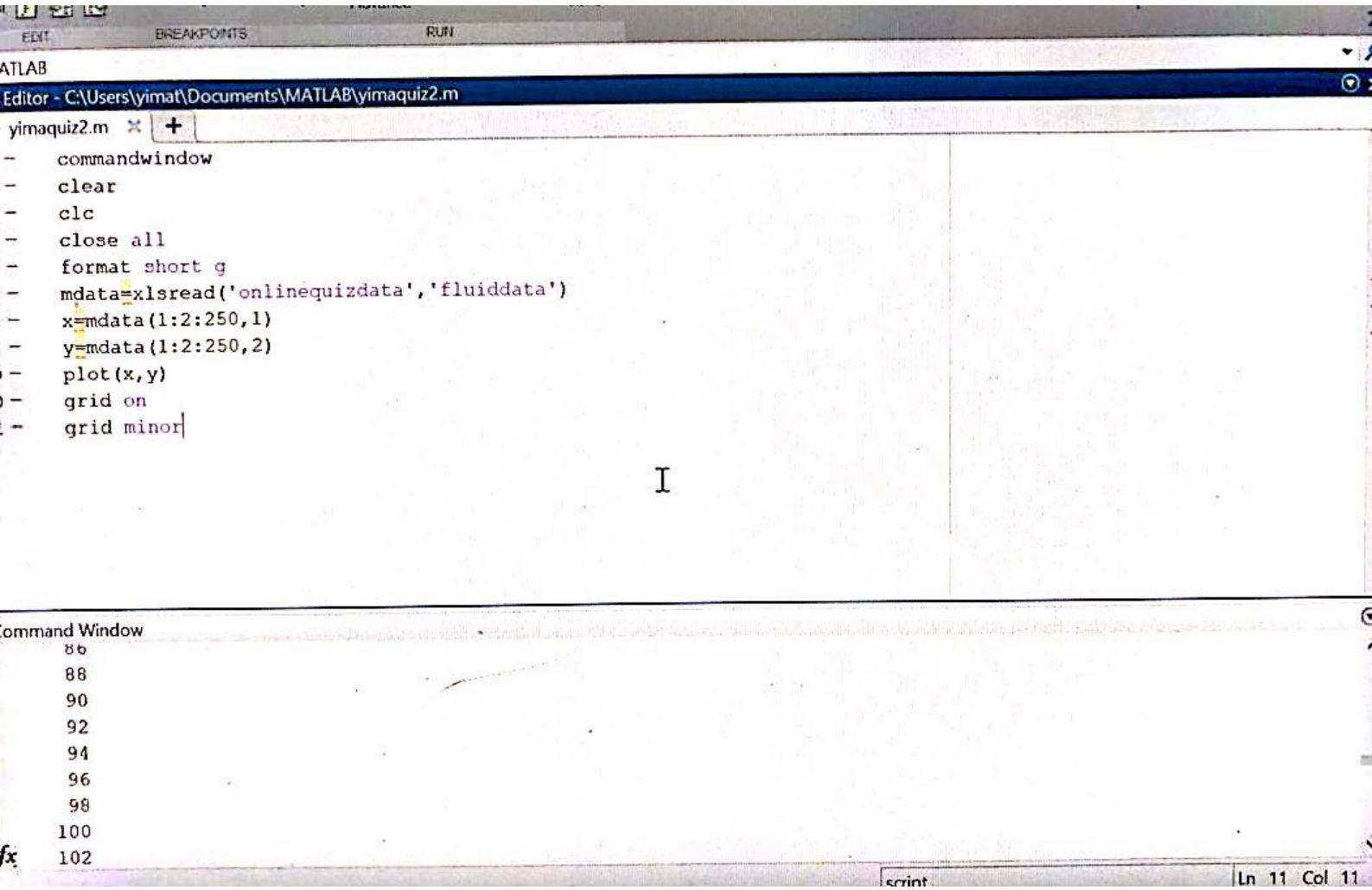

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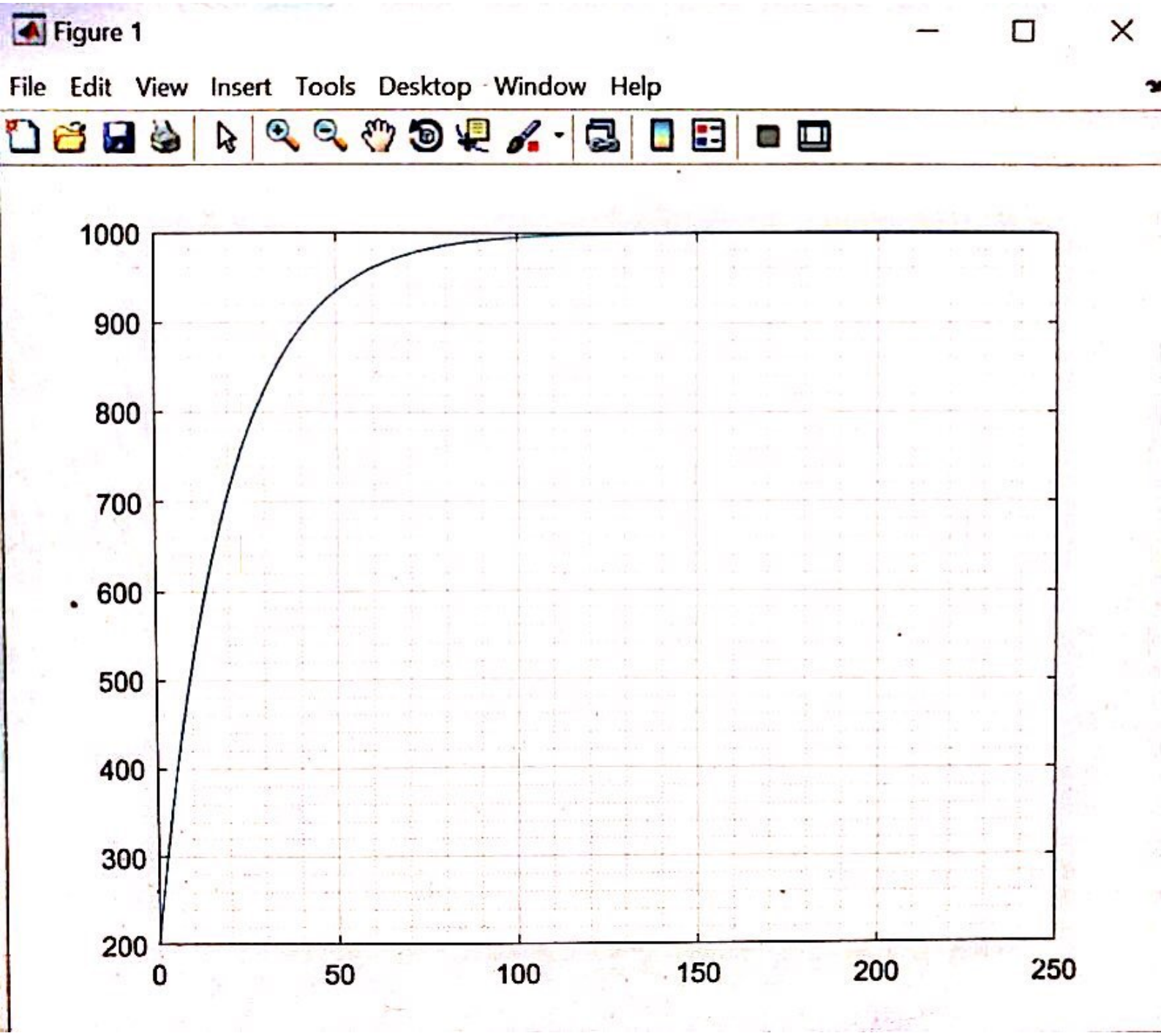

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