

DEPARTMENT OF BIOLOGY

TRANSPORT IN PLANTS

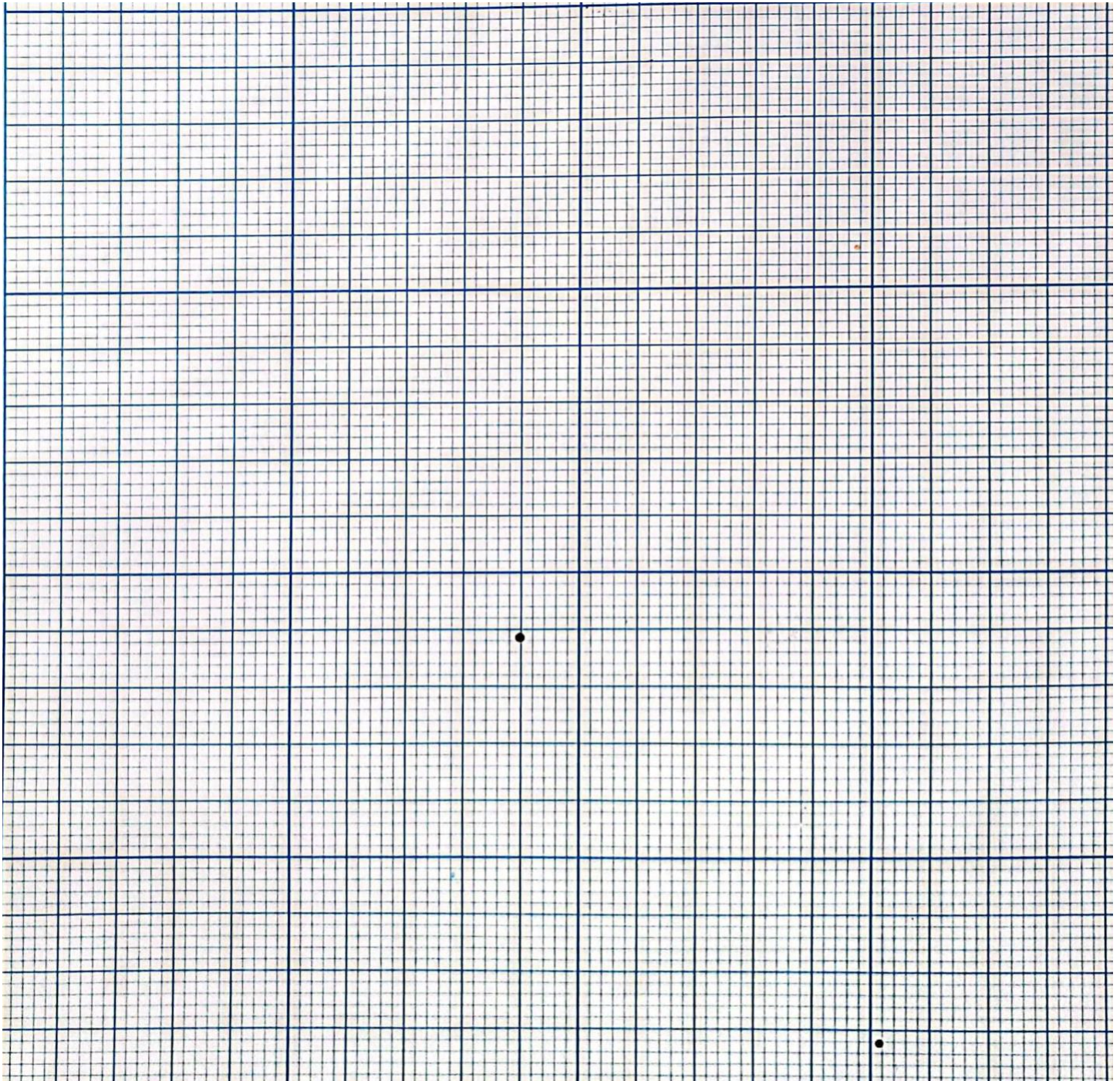
SECTION B

Attempt all questions in this section.

1. The table below records transpiration rates of group of plants under different environmental conditions of **temperature** and **relative humidity**.

Air temperature (°C)	Transpiration rates (mg water /cm ² /min	
	20% relative humidity	70% relative humidity
5	15	5.0
11	18.5	7.0
18	22.5	7.5
25	26.0	9.5
29	29.0	11.0

- a) Represent the above data on a the graph below. [08marks]



b) Determine the transpiration rates at different relative humidity when the temperature is 30°C. [02marks]

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c) Account for the transpiration rates at

i) **20% relative humidity** [02marks]

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ii) **70% relative humidity** [02marks]

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d) Explain the effect of increasing temperature on the rate of transpiration.
[03marks]

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e) How is transpiration beneficial to plants

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