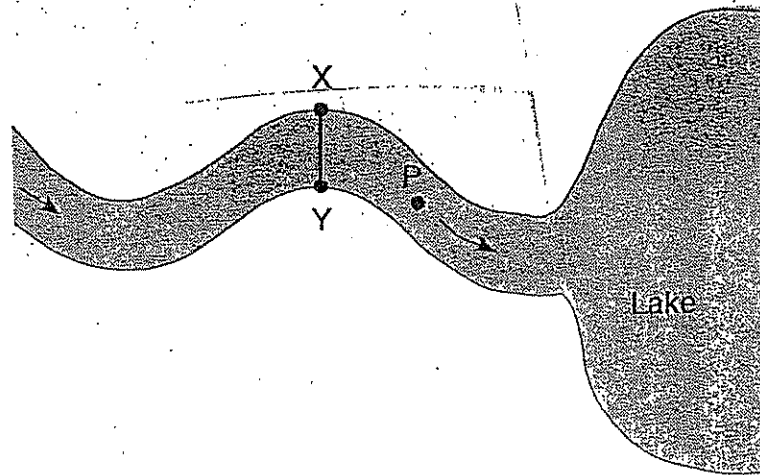


Base your answers to questions 109 through 112 on the diagram and the stream data table below.

The diagram represents a stream flowing into a lake. Arrows show the direction of flow. Point *P* is a location in the stream. Line *XY* is a reference line across the stream. Points *X* and *Y* are locations on the banks. The data table gives the depth of water in the stream along line *XY*.



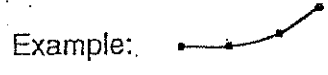
Stream Data Table

	Location X							Location Y
Distance from X (meters)	0	5	10	15	20	25	30	35
Depth of Water (meters)	0	5.0	5.5	4.5	3.5	2.0	0.5	0

Directions (109–110): Use the information in the data table to construct a profile of the depth of water. Use the grid provided on your answer paper, following the directions below.

Graph in the back

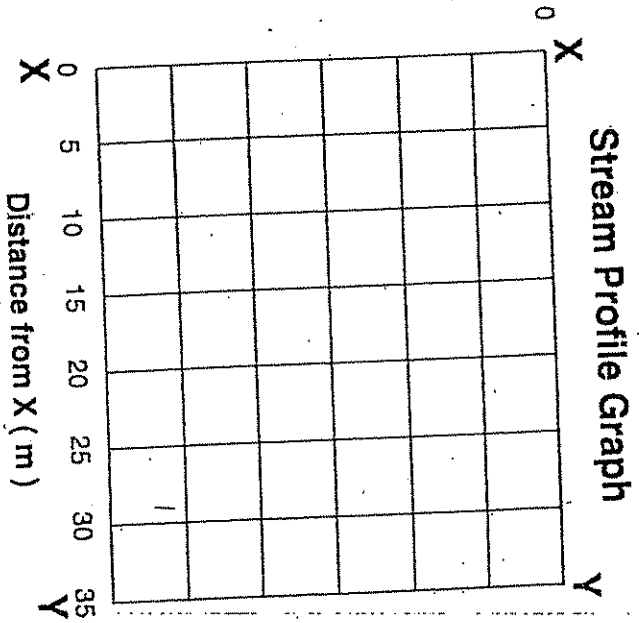
- 109 On the vertical axis, mark an appropriate scale for the depth of water. Note that the zero (0) at the top of the axis represents the water surface. [1]
- 110 Plot the data for the depth of water in the stream along line *XY* and connect the points. (Distance is measured from point *X*.) [2]



- 111 State why the depth of water near the bank at point *X* is different from the depth of water near the bank at point *Y*. [1]
- 112 At point *P*, the water velocity is 100 centimeters per second. State the name of the largest sediment that can be transported by the stream at point *P*. [1]

109-110

Depth of Water (m)



111

112

113

of

116