

7 (a) Explain the term *interference*.

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.....
..... [1]

(b) A ripple tank is used to demonstrate interference between water waves.

Describe

(i) the apparatus used to produce two sources of coherent waves that have circular wavefronts,

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..... [2]

(ii) how the pattern of interfering waves may be observed.

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..... [2]

(c) A wave pattern produced in (b) is shown in Fig. 7.1.

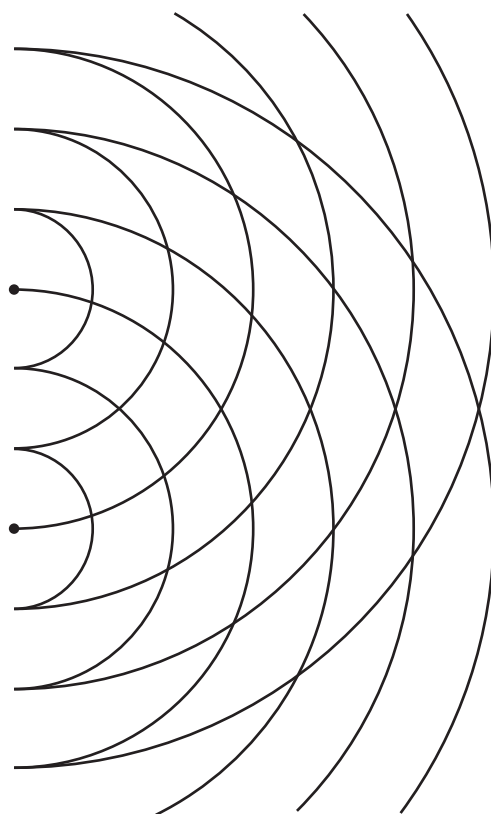


Fig. 7.1

Solid lines on Fig. 7.1 represent crests.

On Fig. 7.1,

- (i) draw two lines to show where maxima would be seen (label each of these lines with the letter X), [1]
- (ii) draw one line to show where minima would be seen (label this line with the letter N). [1]