8. Superposition

8.2 Diffraction

Paper 2

Question Paper

1 **(d)** The width of each slit in **(b)** is decreased by the same amount. There is no change to the separation of the slits.

Describe and explain the effect, if any, of this change on the appearance of the interference pattern.

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..... [2]

2 **(b)** State what is meant by the diffraction of a wave.

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..... [2]

3 **(c)** **(i)** Monochromatic light is incident on a diffraction grating. Describe the diffraction of the light waves as they pass through the grating.

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.....[2]

4 **(a)** When monochromatic light is incident normally on a diffraction grating, the emergent light waves have been diffracted and are coherent.

Explain what is meant by

(i) *diffracted* waves,

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.....[1]