

4 (a) For an oscillating body, state what is meant by

(i) forced frequency,

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..... [1]

(ii) natural frequency of vibration,

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..... [1]

(iii) resonance.

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..... [2]

(b) State and explain one situation where resonance is useful.

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..... [2]

(c) In some situations, resonance should be avoided.

State one such situation and suggest how the effects of resonance are reduced.

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..... [2]