4 CD players use digital signals to transfer information.



Earlier systems using vinyl discs produced analogue signals.



| (a) Describe the difference between digital signals and analogue signals. |     |
|---|-----|
|   | (2) |
|   |     |
|   |     |
|   |     |
|   |     |
|   |     |
|   |     |
|   |     |
|   |     |
|   |     |
| (h) Give and adventage of using digital signals                           |     |
| (b) Give <b>one</b> advantage of using digital signals.                   | (1) |
|   | (1) |
|   |     |
|   |     |
|   |     |
|   |     |

(c) A CD player is connected to this loudspeaker system.





The sound produced has a range of frequencies.

Use ideas about diffraction to explain why different frequencies require different sizes of loudspeaker.

|                               | (3) |
|-------------------------------|-----|
|                               |     |
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|                               |     |
| (Total for Question 4 = 6 mar | ks) |

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