

Q1.

Several telephone conversations need to be transmitted simultaneously between two locations.

Describe the process that allows these conversations to be carried by the same optical fibre.

In your answer you should explain:

- the importance of the sampling rate in the analogue-to-digital conversion
- the effect of resolution in this conversion
- the technique that is used to enable several conversations to be transmitted simultaneously.

You may use diagrams to help with your explanation.

(Total 6 marks)