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Stato Completato

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**Tempo
impiegato** 47 min. 22 secondi

Domanda 1

Completo

Which kinds of sound can be encoded using the MIDI standard?

- ☒ a. Western music
- ☐ b. A wide band noise
- ☒ c. A single note
- ☐ d. Voice
- ☐ e. Birds singing

Domanda 2

Completo

The encoding of an audio file using the MP3 standard use non tonal masking

Scegli una risposta:

- ☒ Vero
- ☐ Falso

Domanda 3

Completo

Describe the difference between symmetric and asymmetric [video encoding](#).

Symmetric and Asymmetric [video encoding](#) represent two different ways to compress video media.

In the **asymmetric compression** the computation requires more time during the encoding phase compared to the decoding step; this can lead to a better final quality of the video, compared to the counterpart of symmetric compression, but at the price to have a higher computational complexity. Practically, the elements that increases the computational cost of the encoding step are the size of the search area and the size of macroblocks in a frame. Larger is the search area and smaller are the macroblocks, more computational time is needed to encode a video. This is because the encoder performs a detailed analysis to find the best match between macroblocks, considering even minor differences across a wide area. This can be done by Sequential or Hierarchical search, therefore even the choice of the search algorithm influence the final computational cost. This kind of compression is suitable, for instance, for video storage.

On the other hand, the **symmetric compression** tries to balance the computational complexity between the encoding and decoding since they must be both in real-time, making this solution suitable for real-time applications such as videoconferences.

Two examples of asymmetric and symmetric compression standards are respectively MPEG and H.261.

Associate to each encoding cathegory the correct standards for digital video

Symmetric encoding

H.261, H.263, H.264

Asymmetric encoding

MPEG-1, MPEG-2, MPEG-4