

**1. The resolution is a:**

- quantitative audio measure
- measure of the audio quality
- quantitative video measure
- measure of the video quality

**2. The sampling rate is a:**

- quantitative audio measure
- measure of the audio quality
- quantitative video measure
- measure of the video quality

**3. The quantisation is a:**

- quantitative audio measure
- measure of the audio quality
- quantitative video measure
- measure of the video quality

**4. The bit depth is a:**

- quantitative audio measure
- measure of the audio quality
- quantitative video measure
- measure of the video quality

**5. The file size reduction from 4:4:4 sampling to 4:2:0 subsampling is:**

- $\frac{1}{4}$
- $\frac{1}{3}$
- $\frac{1}{2}$
- $\frac{3}{4}$

**6. By choosing a sampling rate of 96 kHz rather than 48 kHz we get:**

- same size and double information
- double size and double information
- same size and same information
- double size and same information

**7. By choosing a bit depth of 12 per channel rather than 8 we get:**

- 50 % bigger files and 50 % better quality
- 1600 % bigger files and 50 % better quality
- 50 % bigger files and 1600 % better quality
- 1600 % bigger files and 1600 % better quality

**8. A typical lossless compression rate is:**

- 1.5 : 1
- 2 : 1
- 2.5 : 1
- 3 : 1

**9. The current Bayer sensors only generate an incomplete RGB image:**

- $\frac{1}{3}$  red,  $\frac{1}{3}$  green and  $\frac{1}{3}$  blue
- $\frac{1}{2}$  red,  $\frac{1}{4}$  green and  $\frac{1}{4}$  blue
- $\frac{1}{4}$  red,  $\frac{1}{2}$  green and  $\frac{1}{4}$  blue
- $\frac{1}{4}$  red,  $\frac{1}{4}$  green and  $\frac{1}{2}$  blue

**10. The steps for file format transformations are:**

- decode → demultiplex → filter → multiplex → encode
- demultiplex → decode → filter → multiplex → encode
- demultiplex → decode → filter → encode → multiplex
- decode → demultiplex → filter → encode → multiplex

**11. Digital video is based on the following colour model:**

- R'G'B'
- Y'UV
- Y'IQ
- Y'C<sub>B</sub>C<sub>R</sub>

**12. The raw video data format “rgb48le” can hold the same image quality as:**

- yuv422p10le
- yuv444p16le
- bayer\_bggr16le
- rgb24