ENGLAND GCSE COMPUTER SCIENCE AQA · UNIT 3 · 10 QUESTIONS

Data Representation and Computer Systems — Practice Test

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **A smartphone records sound. What is the number of samples taken each second called?**

- A Colour depth used for images
- B Bit depth
- C Sample rate
- D Resolution

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2 **A laptop shows the colour of a pixel as the hexadecimal number 1A. What is its denary value?**

- A 110
- B 26
- C 16
- D 11

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3 **What is 00001010 after a right shift of one place?**

- A 00010100
- B 00000100
- C 00000101
- D 00001001

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4 **What is 00001001 + 00000110 in binary?**

A 01000101

B 00010000

C 00001111

D 00001110

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5 **What is the denary value of 00010100 after a left shift of 1 place?**

A 20

B 40

C 41

D 400

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6 **What does the arithmetic logic unit do?**

- A It controls the flow of data around the CPU
- B It stores the address of the next instruction, in some situations
- C It carries out arithmetic and logic operations
- D It fetches instructions from memory

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7 **What is the binary number for denary 42?**

- A 01010100
- B 00101010
- C 00101001
- D 00101011

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8 **A sound file has a sample rate of 44100 samples per second, a bit depth of 16 bits and a duration of 30 seconds. How many bytes does the sound file take up before compression?**

- A 1,323,000
- B 26,460,000
- C 5,292,000
- D 2,646,000

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9 **What is the largest denary number that can be stored in 4 bits?**

- A 16
- B 15
- C 8
- D 4

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10 **What is sample rate?**

A How loud the sound file can be played

B How many bits are used for each sample

C How many samples are taken each second

D How long the sound file lasts in seconds

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ANSWER KEY

1. C
2. B
3. C
4. C
5. B
6. C
7. B
8. D
9. B
10. C

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