



İSTANBUL TECHNICAL UNIVERSITY
Department of Computer Engineering
BLG103E – Introduction to Information Systems – Fall 2013
Quiz 1 Question & Answer Sheet

QUIZ 1

Duration: 20 minutes

- Rules:**
- Not open-book. No extra notes or papers are allowed.
 - Cellphones must be put away. Calculators are not allowed.
 - Questions are fill-in-the-blank and multiple choice.

1

When designing a poster for his signal processing conference, Berk wants to include text shaped as a cosine signal. He is probably going to use the _____ capability of Inkscape.

2

Sketch the output table of the following latex code. Ensure that you illustrate different alignments carefully.

```
\begin{tabular}{| l || r || c | }  
 \hline  
 12 & 2 & 3 \\ \hline  
 4 & 54 & 6 \\  
 7 & 8 & 19 \\ \hline  
 \end{tabular}
```

3

Which of the following are character encodings:

- A: ASCII & UTF-8.
- B: Arial & Times New Roman.
- C: 24bit and 8bit.
- D: PNG and JPG.
- E: English and Turkish.

Circle one letter.

4

An uncompressed 8-bit 320x320 grayscale image can have _____ **different colours** in _____ **different pixels**, and should take up _____ **bytes** of disk space.

5

Write approximate RGB values for the following colours (the first one is done for you):

Yellow: R: 255 G: 255 B: 0

Blue: R: _____ G: _____ B: _____

Magenta (purple): R:_____ G:_____ B:_____

Black: R:_____ G:_____ B:_____

6

I have an image from a photograph of myself and a friend. I want to swap our heads in the image.

- Name one good software for doing this: _____
- Name a good format for saving this while editing: _____
- Name a good format to use to send it to my friends by email: _____

7

What are the basic units in a vector image?

A: Pixels

B: Colours

C: Shapes & curves

D: Images

Circle one letter.

8

What are the basic units in a raster image:

A: Pixels

B: Shapes & curves

C: Colours

D: Images

Circle one letter.

9

In an LibreOffice Calc spreadsheet, the following is entered:

	A
1	1
2	1
3	=SUM(A1:A2)
4	
5	

The user then **copies** the contents of cell A3 to cells A4 and A5.
Please fill in the resulting displayed contents of cells A3, A4 and A5:

	A
1	1
2	1
3	
4	
5	

10

In **1-3 words**, note 3 things wrong with this slide:

1: _____

2: _____


3: _____

11

To add a page count to every slide in a slide show with a few clicks one should open up:

How two

- First of all insert a Microsoft CD into your toaster, then press the Start button. When you see the login prompt, accept all license conditions then eat your toast.
- Start your editing by inserting a glorious background, preferably dark so that it makes you look like a l33t hacksaw. Then get some cool pictures from the internet and then if Microsoft does not do it for you, decrease the font size so you can fit more marvellous ideas into your slide.
- Try to look professional by using excruciatingly magnanimous words, but try not to use them wrong. Nobody spell-checks these days though, so don't worry about that.
- Finish off by surveying your marvellous ideas, then add some more in smaller font if you don't think they are quite as important; well, maybe they're still important but you've got to draw the line somewhere and if you've got time while they're shouting at you to go off the stage maybe you can also talk about something other people care about.
- Actually, at this point it may be good to write something about your legal options with respect to trespass. It is perfectly legal to do illegal things if you pretend not to know that they're illegal. When cornered by police it is sometimes good to shout something about the constitution, but try not to get tricked into saying which bit of the constitution you mean.



12

Wikipedia says “In the computer science field of artificial intelligence, a genetic algorithm (GA) is a search heuristic that mimics the process of natural selection.”

Which of the following statements avoid plagiarism?

Statement	Plagiarism	Not Plagiarism
Genetic algorithms are search heuristics that copy the process of natural selection.	<input type="checkbox"/>	<input type="checkbox"/>
According to Wikipedia, a Genetic Algorithm is a search heuristic that mimics the process of natural selection.	<input type="checkbox"/>	<input type="checkbox"/>
Wikipedia says that a Genetic Algorithm is a “search heuristic that mimics the process of natural selection”.	<input type="checkbox"/>	<input type="checkbox"/>
Genetic algorithms are search algorithms, based on the philosophy of natural selection, that use population-based random search.	<input type="checkbox"/>	<input type="checkbox"/>

13

In LibreOffice Writer, in order to ensure that figure numbers are referred to correctly in the text, it is necessary to:

- A: Use styles and headings.
- B: Update the numbers manually (WYSIWYG).
- C: Use latex instead.
- D: Use captions and cross-references.
- E: Write a macro (program) to do it.

Circle one letter.

14

The following bit string represents a 3x3 1-bit image. Please draw the image.

101000101

