[2.5 marks] How many different numbers can we represent using 5 bits?

32

16

5

10000

10

[2.5 marks] Which of the following would be the biggest value?

1 TiB

1 TB

1 GiB

1 GB

1000 GB

[2.5 marks] Which of the following components are NOT likely to be found in a system unit?

Monitor

CPU

HDD

Motherboard

RAM

[2.5 marks] Approximately how long would you have to wait before you could buy a CPU with four times as much computing power for the same price? Use the definition of Moore’s Law given in lectures.

3 years

18 months

2 years

4 years

16 years

[2.5 marks] Which of the following statements about software is FALSE?

All software is automatically protected by software patent law

All software is automatically protected by copyright law

Free software, as defined by Richard Stallman, can be freely copied

Shareware is not free software as defined by Richard Stallman

Some proprietary software is free to download and use

[2.5 marks] What does TCP do?

Divides a message into packets, checks that they have arrived safely and recombines the original message.

Converts an IP address into a human-readable domain name.

Forms a continuous connection from a source machine to a destination machine.

Creates a secure connection over which your credit card can be safely sent.

Sends information unreliably, but faster than other protocols

[2.5 marks] What was the main assumption behind the design of the Internet?

Nodes would be unreliable.

The Internet would be used for business.

The Internet would help win the space race against the Soviet Union.

Digital information can be copied, so nodes could easily be reproduced.

The growth rate of the Internet would be exponential

[2.5 marks] Which of the following protocols is used to receive email?

IMAP

SMTP

UDP

VOIP

SSH

[2.5 marks] Which of the following statements about email is FALSE?

Email is securely encrypted when it is sent from one mail server to another

It is legal for companies to read their employees’ email

Even when email is deleted, a copy of the email may be archived by a system administrator

Different protocols are used to send and receive email messages

Any type of file can be sent as an email attachment

[2.5 marks] Which of the following statements about blogs is TRUE?

Blog posts are normally viewed in reverse chronological order

Blogs are double-blind peer reviewed to ensure high quality content

Blogs can only contain plain text, but can link to images hosted elsewhere

Blogs are objective

Blog entries are indexed automatically, so you always know the topic of the blog

[2.5 marks] Which statement about wikis is TRUE?

Most wikis can be edited easily

All wikis have unrestricted access, so anyone can edit them

Information in a wiki can’t be trusted since it has been written by an individual

Research that references Wikipedia pages is poor research that will not be published

If a wiki page is vandalized, the information on the page cannot be retrieved, which is why vandalism is such a problem for wikis.

[2.5 marks] Who created the World Wide Web?

Tim Berners-Lee

Ted Nelson

Vannevar Bush

Bill Gates

ARPA

[2.5 marks] What is the purpose of a web cache?

Store a copy of web pages so they can be accessed faster

Prevent access to inappropriate material

Prevent an unauthorized user from accessing a private network

Keep a log of all the visited pages

Visualize the web to help with navigation

[2.5 marks] What is ASCII?

A standard mapping of characters to numbers

American standard characters for information input

A 16 bit code used to represent different characters

A picture constructed using only letters and numbers

A protocol used to transmit plain text

[2.5 marks] Why are standard file formats important for a word processor?

So that documents can be shared between different applications

So that the time taken to learn an interface is not wasted

So that documents created by the word processor take up a small amount of disk space

So that a document appears the same on the screen as it does when printed

So that PostScript can be used to print

[2.5 marks] How many **bytes** are required to store an image that is 20 pixels wide, 10 pixels high, and uses 16 colours?

100 bytes

200 bytes

3200 bytes

1600 bytes

800 bytes

[2.5 marks] Which of the following was NOT a criticism of PowerPoint by Tufte?

PowerPoint has a limited range of templates

PowerPoint reduces the information available to an audience

PowerPoint forces all presentations to fit the same mould

PowerPoint encourages people to focus on style over content

PowerPoint is particularly poor at representing tables of data

[2.5 marks] Which of the following statements about PowerPoint presentations is TRUE?

Presentations should not display more than 1 slide every 30 seconds on average

Presentations should use animation to make the slides more interesting

Text in upper case should be used for headings since it is easier to read

Between 3 and 6 different font typefaces should be used in a single presentation.

Using at least one piece of clip art per page gives a consistent, professional appearance

[2.5 marks] Which of the following statements about computer graphics is FALSE?

Ray tracing is a fast rendering technique used for computer games

Images generated for computer games have a low polygon count to speed up rendering

Phong shading can be used to create the appearance of a smooth shiny surface

Texture mapping is used to project a flat image onto a 3D model

Many computer generated images appear too perfect because irregularity is difficult to model

[2.5 marks] Which of the following is most difficult to render accurately?

Translucency

Plain colour

Reflection

Transparency

Refraction