

2014 HIGHER SCHOOL CERTIFICATE EXAMINATION
Information and Digital Technology
Web and Software Applications

Section II

30 marks

Attempt Questions 21–25

Allow about 40 minutes for this section

Answer the questions in the spaces provided. These spaces provide guidance for the expected length of response.

Question 21 (6 marks)

- (a) Why are power leads tagged? 2

to outline specifics such as
Date it was serviced, who
serviced it and to show it
is usable or in fact.

- (b) Describe how a workstation can be set up to minimise neck, back and wrist pain. 4

workstations following an
ergonomical structure minimises
user strain. Having the monitor
at eye level reduces neck
strain. Positioning the chair
half a metre away and from
the table and adjust the
back so its upright and feet
firmly on the floor. Having elbows
at 90° and wrists placed
flat against the keyboard/mouse
all helps in order to minimise
strain. along with regular breaks
from the computer and stretches
before & after using.

Question 22 (4 marks)

This diagram shows the home page for the ‘BullsEye’ operating system.

The screenshot shows the homepage of the 'BullsEye O.S.' website. At the top left is the logo 'BullsEye O.S.' with the tagline 'Your Operating System'. To the right is a large button labeled 'DOWNLOAD HERE!'. Below the logo is a horizontal navigation bar with links: Home, About, Documentation, Community, Developers, and Support. The 'Home' link is highlighted with a grey background. The main content area starts with a welcome message: 'Welcome to BullsEye'. It explains that BullsEye O.S. is an open-source operating system developed by a community of experts, available free of charge for public use and modification. It states that the download is provided without prejudice and does not make financial gain. The page also mentions a latest release (BE 2.1.1) containing bug fixes and beta testing on mobile and handheld devices. At the bottom are three calls-to-action: 'DOWNLOAD <<ISO IMAGE>>', 'GET SUPPORT <<CHAT>> <<Email>>', and 'CONTRIBUTE <<CODE>> <<DONATE>>'.

- (a) Identify TWO key features that define BullsEye O.S. as open source software. 2
- 1. Bottom left corner gives you the option to code & Donate.
2. The developer tab on the NAV Bar.
3. It's "Source code" is free and available for public use and modification.*
- (b) Outline a procedure for installing BullsEye O.S. using the ISO image from this website. 2
- installing it on Flash drive or disk, restarting computer with disk/flash drive inserted and entering bios selecting the iso to enter bios and select "boot from usb/disk" and following installation method to complete the installation.*

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Section II (continued)

Question 23 (5 marks)

- (a) Why is it NOT necessary to run a disk defragmenting utility on a solid state drive? 1

Solid state drives can't be organised where HDD can be.

- (b) The following is part of a server backup log from a small business. 4

| Date | Backup type | Media type | Media ID | Verified |
|-----------|--------------|------------|----------------------|----------|
| 3/10/2014 | Full | HDD | 131003-A 131003-B | ✓ |
| 6/10/2014 | Incremental | Cloud | 131006-A | ✓ |
| 7/10/2014 | Incremental | Cloud | 131007-A | ✓ |
| 8/10/2014 | Differential | DVD | 131008-A | ✓ |
| 9/10/2014 | Incremental | Cloud | 131009-A | ✓ |

Using the information in the backup log, describe and justify the most efficient procedure for restoring the full system in the event of a hardware failure on 10/10/2014.

Start by using the full backup on HDD will allow for more secure restore, followed by this the differential backup from DVD as it will update changes in between 3/10 - 7/10 and finally restoring the incremental backup via the Cloud as a final means of resecuring all lost data.

Question 24 (6 marks)

- (a) Using an example, distinguish between a formula and a function in a spreadsheet. 2

A formula uses data entered to relay ~~the~~ more or calculated data in another cell where functions alter data using pre-existing information e.g. formula to calculate cell $B3 * B4$ function to change text font.

- (b) Describe file management functions that need to be implemented to ensure that a confidential document can only be accessed by authorised users and that the document is up to date. 4

Having restricted folders that require passwords ~~the~~ or even a particular account that can only access it ensures that confidential documents don't get incorrectly accessed. Similar to how schools block access to folders for students but teachers can access / edit them.

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Section II (continued)

Question 25 (9 marks)

- (a) What is a benefit of using cascading style sheets (CSS) in website development? 1

It reduces clutter on the actual page and can be called upon separately. A large amounts of styles can be added into a page using one line of code.

- (b) Why is it useful for a web author to understand coding as well as WYSIWYG authoring?

It allows better and more structured code as well as adding to functionality of the web page. Some elements of web design require both code and wysiwyg in order to complete the task. For example altering Spry widgets beyond the programs limitations requires coding knowledge.

Question 25 continues on page 14

Question 25 (continued)

- (c) This is the source code for a webpage.

```
<!DOCTYPE html>
<html lang="en">

<head>
<title>My Holiday</title>
</head>
<body style="background-color:yellow; font-family:arial;">

<h1>My Holiday</h1>
<p>We went to <strong><em>Hawaii</em></strong> by plane, then cruised to 4
<Strong><em>Tahitian islands</em></strong> on a cruise boat</p>
<p>We came back to Sydney on the cruise boat which was very
<em>relaxing</em></p>

<h2>Oahu Hawaii</h2>
<p>In Hawaii we stayed on the Island of Oahu</p>
While in Oahu we visited the following places<br />
<ul>
    <li><strong>Honolulu</strong>, Capital of Hawaii</li>
    <li>Pearl Harbour</li>
    <li> "USS Arizona" Monument</li>
    <li><p>
        <img src = "arizonamonumentsmall.png"
            alt = "USS Arizona monument" />
    </p></li>
    <li>Waikiki Beach</li>
    <li>Diamond Head</li>
    <li>Sunset Beach</li>
    <li>Waimea Bay</li>
</ul>

<h6>copyright : GS. October 2014</h6>
</body>
</html>
```

Question 25 continues on page 15

Question 25 (continued)

Draw the webpage as it would appear in a browser based on the given code. You may use text to describe features you cannot draw. 6

Browser Tab / Title

My Holiday IX

My Holidays^{H1}

Bold, Italics

we went to Hawaii by plane, then cruised to 4 Tahitian Islands on a boat

We came back to Sydney on the cruise boat which was very relaxing^{Italics}

Oahu Hawaii^{H2}

in Hawaii we stayed on the island Oahu

while in Oahu we visited the following places

Break Bold

- Honolulu, capital of Hawaii
- Pearl Harbour
- "USS Arizona Monument"
- IMG if it doesn't load "USS Arizona Monument" will be displayed

* yellow background
* Arial font

- Waikiki Beach
- Diamond Beach
- Sunset Beach
- Waimanalo Beach

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End of Question 25