**Answers**

1. DesignZone is a graphical design company specialising in advertising for computer games and apps. It is run by Stephen and he has ten employees for design and three for administration. IT Support for the computers is run by an external company.  
     
   Recently, many of the computers have started to run slowly. The IT support company have suggested that defragmentation and disk clean-up should first be carried out to see if they resolve the problem.

(a) State the group of software that defragmentation and disk clean-up belong to. [1]

Utility programs/software (1).

The company wish to upload a number of documents for customers to download   
from their website. Stephen has asked the admin team to use compression tools   
on the files before they are uploaded.

(b) Explain **one** reason why Stephen has asked for compression tools to be used. [2]

The file size will be reduced (1) meaning they are faster for customers to download   
(1) All the files will be contained in one zip file (1) which will reduce the number of downloads that customers need to select (1).

(c) The company currently uses a proprietary office suite. They are considering changing to an open source one.  
  
Discuss the benefits and drawbacks of moving to an open source office suite. [6]  
  
Benefits

* The software will be free
* Employees can use the same software at home
* The software could be modified to change what it does
* The company won’t have to pay for upgrades

Drawbacks

* The files used may not be compatible with their old office suite and not load, or not load correctly
* The software will not have support, or support will be from a different company and need to be paid for
* Features of the old software may be missing
* Staff will need to be trained in the new software and may (at least initially) be less productive

| **Level** | **Mark** | **Descriptor** |
| --- | --- | --- |
| Level 0 | 0 | No rewardable material. |
| Level 1 | 1-2 | Technical vocabulary is used but it is not used appropriately to support arguments, in relation to the issues of the question.  Issues are identified but chains of reasoning are not made, leading to a superficial understanding. |
| Level 2 | 3-4 | Accurate technical vocabulary is used to support arguments but not all arguments are relevant to the issues of the question.  There is consideration of relevant issues using logical chains of reasoning.  Considers the various elements of the question. |
| Level 3 | 5-6 | Fluent and accurate technical vocabulary is used to support arguments that are relevant to the issues of the question.  There is a balanced and wide-ranging consideration of relevant issues, using coherent and logical chains of reasoning that shows a full awareness.  Carefully considers the various elements of the question. |

2. The designers are researching new graphic design software.

(a) Describe the purpose of graphic design software. [2]

To create / edit / manipulate visual images (1) such as photographs / sketches / animation (1) so that it can be put on a website / printed (1).

(b) Explain **two** features that the designers would expect this software to have? [4]

Crop an image (1) so that only a key part of a photo is saved (1). Resize an image   
(1) so that it saves as a smaller file size (1).

Use a magic wand tool (1) so that an area can be isolated / background can be   
cut out (1).Use a healing tool (1) to repair parts of an image / remove scratches (1).

Use layers (1) so that an image can be built up from components (1). Or any other reasonable feature

(c) The company wishes to put a video on their website to advertise themselves.  
State a suitable video format. [1]

MPEG (mpg) / MP4 / AVI / MOV or another suitable format. (1)

(d) When the company creates images for printing magazines, they use PNG or JPG images with a resolution of at least 300 dots per inch (dpi). Explain **two** reasons why they specify the given file formats and resolution. [4]  
  
Reason 1: \_\_\_  
  
Reason 2: \_\_\_  
  
If they use a low resolution image (1) then it will appear pixelated/blocky in the publication (1).

PNG/JPG images are compressed (1) so they will take up less storage space (1)  
PNG images allow for transparency (1) so they can be used to blend with other images behind them (1).

PNG/JPG images are common file formats (1) so the software that they / the printers uses will not have any compatibility issues (1).

[Total 20 marks]