

|   |                                                                                                                                             |
|---|---------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | <b>One</b> mark for each correct device: <ul style="list-style-type: none"> <li>• Actuator</li> <li>• Printer</li> <li>• Speaker</li> </ul> |
|---|---------------------------------------------------------------------------------------------------------------------------------------------|

|      |        |
|------|--------|
| 1(a) | 8      |
| 1(b) | 2048   |
| 1(c) | nibble |

|      |                                                           |
|------|-----------------------------------------------------------|
| 2(a) | 16 bits used to represent <b>each</b> colour in the image |
| 2(b) | The file size will decrease                               |

|          |                                                                                                                                                                                                                                                                           |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1(a)     | D                                                                                                                                                                                                                                                                         |
| 1(b)     | 2048                                                                                                                                                                                                                                                                      |
| 1(c)(i)  | (Data) Compression                                                                                                                                                                                                                                                        |
| 1(c)(ii) | Any <b>one</b> from: <ul style="list-style-type: none"> <li>• Less bandwidth required to transmit the file</li> <li>• Less <b>storage</b> space needed to store the file</li> <li>• To meet email file size <b>limit</b></li> <li>• To use less data allowance</li> </ul> |

| 3                                | <b>One</b> mark for each correct term or definition. <table border="1"> <thead> <tr> <th>Term</th><th>Definition</th></tr> </thead> <tbody> <tr> <td><b>pixel</b></td><td>It is the smallest component of an image.</td></tr> <tr> <td>resolution</td><td><b>The number of pixels high by the number of pixels wide // The number of pixels in an image</b></td></tr> <tr> <td><b>colour depth // bit depth</b></td><td>This is the number of bits that are used to create each colour in an image.</td></tr> <tr> <td><b>metadata // header</b></td><td>This is additional data that is stored with an image that can provide information such as the time and date the image was taken.</td></tr> </tbody> </table> | Term | Definition | <b>pixel</b> | It is the smallest component of an image. | resolution | <b>The number of pixels high by the number of pixels wide // The number of pixels in an image</b> | <b>colour depth // bit depth</b> | This is the number of bits that are used to create each colour in an image. | <b>metadata // header</b> | This is additional data that is stored with an image that can provide information such as the time and date the image was taken. |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------|--------------|-------------------------------------------|------------|---------------------------------------------------------------------------------------------------|----------------------------------|-----------------------------------------------------------------------------|---------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| Term                             | Definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |      |            |              |                                           |            |                                                                                                   |                                  |                                                                             |                           |                                                                                                                                  |
| <b>pixel</b>                     | It is the smallest component of an image.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |      |            |              |                                           |            |                                                                                                   |                                  |                                                                             |                           |                                                                                                                                  |
| resolution                       | <b>The number of pixels high by the number of pixels wide // The number of pixels in an image</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |      |            |              |                                           |            |                                                                                                   |                                  |                                                                             |                           |                                                                                                                                  |
| <b>colour depth // bit depth</b> | This is the number of bits that are used to create each colour in an image.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |      |            |              |                                           |            |                                                                                                   |                                  |                                                                             |                           |                                                                                                                                  |
| <b>metadata // header</b>        | This is additional data that is stored with an image that can provide information such as the time and date the image was taken.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |            |              |                                           |            |                                                                                                   |                                  |                                                                             |                           |                                                                                                                                  |

|      |                |
|------|----------------|
| 2(a) | <b>C</b>       |
| 2(b) | 14<br>20<br>A5 |