

## 6-A-Day – Computer Science GCSE (15)

|    |  |     |
|----|--|-----|
| Q1 | <ul style="list-style-type: none"><li>• Constant: Pi</li><li>• Variables: WheelSize, Circumference</li></ul>   | [2] |
| Q2 | <ul style="list-style-type: none"><li>• The value of a constant is set when the constant is declared</li><li>• The value of a variable is set while the program is running</li><li>• The value of a constant cannot be changed once the program is running/can only be set at design time</li><li>• A variable has no value at design time</li></ul> | [2] |
| Q3 | 0110 1010<br>(1 mark per nibble)   | [2] |

| Q4  | 3D<br>(1 mark per digit)   | <b>[2]</b> |             |  |     |  |     |   |      |   |     |   |     |            |
|---|--|------------|-------------|--|-----|--|-----|---|------|---|-----|---|-----|------------|
| <div style="border: 1px solid black; padding: 5px; display: inline-block;">Award 1 mark if candidate makes a sensible attempt to convert to denary and then hex but makes an arithmetic error in the process.</div> |  |            |             |  |     |  |     |   |      |   |     |   |     |            |
| Q5  | <table border="1" data-bbox="272 577 1193 1167"><thead><tr><th data-bbox="272 577 943 629">File</th><th data-bbox="943 577 1193 629">File Format</th></tr></thead><tbody><tr><td data-bbox="272 629 943 719">A high resolution image of the band to use as your desktop background.</td><td data-bbox="943 629 1193 719">JPG</td></tr><tr><td data-bbox="272 719 943 853">Sheet music of their songs ready to be printed in the correct format for guitar players.</td><td data-bbox="943 719 1193 853">PDF</td></tr><tr><td data-bbox="272 853 943 943">A short video extract from their latest concert tour.</td><td data-bbox="943 853 1193 943">MPEG</td></tr><tr><td data-bbox="272 943 943 1077">A compressed collection of 200 plain text files containing the lyrics of all their songs.</td><td data-bbox="943 943 1193 1077">ZIP</td></tr><tr><td data-bbox="272 1077 943 1167">An audio recording of a song from their future album.</td><td data-bbox="943 1077 1193 1167">MP3</td></tr></tbody></table> <p data-bbox="272 1211 560 1256">(1 mark per row)</p> | File       | File Format | A high resolution image of the band to use as your desktop background. | JPG | Sheet music of their songs ready to be printed in the correct format for guitar players. | PDF | A short video extract from their latest concert tour. | MPEG | A compressed collection of 200 plain text files containing the lyrics of all their songs. | ZIP | An audio recording of a song from their future album. | MP3 | <b>[5]</b> |
| File  | File Format  |            |             |  |     |  |     |   |      |   |     |   |     |            |
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| Q6  | <ul data-bbox="252 1379 1294 1861" style="list-style-type: none"><li>• A Database Management System/Used to manage the database</li><li>• May use SQL/allows database to be queried</li><li>• Provides facilities for creating tables/inserting data/viewing data/reporting</li><li>• Allows data structure to be independent of the program</li><li>• Allows relationships to be created between tables/Maintains integrity</li><li>• Provides security features/levels of access</li></ul>   | <b>[3]</b> |             |  |     |  |     |   |      |   |     |   |     |            |
| <div style="border: 1px solid black; padding: 5px; display: inline-block;">Accept other relevant points.</div>  |  |            |             |  |     |  |     |   |      |   |     |   |     |            |