# 6-A-Day – Computer Science GCSE (17)

| | |
|---|---|
| Q1 | ```
Example:
    BEGIN
        Input RealAge
        IF RealAge <= 2
            DogYears = RealAge * 12
        ELSE
            ExtraYears = RealAge – 2
            DogYears = 24 + ExtraYears * 6
        END IF
    END
```

Award marks for an algorithm which:
- Allows real age to be input
- If age <=2, multiply real age by 12

If age >2
- Works out extra years (real age – 2) …
- … multiply by 6
- … adds 24 (for the first 2 years)

[5] |
| Q2 | • A 1-page text document: **Kilobyte(s)**
• A 10-min movie clip: **Megabyte(s)**
• A person's surname: **Byte(s)**

3

Allow abbreviations |
| Q3 | |

| | TRUE | FALSE |
|---|---|---|
| The internet is the same as the World-Wide Web | | ✓ |
| The internet is a Local Area Network | | ✓ |
| The internet is a network between many networks | ✓ | |

3

One mark per correct row

| Q4 | High Level Response (5/6): A good understanding with detailed descriptions of the measures and policies, explaining how they help privacy and security; The information will be presented in a structured and coherent form. There will be few, if any, errors in spelling, grammar and punctuation. Technical terms will be used appropriately and correctly.

Medium Level Response (3/4); some appropriate measures and policies with weak descriptions; The information will be presented in a structured format. There may be occasional errors in spelling, grammar and punctuation. Technical terms will be mainly correct.

Low level response (0/2): There may be some measures and policies mentioned but descriptions are incomplete or may contain inaccuracies; Information will be poorly expressed and there will be a limited, if any, use of technical terms. Errors of grammar, punctuation and spelling may be intrusive.

Points may include:
- Physical security measures – computers/servers in locked rooms, lock down cables for laptops
- Firewalls – allow only authorised access to the network / only authorised users/programs to share data out of the network
- User groups/access levels – different users are given rights to different data according their responsibility/need to protect privacy
- Passwords enforced. Should be strong and changed regularly. Ensures privacy and protects files being accessed by malicious hackers
- Encryption of data on network
- WiFi access security if they use WiFi
- Get employees to sign an acceptable use policy as part of their contract to ensure they do not put the data at risk of corruption/abide by data protection legislation/do not give the data to third parties etc.  [6] |
|---|---|

| Q5 | | | 5 |
|---|---|---|---|

|  | Must be included | Need not be included |
|---|---|---|
| The names of the people in the picture | | ✓ |
| The width of the picture in pixels | ✓ | |
| The number of bits used for each pixel | ✓ | |
| The number of people in the picture | | ✓ |
| The colour of each pixel | ✓ | |

1 mark per correct row

| Q6 | - The concentration of pixels | 1 |
|---|---|---|

Not just the number of pixels or picture quality