

Human/Computer Interface

Total: 20

1. Most personal computers make use of a Graphical User Interface (GUI).

State **four** features of a GUI, giving a benefit of using each feature. (8 marks)

Windows/dialogue boxes (1) plus benefit (1)

Icons (1) plus benefit (1)

Menus (1) plus benefit (1)

Pointers/mice (1) plus benefit (1)

Help (1) plus benefit (1)

Drag and drop (1) plus benefit (1)

Popups (1) plus benefit (1)

Toolbars (1) plus benefit (1)

Desktop (1) plus benefit (1)

NOT WIMP by itself **Any 4 x (2, 1, 0)**

2. (a) Most mobile phones make use of a menu driven interface. Give **two** benefits of a menu driven interface for mobile phone users. (2 marks)

(b) State **two** other types of user interface and give a suitable example of use for each one. (4 marks)

(a) Mistakes reduced as only correct choices displayed

Can select with single key stroke

Hierarchical menu structure aids navigation

Little or no training required as intuitive to use / once one menu driven interface is understood then others are very similar to use (**Max 2**)

(b) GUI (1) example e.g. QBE, Internet browser, operating system (1)

Command driven (1) example e.g. operating system (1)

Natural Language (1) example e.g. search engine (1)

Form based interface (1) example e.g. online shopping (1) **Any 2 x (2, 1, 0)**

3. Describe the characteristics of a natural language interface. Illustrate your answer with **two** different examples of use of this type of interface. (4 marks)

Special commands do not need to be remembered

Words used from normal vocabulary

To identify information required

A user can just type in a question/instruction

Problems with vague/ambiguous/complex statements

Example 1 e.g. search engine/can Google*, context sensitive help, AI, expert systems etc allow specific example e.g. medical diagnosis. * ALLOW use of the verb to Google.

Example 2 must be different to Example 1 **Max 4**

4. State 2 things a designer should avoid when working on a new interface. (2).

- Not providing a Help option for novice users
- No short-cuts for experienced users
- No metaphors or images (e.g. a picture of a printer on a print button)
- Use of items not consistent with usual behaviour, which makes use of long-term memory e.g. always using F1 for Help or ESC to stop a process. There are certain functions that have become de facto standards.

- Unclear and unhelpful error messages.
- Cluttered screens with little use of effective colour.