Answers

Task 1

Type “Ease of Access” in the search bar in Windows to see what operating system accessibility options are available.

List accessibility features which are available for:

a) Blind or visually impaired computer users

Blind computer users can use speech synthesis to describe what is on the screen and read menus and text.

Visually impaired computer users can optimise visual display settings such as magnifying text, changing colours or contrast, disabling animations or transparency, changing cursor and pointer size, applying colour filters.

b) Deaf or hearing-impaired computer users

Hearing impaired computer users can adjust /increase the volume of their devices.

Deaf people can have closed captions appear instead of sound.

c) Computer users with limited mobility

Users with limited mobility can dictate / use speech instead of typing and to control the computer. They can also make use of sticky keys, toggle keys (plays a sound when you press Caps Lock, Num Lock or Scroll Lock) and filter keys (ignores repeated keystrokes).

The keyboard can be used to control the mouse if that is easier.

Other input devices such as eye tracking can be used.

Task 2

Look up <https://edu.gcfglobal.org/en/computerbasics/using-accessibility-features/1/>

Describe **three** assistive technology devices which can be used to make input and output more accessible to users with disabilities.

Screen magnifiers can be placed over the computer display or the operating system magnifier/zoom features can be used.

Alternative keyboards with larger keys which are easier to see or press. Keyboards with alternative key layouts for people who can only type with one hand or only some fingers.

Switch-adapted peripherals to allow people with limited mobility to control technology with very small motions such as puff of breath or a head movement. Switch adapted mice and keyboards for users who cannot use their hands.

Task 3

Look up the webpage <https://www.gov.uk/government/publications/understanding-disabilities-and-impairments-user-profiles>

The website gives profiles which show common barriers that people face with digital services and tips for improving these services.

The profiles are as follows:

**Ashleigh**: partially sighted screen reader user

Christopher: user with rheumatoid arthritis

**Claudia:** partially sighted screen magnifier user

**Pawel:** user with Asperger’s

**Ron:** older user with multiple conditions

**Saleem:** profoundly deaf user

**Simone:** dyslexic user

a) Choose two profiles from the list above

Profile one: (one of the options from the list above)

Profile two: (one of the options from the list above)

b) For each profile, explain one barrier that the user faces when using digital services

Profile one barrier: (see website profiles for answers)

Profile two barrier: (see website profiles for answers)

c) For each profile, explain one way in which services could be designed or used to overcome the barriers you mentioned in part b.

Profile one method of overcoming barrier: (see website profiles for answers)

Profile two method of overcoming barrier: (see website profiles for answers)

Task 4

a) Name one Act of Parliament which ensures that people are treated equally in the workplace with regard to IT systems.

Equality Act 2010 (This replaced the Disability Discrimination Act 1995 / 2005)

b) Legislation is designed to ensure the accessibility of IT systems to disabled employees and job applicants.

 Discuss two ways in which a business could adapt to ensure it doesn’t discriminate.

The following answers are illustrative of possible answers that could be given.

This Act requires employers to make reasonable changes to the workplace to accommodate a disabled person, such as installing a wheelchair ramp or providing specialised devices for input and output.

 It also obliges website owners to make a site accessible to disabled users and make reasonable adjustments to resolve any access issues.

Task 5

Extreme Tech Apps is a software development company which makes productivity apps for mobile phones.

Their product manager wishes to launch a new application for monitoring the time that employees spend working on each task.

As part of the list of requirements they have included the following:

1. *The application interface (buttons, sliders and other controls) should use in-house graphics. The interface on the home screen and other screens should have a different look and feel.*
2. *The platform is not required to support features such as screen readers and voice input.*

a) Explain **two** reasons why these requirements are contrary to the Open Accessibility Framework (OAF).

The OAF expects standard user interface components to be used for consistent look and function. Point 1 in the requirements goes against this and would make the app confusing for accessibility.

 Point 2 violates the OAF specification that platforms and applications should support accessible features.

b) A developer feels that they probably can’t legally carry out the requirements given by the project manager. Explain why this is the case.

The requirements go against the OAF requirements in a manner that will make the app developed inaccessible to some users with disabilities. By doing this, the company would likely be breaking the expectations of the Equality Act / (Disability Discrimination Acts). Therefore, it would be illegal to develop these requirements.