**APPLIED INFORMATION TECHNOLOGY**

**ATAR course examination 2020**

**Marking Key**

**Section One: Multiple-choice 15% (15 Marks)**

|  |  |
| --- | --- |
| **Question** | **Answer** |
| 1 | c |
| 2 | a |
| 3 | b |
| 4 | a |
| 5 | c |
| 6 | a |
| 7 | d |
| 8 | d |
| 9 | b |
| 10 | c |
| 11 | a |
| 12 | c |
| 13 | d |
| 14 | c |
| 15 | d |

**End of Section One**

Section Two: Short answer 25% (70 Marks)

This section has **eight (8)** questions. Answer **all** questions. Write your answers in the spaces provided.

Additional working space pages at the end of this Question/Answer booklet are for planning or continuing an answer. If you use these pages, indicate at the original answer, the page number it is planned/continued on and write the question number being planned/continued on the additional working space page.

Suggested working time: 40 minutes.

**Question 16 (15 marks)**

The coronavirus pandemic has moved life online with many organisations forced to shift from traditional office spaces to virtual collaboration to run their businesses.

(a) Describe **two** advantages of virtual collaboration. (4 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| For each: |  |
| Describes the advantage of virtual collaboration | 2 |
| Identifies the advantage of virtual collaboration | 1 |
| **Total** | 4 |
| Answers could include:   * Efficient pooling of expertise – teams can be formed based on subject and expertise without restrictions of physical proximity of collaborators. * Time effective – can be conducted anytime anywhere without need for travel time | |
| Accept other relevant answers. | |

(b) Describe **two** disadvantages of virtual collaboration. (4 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| For each: |  |
| Describes the disadvantage of virtual collaboration | 2 |
| Identifies the disadvantage of virtual collaboration | 1 |
| **Total** | 4 |
| Answers could include:   * May need to acquire and install different software packages – extra cost for businesses * Reliance on technology – any problems for example malfunctions in technology, incompatible technology used between team members, can hinder progress of meeting * Loss of interpersonal contact - Many members of virtual teams are adversely affected by the lack of physical interactions. Most of the communications in virtual environment is task-oriented. In today’s society where job is an important social force for most of us because many of our workplace colleagues also constitute our close friends, this gives a not-so-good feeling of social isolation. This in turn counter-effects productivity as well as leads to stress. | |
| Accept other relevant answers. | |

(c) Explain how virtual collaboration is being used in education. (3 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Explains how virtual collaboration is being used in education | 3 |
| Makes general comments about how virtual collaboration is being used in education | 2 |
| Makes superficial comments about how virtual collaboration is being used in education | 1 |
| **Total** | **3** |
| Answers could include:  • A similar experience of face to face teaching can be achieved through students and teachers/lecturers at sharing/discussing information online. Teachers can host live video lessons and share content and students can watch and participate and interact with the teacher/lecturer and other students. Students can also upload assignments. Accept other relevant answers. | |
| Accept other relevant answers. | |

(d) Describe **two** implications of virtual collaboration in education. (4 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| For each implication: |  |
| Describes the implication of virtual collaboration | 2 |
| Identifies the implication of virtual collaboration | 1 |
| **Total** | 4 |
| Answers could include:   * If students have no access to technology like computers, they will miss out on classes and learning and fall behind their peers. * If students have no access to technology like computers, schools will have to provide an alternatives which could cost money and time. * In remote areas where the internet may be unavailable or of poor quality, students will not have the same learning experience as their peers and this may affect their learning   . | |
| Accept other relevant answers. | |

**Question 17 (6 marks)**

Explain how HTML and CSS work together in web design. In your answer, expand the acronym for HTML and CSS.

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Expand each acronym | 1- 2 |
| Subtotal | 2 |
|  |  |
| Explain how HTML and CSS work together in web design. | 4 |
| Identifies some aspects of incorporating the UX and UI in the design of a website. | 3 |
| Makes general comments about how virtual collaboration is being used in education | 2 |
| Makes superficial comments about how virtual collaboration is being used in education | 1 |
| Subtotal | 4 |
| **Total** | **6** |
| Answers could include:  HTML (Hypertext Markup Language) and CSS (Cascading Style Sheet) are two different types of markup (code), which have their own unique syntax.  HTML is used to describe the structure for the page or content for the page and CSS is used to specify the style of the page including the design, layout and variations in display for different devices and screen sizes. Accept other relevant answers.  . | |
| Accept other relevant answers. | |

**Question 18 (15 marks)**

(a) What is a Local Area Network? (2 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Describes what a Local Area Network is | 2 |
| Makes general comments about the relationship between the principal and element of design | 1 |
| **Total** | 2 |
| Answers could include:  A local area network (LAN) is a [computer network](https://en.wikipedia.org/wiki/Computer_network) that interconnects computers and devices within a limited area such as a residence, school, laboratory, university campus or office building. | |
| Accept other relevant answers. | |

(b) Draw a simple Local Area Network (LAN) for an office with **wireless connection** to the internet using the components listed below. Label all components and devices in your diagram. (8 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Draws a simple Local Area Network (LAN) for an office | 1- 8 |
| Total | 8 |
| Accept any relevant LAN diagram. Diagram should show office server, 2 workstations,1 laptop, printer all connected to switch; switch to router; router to modem; modem to cloud.  . | |
| Accept any relevant LAN diagram | |

(c) Outline the purpose of each of the LAN components below: (5 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| For each component: |  |
| Outline the purpose of each component | 1 |
| **Total** | 5 |
| Answers could include:  Server: A computer or device on a network that manages network resources.  Router: Connects two or more networks together either through wireless or wired.  NIC: A network interface card provides the computer with a dedicated, full-time connection to a network.  Switch: Connects segments of a LAN  Modem: Modulates and demodulates analogue carrier signals for encoding and decoding digital information for processing. | |
| Accept other relevant answers. | |

**Question 19 (12 marks)**

Service Level Agreements are a critical component of any outsourcing contracts.

(a) Describe what a Service Level Agreement is. (2 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Describes what a Service Level Agreement is | 2 |
| Makes general comments about what a Service Level Agreement is | 1 |
| **Total** | 2 |
| Answers could include: A service-level agreement (SLA) defines the level of service you expect from a vendor, laying out the metrics by which service is measured, as well as remedies or penalties should agreed-on service levels not be achieved. It is a critical component of any technology vendor contract. | |
| Accept other relevant answers. | |

(b) Describe **two** features that a company needs to include in service level agreements in relation to the outsourcing IT services. (4 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| For each feature: |  |
| Describes what a company needs to include in service level agreements | 2 |
| Makes general comments about what a company needs to include in service level agreements | 1 |
| **Total** | 4 |
| Answers could include:  Availability of services eg 24/7 or working hours;  Type of services – technical support eg help desk or online support tools | |
| Accept other relevant answers. | |

(c) Describe **three** benefits to a company of outsourcing IT services. (6 marks)

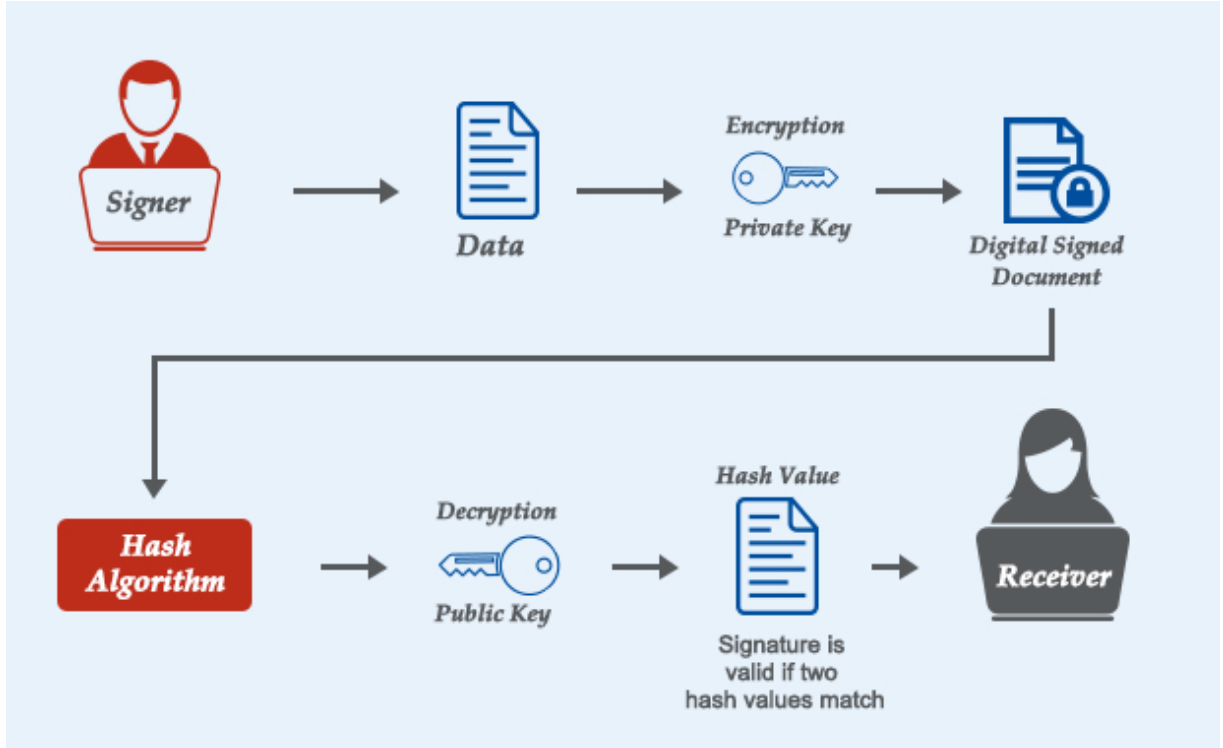
|  |  |
| --- | --- |
| **Description** | **Marks** |
| For each of the three benefits: |  |
| Describes the benefit to a company of outsourcing its IT services | 2 |
| Makes general comment/s about a company in relation to outsourcing its IT services | 1 |
| **Total** | 6 |
| Answers could include:  Enables a company to:  • achieve lower operational and labour costs as third parties or external agencies’ costs are cheaper  • focus on core business processes while delegating the IT services to external agencies  • Outsourcing company will have the expertise and specialist skills and capabilities to provide a more efficient service. | |
| Accept other relevant answers. | |

**Question 20 (6 marks)**

1. Describe **three** key differences between HTTP and HTTPS as communication protocols.

|  |  |
| --- | --- |
| **Description** | **Marks** |
| For each of the three key differences: |  |
| Describes the difference between HTTP and HTTPS as communication protocols | 2 |
| Identifies a point of difference between HTTP and HTTPS as communication protocols | 1 |
| **Total** | 6 |
| Answers could include:  • HTTP (Hyper Text Transfer Protocol), does the same thing as HTTPS (Hyper Text Transfer Protocol over Secure Socket Layer) like transferring information such as document, file, image, video between computers over internet, but it is not in an encrypted format  • both protocols are designed to transfer information between computers over WWW (World Wide Web). The main difference comes into play when ‘S’ is attached with the HTTP  • HTTPS encrypts an HTTP message prior to transmission and decrypts a message upon arrival  • HTTPS can prevent intruders/hackers from installing malware  • HTTPS can protect from intruders inserting their own advertisements into your resources. For example, some third parties inject advertisements into websites that potentially break user experiences and create security vulnerabilities • HTTPS can provide data integrity for both the websites and users’ personal information | |
| Accept other relevant answers. | |

.**Question 21 (6 marks)**



*https://comodosslstore.com/what-is-digital-signature.html*

The diagram above shows how a digital signature works.

(a) Use the diagram above to explain how a digital signature works. (4 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Explains how a digital signature works. | 4 |
| Identifies some aspects of how a digital signature works | 3 |
| Makes general comments about how a digital signature works | 2 |
| Makes superficial comments about how a digital signature works | 1 |
| **Total** | **4** |
| Answers could include:  Digital signatures are based on Public Key infrastructure. By this mechanism, two keys are generated, a **Public Key** and **Private Key**. The private key is kept by the signer and it should be kept securely. On the other hand, the receiver must have the public key to decrypt the message. | |
| Accept other relevant answers. | |

(b) Describe the purpose of a digital signature. (2 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Describes purpose of a digital signature. | 2 |
| Makes general comments about purpose of a digital signature | 1 |
| **Total** | 2 |
| Answers could include:  A digital signature is used to make sure that the file(s) sent digitally belongs to a designated source and reaches the intended receiver in its original format without any tampering. | |
| Accept other relevant answers. | |

**Question 22 (4 marks)**

Explain how data mining can be used in a supermarket to increase revenue.

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Explains how data mining can be used in a supermarket to increase revenue | 4 |
| Identifies some aspects of how data mining can be used in a supermarket to increase revenue | 3 |
| Makes general comments about how data mining can be used in a supermarket to increase revenue | 2 |
| Makes superficial comments about how data mining can be used in a supermarket to increase revenue | 1 |
| **Total** | **4** |
| Answers could include:   * Supermarkets through their loyalty customer program can understand the shopping habits of their customers in order to better target their marketing and promotions. Customers can have common traits based on what they buy and the supermarkets can identify the relationships between the products that people buy. For example, if someone has bought nappies then they might also require milk formula and consequently the supermarket offers a voucher for the associated product. This in turn will entice them to buy more increasing revenue. * Data mining can be used to analyse the buying patterns in the supermarket and for example they discover that shoppers typically did their weekly grocery shopping on Saturdays. They can now use this discovered information in various ways to increase revenue. | |
| Accept other relevant answers. | |

**Question 23 (6 marks)**

Discuss **two** impacts Web 3.0 has on users of digital technologies.

|  |  |
| --- | --- |
| **Description** | **Marks** |
| For each of the two impacts: |  |
| Discusses the impact Web 3.0 has on users of digital technologies | 3 |
| Identifies some aspects of the impact Web 3.0 has on users of digital technologies | 2 |
| Makes general comment/s about the impact Web 3.0 has on users of digital technologies | 1 |
| **Total** | 6 |
| Answers could include:   * A more personalised browsing experiencewherewebsites can automatically customise themselves to best fit our device, location and any accessibility requirements we may have and web apps have become far more attuned to our usage habits. * Better search. The ability to speak in natural language with a search engine is incredibly powerful. The learning curve becomes almost non-existent, and the benefits extend far beyond the consumer; businesses will increasingly be able to take a more natural approach to the search engine optimisation on their websites, rather than resorting to tricky keyword strategies. * **Richer app experiences.** A mapping service like Google, which is now able to combine the basics of location search with route guidance, hotel recommendations and live traffic updates | |
| Accept other relevant answers. | |

**End of Section Two**

**Section Three: Extended answer 20% (43 Marks)**

This section contains **one (1)** question. Write your answers in the spaces provided.

Additional working space pages at the end of this Question/Answer booklet are for planning or continuing an answer. If you use these pages, indicate at the original answer, the page number it is planned/continued on and write the question number being planned/continued on the additional working space page.

Suggested working time: 50 minutes.

**Question 24 (43 marks)**

(a) Cloud-based IoT applications receive, analyse, and manage data in real-time to help municipalities, enterprises, and citizens make better decisions that improve quality of life. Some of the data collected will include sensitive details about citizens. This in turn raises concerns about privacy and security issues.

Describe **three** sensitive details and how these may be collected. (6 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| For each of the three sensitive details: |  |
| Describes the detail and how it may be collected | 2 |
| Makes general comment/s about the detail and how it may be collected | 1 |
| **Total** | 6 |
| Answers could include:   * location tracking showing movements of citizens; citizens’ smartphone becomes their mobile driver’s license and ID card with digital credentials * Connected cars can communicate with parking meters and hence their registration and credit card details * Drones recording lifestyle patterns of citizens * Electric vehicle (EV) being directed to charging docks hence car registration details and movement details | |
| Accept other relevant answers. | |

(b) Describe **two** privacy concerns with the use of cloud based IoT technologies. (4 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| For each of the two sensitive privacy concerns: |  |
| Describe theprivacy concerns with the use of cloud based IoT technologies. | 2 |
| Makes general comment/s about the privacy concerns with the use of cloud based IoT technologies | 1 |
| **Total** | 4 |
| Answers could include:   * How is the sensitive data stored? Information mishandling of sensitive data making you vulnerable to cybercriminals * The unwarranted access of private information like location tracking and hence your movements are known which is risky and insecure for example paving way for burglars | |
| Accept other relevant answers. | |

(c) Describe **two** security issues that may arise with Smart City networks. (4 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| For each of the two security issues: |  |
| Describe a security issue that may arise with Smart City technologies. | 2 |
| Makes general comment/s about a security issues that may arise with Smart Cities technologies. | 1 |
| **Total** | 4 |
| Answers could include:   * As our cities get more intelligent, they also get more interconnected, with various systems depending on one another, or at least sharing the same system resources. This could make for a larger cyberattack footprint. * Many of the systems in Smart Cities are designed to reach out and touch or help citizens in some way. Having a hacker control that interaction is dangerous. * Level of accessibility; or breach or data theft. | |
| Accept other relevant answers. | |

(d) Describe **three** network security measures that can help prevent these issues. (6 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| For each of the three security measures: |  |
| Describe a network security measure that can help prevent these issues | 2 |
| Makes general comment/s about a security measure that can help prevent these issues | 1 |
| **Total** | 6 |
| Answers could include:   * Strong authentication: is a gateway to confirming a user's identity, creating a foundation for securing information and access and ensuring only the right people get access to it. * Data encryption translates data into another form, or code, so that only people with access to a secret key (formally called a decryption key) or password can read it * ID management solutions like tight level of accessibility need to be integrated into the ecosystem to ensure that data is shared only with authorized parties. * A firewall is a network security device that monitors incoming and outgoing network traffic and permits or blocks data packets based on a set of security rules. | |
| Accept other relevant answers. | |

(e) Describe **three** Internet of Things (IoT) devices that are evident in the infographics. (6 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| For each of the three (IoT) devices: |  |
| Describe a device that is evident in the infographics | 2 |
| Makes general comment/s about a device that is evident in the infographics | 1 |
| **Total** | 6 |
| Answers could include:   * Smart lighting: intelligent and adaptive street light that can also detect free parking spaces and EV charging docks and alert drivers where to find an open spot via a mobile app * Traffic controls/smart roads using sensors to monitor vehicles and pedestrian levels to divert traffic according to conditions * Smart grid: energy consumption monitoring and management | |
| Accept other relevant answers. | |

(f) Explain **three** ways in which wireless technologies are being used to connect and improve infrastructure, efficiency, convenience and quality of life for residents and visitors alike. Support your responses with reference to the article and infographics above. (9 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| For each of the three ways: |  |
| Explains how wireless technology is being used to connect and improve infrastructure, efficiency, convenience and quality of life for residents and visitors alike | 3 |
| Identifies some aspects of how wireless technology is being used to connect and improve infrastructure, efficiency, convenience and quality of life for residents and visitors alike | 2 |
| Makes general comments about how wireless technology is being used to connect and improve infrastructure, efficiency, convenience and quality of life for residents and visitors alike | 1 |
| **Total** | **3** |
| Answers could include:   * Connected traffic lights receive data from sensors and cars adjusting light cadence and timing to respond to real-time traffic, thereby reducing road congestion. * [Connected cars](https://www.thalesgroup.com/en/markets/digital-identity-and-security/iot/industries/automotive/connect-cars) can communicate with parking meters and electric vehicle (EV) charging docks and direct drivers to the nearest available spot. * Smart garbage cans automatically send data to waste management companies and schedule pick-up as needed versus on a pre-planned schedule. * And citizens’ smartphone becomes their mobile driver’s license and ID card with digital credentials, which speeds and simplifies access to the city and local government services. | |
| Accept other relevant answers. | |

(g) Explain why the following **two** essential elements are necessary for thriving smart cities:

**(8 marks)**

|  |  |
| --- | --- |
| **Description** | **Marks** |
| For **each of the two essential elements:** |  |
| Explains why the wireless technology is necessary for thriving smart cities | 4 |
| Identifies some aspects of why wireless technology is necessary for thriving smart cities | 3 |
| Makes general comments about why wireless technology is necessary for thriving smart cities | 2 |
| Makes superficial comments about why wireless technology is necessary for thriving smart cities | 1 |
| **Total** | **8** |
| Answers could include:   * **Pervasive wireless connectivity: is the** fabric of connected cities, and it through using wireless technology and the cloud that essentially an intelligent network of connected objects and machines can transmit data. Hence allowing it to function as a smart city. * Open data: this is a key enabler of sustainable smart cities. All participants in the complex ecosystem **share information and combine it** with contextual data that is analysed in real-time. This is how informed decisions are made in real-time. Without actionable, real-time, and reliable access to data, the smart city can’t thrive. | |
| Accept other relevant answers. | |

**End of Section Three**

**Section Four: Scenario 40% (78 Marks)**

This section contains **one (1)** question. Write your answers in the spaces provided.

Additional working space pages at the end of this Question/Answer booklet are for planning or continuing an answer. If you use these pages, indicate at the original answer, the page number it is planned/continued on and write the question number being planned/continued on the additional working space page.

Suggested working time: 70 minutes.

**Question 25 (78 marks)**

The COVID -19 pandemic has caused a number of issues in the community including people who are struggling to put food on the table for their families. The Charities Organisation has asked you to create **a food sharing website and app** to help with the sharing of food by connecting neighbours with neighbours and businesses with charitable organisations. Everything on the website and app will be available for free. They have decided to call it the **Foodfulness**

People and businesses can add items to the website and app by simply taking a photo of the item, adding a brief description and providing pick-up details which can be on the doorstep or a public location. They will get notified when they have a request and can check the user’s profile and star rating and then choose who to share with. They are encouraged to rate users after the meet. And can also report or block users.

People requesting items can browse what is available near them and arrange a pick-up. Volunteers will also be able to arrange pickup and safely redistribute the surplus food to local communities.

Whether it’s a caterer, restaurant, office, retailer or any other food business, the website and app should provide a sustainable solution to their business to reduce food waste and build food sharing communities.

**Requirement 1: Create the website (homepage)**

Create a website that will include the following:

* About
* Log in
* How to share the food
* How to request the food
* Volunteers
* Link to get the app from the App Store and Google Play
* FAQS
* Search tool
* Videos

1. Explain how you will use the following **three** project planning tools to assist with the development of the digital solution for this project. (9 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| For each of the three project planning tools: |  |
| Explains how using the project planning tool will assist with the development of the digital solution. | 3 |
| Makes general comments about using the project planning tool in the development of the digital solution | 2 |
| Makes superficial comment/s about the project planning tool in relation to the digital solution | 1 |
| **Total** | **9** |
| Answers could include:  Gantt charts to illustrate the schedule in designing the app and the website  Storyboards to represent the draft/layout of the app and the website  Project management software to plan, organise and manage resources in developing the app and the website | |
| Accept other relevant answers. | |

1. Explain how you intend to incorporate the concepts listed below into the appearance of your digital solution. (9 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Structure | |
| Explains how they intend to incorporate structure into the appearance of their digital solution | 3 |
| Makes general comment/s about how they intend to incorporate structure into the appearance of their digital solution | 2 |
| Makes superficial comment/s about structure in relation to the appearance of their digital solution. | 1 |
| **Subtotal** | **3** |
| Usability | |
| Explains how they intend to incorporate usability into the appearance of their digital solution. | 3 |
| Makes general comment/s about how they intend to incorporate usability into the appearance of their digital solution. | 2 |
| Makes superficial comment/s about usability in relation to the appearance of their digital solution. | 1 |
| **Subtotal** | 3 |
| User interface | |
| Explains how they intend to incorporate user interface into the appearance of their digital solution | 3 |
| Makes general comment/s about how they intend to incorporate user interface into the appearance of their digital solution. | 2 |
| Makes superficial comment/s about user interface in relation to the appearance of their digital solution | 1 |
| **Subtotal** | 3 |
| **Total** | 9 |
| Answers could include:   * Structure – simple hierarchical structure, standard navigational links, link to homepage, site mapping to outline the website’s structure and navigation scheme * Usability – settings tab/button which allows users to change preferences to suit their needs, e.g. contrast, time zone, language; Search bar that is easily located and recognised to allow users to locate specific information, categorised content for mobile responsiveness * User interface – uncluttered, clear consistent layout, simple navigation, use typography to create hierarchy and clarity; careful placement of text/items to help increase readability and engagement. | |
| Accept other relevant answers. | |

(c) Describe the purpose of the World Wide Web (W3C) when designing your website homepage. (2 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Describe the purpose of the World Wide Web (W3C) when designing your website homepage. | 2 |
| Makes general comments about purpose of the World Wide Web (W3C) when designing your website homepage. | 1 |
| **Total** | 2 |
| Answers could include:   * Promote consistency in the design code which makes up a web page * Ensure the web is accessible to all users despite differences in culture, education, ability, resources and physical limitations. | |
| Accept other relevant answers. | |

(d) Explain how your digital solutions will comply with the following W3C standards for Web Design and Applications:

(9 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| For each of the three standards: |  |
| Explains how the standard can be applied to the homepage. | 3 |
| Makes general comments about how the standard can be applied to the homepage | 2 |
| Makes superficial comments about how the standard can be applied to the homepage | 1 |
| **Total** |  |
| Answers could include:  Accessibility – create content that is accessible to people with disabilities such as use of transcripts for podcasts or audio files, screen reader that reads aloud  Internationalisation – the design should work across cultures and languages by using language translators/options, unit conversions for distances/costs  Graphics – ensure that the homepage optimises images for different audiences with different needs and expectations; use of SVG and PNG which is supported by most browsers | |
| Accept other relevant answers. | |

(e) Describe **two** features that you could incorporate into your digital solution to facilitate user-generated content. (4 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| For each of the two features: |  |
| Describes the feature that they could incorporate into their digital solution to facilitate user-generated content | 2 |
| Identifies the feature that they could incorporate into their digital solution to facilitate user-generated content. | 1 |
| **Total** | 4 |
| Answers could include:   * tweets – encourage conversation about the app, charging stations * blogs – ask for users to comment on their experiences * instagram – encourage customers to share images of stations, charging * forms – collects data from the user. | |
| Accept other relevant answers. | |

(f) Design the website homepage for Foodfulness in the space provided below.

Your design must include annotations and show the following:

1. Layout and structure of your intended design (5 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Layout and structure of design | |
| Produces an effective drawing/representation of the landing page of the app that includes detailed, supporting annotations. | 5 |
| Produces an appropriate drawing/representation of the landing page of the app that includes some supporting annotations. | 4 |
| Produces a rudimentary drawing/representation of the landing page of the app that includes some relating annotations. | 3 |
| Produces a simplistic drawing of the landing page of the app that includes limited annotations. | 2 |
| Produces a limited drawing of the landing page of the app that has inadequate or no annotations. | 1 |
| **Total** | **5** |

1. Elements and principles of design used and the relationship between them

(6 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| **Three** principles of design and their associated elements used and the relationship between them | |
| Produces a design that indicates clearly the elements and principles of design used, the relationship between them and that includes supporting annotations. | 5-6 |
| Produces a design that features some of the elements and principles of design used, some description of the relationship between them and that includes some relating annotations. | 3-4 |
| Produces a design where some of the elements and principles of design have been used but the relationship between them is unclear and the design has inadequate or no annotations. | 1-2 |
| **Total** | **6** |

1. Organisation of content suitable for the given digital medium (3 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Organisation of content suitable for the given digital medium |  |
| Produces a design that features logical organisation of content for the given digital medium and supporting annotations | 3 |
| Produces a design that shows some organisation of content for the given digital medium and some relating annotations | 2 |
| Produces a design that shows limited organisation of content for the given digital medium and inadequate or no annotations | 1 |
| **Total** | **3** |

1. Navigation control suitable for the given medium (3 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Navigation control suitable for the given medium |  |
| Produces a design that features navigation control suitable for the given medium and supporting annotations | 3 |
| Produces a design that navigation control suitable for the given medium and some relating annotations | 2 |
| Produces a design that shows navigation control suitable for the given medium and inadequate or no annotations | 1 |
| **Total** | **3** |

1. User-generated content feature/s suitable for the given digital medium (3 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| User-generated content feature(s) suitable for the given digital medium |  |
| Produces a design that includes effective user-generated content feature(s) for the given digital medium and supporting annotations | 3 |
| Produces a design that includes effective user-generated content feature(s) for the given digital medium and some relating annotations | 2 |
| Produces a design that shows suitable user-generated content feature(s) for the given digital medium but inadequate or no annotations | 1 |
| **Total** | **3** |

1. One accessibility feature (3 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| One accessibility feature |  |
| Produces a design with an accessibility feature and that includes supporting annotations | 3 |
| Produces a design with an accessibility feature and has some relating annotations | 2 |
| Produces design with an accessibility feature but has inadequate or no annotations | 1 |
| **Total** | **3** |

1. One usability feature (3 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| One usability feature |  |
| Produces a design with an usability feature and that includes supporting annotations | 3 |
| Produces a design with an usability and has some relating annotations | 2 |
| Produces a design with an usability but has inadequate or no annotations | 1 |
| **Total** | **3** |

**Requirement 2: Create an App**

(g) For the App creation, design the following **two** pages:

* **Landing page: Discover free food near you**

Include the following: Listings of food, Distance (how near item is), First name of person listing

Add item, Browse, Profile, more

* **Adding the item you want to share**

Include the following: Photo of item, description, pick up details, message me, time since posting, submit

Add item, Browse, Profile, more

For each of the **two** designs, include annotations and show the following:

1. Layout and structure of your intended design (10 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| For each of the two designs | |
| Layout and structure of design | |
| Produces an effective drawing/representation of the app that includes detailed, supporting annotations. | 5 |
| Produces an appropriate drawing/representation of the app that includes some supporting annotations. | 4 |
| Produces a rudimentary drawing/representation of the app that includes some relating annotations. | 3 |
| Produces a simplistic drawing of the app that includes limited annotations. | 2 |
| Produces a limited drawing of the app that has inadequate or no annotations. | 1 |
| **Total** | **10** |

1. Organisation of content suitable for the given digital medium (6 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| For each of the two designs | |
| Organisation of content suitable for the given digital medium | |
| Produces a design that features logical organisation of content for the given digital medium and supporting annotations | 3 |
| Produces a design that shows some organisation of content for the given digital medium and some relating annotations | 2 |
| Produces a design that shows limited organisation of content for the given digital medium and inadequate or no annotations | 1 |
| **Total** | **6** |

(h) Explain how you will use **one** tool to evaluate the effectiveness of your digital solution in accordance with the design brief. (3 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Explains how the tool will be used to evaluate the effectiveness of their digital solution in accordance with the design brief for this project. | 3 |
| Identifies an aspect of how the tool will be used to evaluate the effectiveness of their digital solution in accordance with the design brief for this project. | 2 |
| Identifies the tool they will use to evaluate the effectiveness of their digital solution in accordance with the design brief for this project. | 1 |
| **Total** | **3** |
| Answers could include:   * a survey of a sample group to get feedback on the digital solution * client feedback – give sample/prototype to client to get initial feedback * self-reflection – reflect on the design of the product to see if improvements could be made. | |
| Accept other relevant answers. | |

**End of questions**