Government of **Western Australia**
School Curriculum and Standards Authority

APPLIED INFORMATION TECHNOLOGY

ATAR course examination 2023

Marking key

Marking keys are an explicit statement about what the examining panel expect of candidates when they respond to particular examination items. They help ensure a consistent interpretation of the criteria that guide the awarding of marks.

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

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

Section Two: Short answer 25% (48 Marks)

Question 16 (4 marks)

Describe **two** differences between a data mart and a data warehouse.

Description	Marks
For each difference (2 x 2 marks)	
Describes a difference between a data mart and a data warehouse	2
Makes a general comment about a difference between a data mart and a data warehouse	1
Total	**4**
Answers could include:	

Answers could include:

- a data mart is a subset of a data warehouse, whereas a data warehouse is a centralised repository for all data of an organisation
- a data mart serves a specific department, business unit or line of business, whereas a data warehouse is designed to meet the needs of the entire organisation
- a data mart contains only relevant data for a specific group of users, while a data warehouse contains integrated data from multiple sources and departments.

Accept other relevant answers.

Question 17 (6 marks)

Explain **two** usability features a web designer may include in a graphical user interface (GUI) of an application (app) for a clothing store.

Description	Marks
For each feature (2 x 3 marks)	
Explains the usability feature for the clothing store application (app)	3
Describes the usability feature for the clothing store application (app)	2
Makes a general comment about a usability feature for the clothing store application (app)	1
Total	**6**

Answers could include:

- shopping cart: allows users to easily add items to their cart and view the contents of their cart as they shop, making it more convenient for them to purchase multiple items at once
- product zoom: allows users to see a close-up image of a clothing item, making it easier to view the details and fabric of the item
- membership/account management: allows users to create an account, log in, and access saved information, such as their order history, shipping information, and wish list. This feature can also provide personalised recommendations and promotions to customers based on their purchase history
- customisable interface: allows users to customise the interface, such as change the background colour, text size and font. This feature can help improve the accessibility of the app for users with visual impairments and make the app more personalised and user-friendly. Additionally, this feature can also allow the user to tailor the interface to their preferences, making the shopping experience more enjoyable and efficient
- search features: allows users to search for clothing items based on keywords, categories, and other criteria. Advanced search options could also be included, such as the ability to search by product attributes, such as colour, size, and material. This feature makes it easier for users to find the items they are looking for, especially when browsing through a large inventory of clothing items
- product filtering: allows users to sort and display clothing items by various criteria, such as colour, size, price, and style.

Accept other relevant answers.

Question 18 **(6 marks)**

A small business is seeking to establish a powerful online presence through its website. Explain **two** features of a content management system (CMS) that will enable this.

Description	Marks
For each feature (2 x 3 marks)	
Explains a feature of a CMS that will enable a small business to establish a powerful online presence through its website	3
Describes a feature of a CMS that will enable a small business to establish a powerful online presence through its website	2
Makes a general comment about a feature of a CMS	1
Total	**6**
Answers could include: • no technical expertise needed: provides a user-friendly interface that enables users to create and publish content without needing technical expertise or knowledge of web development. For a small business this is cost effective as they don't need to pay for expensive web developer services and it also enables them to focus on other parts of the business • scalability: designed to scale with the needs of small businesses. This will allow small businesses to handle increasing amounts of content and traffic without having to revamp/redesign the whole system, thus saving money and time • customisation and flexibility: provides a range of templates and themes to allow customisation and also allows new functionalities and features to be added when needed, seamlessly allowing small businesses to enhance their websites without any extra costs • centralised content management: provides a centralised database for storing and managing digital content, which makes it easier for a small business to keep their websites up-to-date and to ensure consistency.	
Accept other relevant answers.	

Question 19 **(9 marks)**

Explain **three** ways in which you might apply the user interface (UI) elements to enhance the overall user experience (UX).

Description	Marks
For each way (3 x 3 marks)	
Explains a way the user interface (UI) elements enhance the overall user experience (UX)	3
Describes a way the user interface (UI) elements enhance the overall user experience (UX)	2
Makes a general comment about user interface (UI) elements and/or user experience (UX)	1
Total	9

Answers could include:

- accessibility features: these elements could include a screen reader, to provide an audible account of the website, a resizable font option, which will allow the user to change the font size to suit their needs, and alternate text for images, to assist visually impaired users. These will all ensure users, especially those with impairments, have a positive experience
- usability features: such as a search bar and breadcrumbs. A search bar will allow a user to search for particular words, which will enhance user experience as they will be able to engage with easy and effective navigational elements to help them look for specific sports brands, for example. Breadcrumbs will allow users a secondary form of navigation where they can revisit past pages creating a positive user experience through usable web functions
- hierarchical organisation: having a well laid out, easy to follow and uncluttered look, with hierarchical organisation of content. This will ensure a positive UX on the site, as information will be organised by importance and the layout design will be easy to use and navigate. For example, particular brands might be highlighted at the top of the site. If this navigation is efficient, users will be satisfied and more likely to return to the site and recommend it to others
- the UI should be accessible to everyone, including people with disabilities, for example for colour blindness there should be an option to change colours
- user centred design: the UI should be designed keeping in mind the user's needs and preferences to allow them a seamless and positive experience, for example incorporating suitable drop down menus and/or account login options
- flexibility and adaptability: the UI should be designed to accommodate different devices, screen sizes and orientations, for example responsive design and/or cross-compatibility
- branding and visual design: the UI should reflect brand identity and values. Visual design elements should be consistent with the brand and convey a cohesive message. A well-designed UI can enhance the brand's image and create a memorable user experience
- performance and speed: the UI should be designed with these in mind as slow loading times or delays in response can frustrate users and negatively impact their experience.

Accept other relevant answers.

Question 20 (4 marks)

Online forms use a variety of techniques to validate the data entered by a user. Describe **two** validation techniques that a developer could use to ensure that the data entered is correct.

Description	Marks
For each validation technique (2 x 2 marks)	
Describes a validation technique that a developer could use to ensure that the data entered is correct	2
Makes a general comment on a technique that a developer could use to ensure that the data entered is correct	1
Total	**4**
Answers could include: • required field validation: checks if a required field is left empty and prompts the user to enter a value • format validation: checks if the data entered matches a specific format, such as email, phone number, date, etc. • range validation: checks if the entered value falls within a specified range of values, such as a number between 1 and 10 • length validation: checks if the entered value meets a minimum or maximum length requirement • type validation: checks if the entered value is of the correct data type, such as a string, number, etc. • custom validation: allows developers to define their own validation rules to fit the specific needs of the form • client-side validation: this technique uses JavaScript or similar client-side scripting languages to check the data entered by the user before it is submitted to the server. It can quickly address required fields being left blank, incorrect format of email or phone number, etc. • server-side validation: this technique involves validating the data on the server after it has been submitted by the user. This provides a more secure validation method as it can't be bypassed by disabling JavaScript or manipulating the data sent to the server. It can check for more complex rules like checking if the entered email already exists in the database, checking if the entered password meets the minimum requirements, etc.	
Accept other relevant answers.	

Question 21 **(7 marks)**

(a) Explain a difference between performing backups and archiving data. (3 marks)

Description	Marks
Explains the difference between performing backups and archiving data	3
Describes the difference between performing backups and archiving data	2
Makes a general comment about performing backups and archiving data	1
Total	**3**
Answers could include: Backups are intended to provide a copy of data that can be used to restore systems in the event of a data loss event, while archiving is the process of moving data that is no longer needed for daily operations to a separate, secure location for long-term storage and future access.	
Accept other relevant answers.	

(b) Compare full and differential backup techniques. (4 marks)

Description	Marks
Compares full and differential backup techniques	4
Provides a general comparison of full and differential backup techniques	3
Describes full and/or differential backup techniques	2
Makes a general comment about full or/and differential backups	1
Total	**4**
Answers could include: • full backups are complete and stand-alone backups that can be used to restore an entire system, but they take longer to complete and require more storage space. Differential backups, on the other hand, take less time to complete and require less storage space but depend on a previous full backup and cannot be restored, if the full backup is missing • full backups provide a complete copy of the system, while differential only copies all the changes since the last full backup. Therefore, a full backup makes it easier to restore the entire system in the event of a disaster. However, a full backup can be time consuming and require a large amount of storage space. Differential, on the other hand, is faster and requires less storage space as it only backs up the changes made to files. However, differential backups are depended on the previous full backup. This means that if a full backup is missing, a differential backup cannot be restored.	
Accept other relevant answers.	

Question 22 (8 marks)

(a)   Outline the concept of 'service level agreements'. (2 marks)

Description	Marks
Outlines the concept of service level agreements	2
Makes a general comment about service level agreements	1
Total	2
Answers could include:	
A service level agreement (SLA) is a contract between the software development company and the user that outlines the minimum level of service that will be provided.	
Accept other relevant answers.	

(b)   Explain why the following **two** features are an important part of a service level agreement. (6 marks)

- Availability of service
- Type of service.

Description	Marks
For each feature (2 x 3 marks)	
Explains why it is an important part of a service level agreement	3
Describes why it is an important part of a service level agreement	2
Makes a general comment on why it is an important part of a service level agreement	1
Total	6

Answers could include:

Availability of service:
- availability of service refers to the amount of time that the service will be operational and accessible to the customer. The Service Level Agreement (SLA) may specify the level of availability; for example, 99% uptime that is required for the service which may include scheduled downtimes
- the availability of service is an important feature of SLAs because it ensures that customers have access to the services when they need it, and that any downtime is minimised and managed effectively. By specifying the level of availability required and establishing consequences for breaches or failures, the SLAs help to ensure that the service provided is accountable for maintaining a high level of uptime and availability.

Type of service:
- this refers to the specific nature of the service being provided, such as software for service and infrastructure. The type of service may include specific features, functionalities or applications that are included in the service offered
- this feature is important because it defines the scope and nature of the service being provided and establishes the expectations and requirements for both the service provider and customers. By specifying the type of service and the specific features and functionalities to be included, the SLA helps to ensure that the service provided is able to deliver the service as expected, and that customers are able to use the service effectively to meet their needs and requirements.

Accept other relevant answers.

Question 23 **(4 marks)**

Explain how typography can be used effectively in publishing a print advertisement, including an example.

Description	Marks
Explanation	
Explains how typography can be used effectively in publishing a print advertisement	3
Describes how typography can be used effectively in publishing a print advertisement	2
Makes a general comment about how typography can be used when publishing a print advertisement	1
Subtotal	**3**
Example	
Includes a relevant example	1
Subtotal	**1**
Total	**4**
Answers could include: Typography can be effectively used to convey emotions, grab the viewer's attention, establish brand identity and convey key messages to the viewer by using relevant font style, appearance, and structure. The use of consistent font and colour scheme can help build brand recognition and establish visual identity for the brand. For example, using the yellow and style of font for a McDonald's print advertisement reinforces McDonald's identity.	
Accept other relevant answers.	

Section Three: Extended answer   **20% (46 Marks)**

Question 24   **(46 marks)**

(a)   The network diagram on page 13 is incomplete; it requires a wireless access point to
        connect the wireless devices and a firewall for security purposes. Using the information
        from the scenario, state where you would position the wireless access point and the
        firewall and justify your choice of placements.   (8 marks)

Description	Marks
For each of the wireless access point and firewall (2 x 4 marks)	
Justifies the position, using the information from the scenario	4
Describes why the position has been chosen, based on information from the scenario	3
Makes a general comment about the position	2
States a relevant position	1
Total	**8**
Answers could include: • wireless access point: the best position for the wireless access point would be in the conference room. This is because the conference room is specifically mentioned as needing wireless access for guests and placing the wireless access point in this location would provide coverage for the conference room and the adjacent manager's room. Having the wireless access point in this location would ensure that the guests and staff have wireless access during their meetings and the manager would be able to take advantage of the wireless access during office meetings as well. If the wireless access point is closer to the door of the conference room, it should also provide access for the travel agent's mobile devices • firewall: should be placed between the modem and router. The modem is the conduit to the internet, while the router is the device that connects the travel agency's network to the internet. The firewall is a security device that monitors packets of information going in and out of the network, ensuring that only data that meets a set criterion will be allowed to move in or out. Additionally, the firewall can limit access to the network to the travel agents and the manager who work remotely.	
Accept other relevant answers.	

(b)   Referring to the scenario, identify and describe **two** other security measures the travel agency could use to protect its network. (6 marks)

Description	Marks
For each security measure (2 x 3 marks)	
Describes how the travel agency could use the security measure to protect their network, with reference to the scenario	3
Makes a general comment about the security measure	2
Identifies a security measure	1
Total	**6**
Answers could include: • access controls: limit physical access to the areas where network equipment is located. This could include biometric, key card or pin access to areas that hold the router, switch, and modem. This will prevent any unauthorised access • environmental control: ensure that network equipment is operating in optimal conditions. This could include temperature and humidity controls in the room with the switch, modem and router • password control: all users will need to be authenticated through their username and password. This limits access to the network and data to only authorised users • two-factor authentication: adds an extra layer of security to the agency's network login process by requiring users to provide two forms of identification to access the network e.g. will have to enter password and then enter a pin sent to their mobile devices.	
Accept other relevant answers.	

Question 24 (continued)

(c)   With reference to the scenario, discuss how a digital signature works to ensure the
        integrity of a document.   (4 marks)

Description	Marks
Discusses how a digital signature works to ensure the integrity of a document, with reference to the scenario	4
Explains how a digital signature works to ensure the integrity of a document, with reference to the scenario	3
Describes how a digital signature works to ensure the integrity of a document, with reference to the scenario	2
Makes a general comment about how a digital signature works	1
Total	**4**
Answers could include: • a digital signature proves that a document or message is authentic and has not been modified, corrupted or tampered with. It confirms that the information from the sender is authentic, by proving the identity of the individual/organisation. The travel vendors want to ensure that the private information of clients from the travel agents has not been compromised during the transmission of the message and prove that the information sent is from the travel agent • the travel agents will use a digital signature that will produce a unique hash (a string of numbers and letters) to be included in the message/document. The message/document and hash are then encrypted with the travel agent's private key. When the vendor receives the document/message, the digital signature will generate a hash for the vendor and the document/message is decrypted using the travel agent's public key. The travel agent's hash is compared with the vendor's hash and if they are the same the document/message is authenticated.	
Accept other relevant answers.	

(d)   Using **two** examples from the scenario, one for each protocol, justify the use of the HTTP and HTTPS protocols in the travel agency.   (6 marks)

Description	Marks
For each protocol (2 x 3 marks)	
Justifies, using one example from the scenario, the use of the protocol	3
Describes, using one example, the use of the protocol	2
Identifies the use of HTTP and/or HTTPS protocols	1
Total	**6**

Answers could include:

- HTTP: when looking for information online, HTTP (hypertext transfer protocol) is used. The supplied data is not encrypted; hence it can be intercepted by outside parties, making this protocol insecure. It is not necessary for the travel agents to have secure access as they are only gathering information from the websites and have not entered any personal or sensitive information
- HTTPS: in contrast, HTTPS (hypertext transfer protocol secure) uses encryption (secure socket layer) to secure the data being transferred, making it the best option for sending sensitive data like personal information and credit card numbers. The travel agency's circumstance calls for the usage of HTTPS since it assures the confidentiality and security of the clients' personal data, which is crucial for both the company and its customers. The usage of HTTPS additionally guarantees the data's integrity, particularly with personal details and contracts, throughout transmission as it guarantees that the data has not been compromised.

Accept other relevant answers.

Question 24 (continued)

(e)   With reference to the scenario, discuss the difference between the 802.3 and 802.11x
       communication standards.   (4 marks)

Description	Marks
Discusses the difference between the 802.3 and 802.11x communication standards, with reference to the scenario	4
Explains the difference between the 802.3 and 802.11x communication standards, with reference to the scenario	3
Describes the difference between the 802.3 and 802.11x communication standards	2
Defines the 802.3 and 802.11x communication standards	1
Total	**4**

Answers could include:

- 802.3 is the wired ethernet network standard that connects devices to a network through cable (twisted pair/ethernet cable), which will be used by the travel agents on their desktops and/or for the printer and television. 802.11 is the standard that is applied to data transmission over radio waves (Wi-Fi) and provides connection to the network for wireless devices such as the manager's laptop and/or those accessing it through the conference room
- the manager and remote travel agents will have the choice to use either 802.3 or 802.11. As the manager has indicated that they need to move around the office and use their computer in different locations they will use the wireless standard of 802.11 to connect to networks. However, while at their desk, they may have the opportunity to connect via ethernet cable which will use the 802.3 standard and provide a more secure connection. Likewise, the remote travel agent can connect to their own network using the 802.11 standard providing portability and they may also connect to the network using an ethernet cable connected to their home router using the 802.3 standard, which will provide a more reliable connection.

Accept other relevant answers.

(f) The manager would like to know why they are using cloud-based storage instead of a server. With reference to the scenario, outline **two** advantages and **two** disadvantages for the travel agency of using a cloud-based storage system over a local server. (8 marks)

Description	Marks
For each advantage (2 x 2 marks)	
Outlines, referring to the scenario, an advantage of a cloud-based storage system over a local server	2
Identifies an advantage of using a cloud-based storage system over a local server	1
Subtotal	**4**
For each disadvantage (2 x 2 marks)	
Outlines, referring to the scenario, a disadvantage of a cloud-based storage system over a local server	2
Identifies a disadvantage of using a cloud-based storage system over a local server	1
Subtotal	**4**
Total	**8**

Answers could include:

Advantages:
- scalability: cloud storage allows for easy scalability, so the travel agency can increase or decrease the amount of storage they use based on their needs
- cost: cloud storage is typically more cost-effective than maintaining an in-house server, so the travel agency will only pay for what they use and don't have to worry about the upfront costs of hardware and maintenance
- reliability: cloud storage providers often have multiple data centres and employ robust disaster recovery procedures to ensure the availability of the travel agency's data in case of a server failure
- accessibility: cloud storage allows for easy access to the data from anywhere with an internet connection, making it convenient for the travel agents to collaborate
- security: many cloud storage providers employ advanced security measures to protect the data of the travel agency, such as encryption and multi-factor authentication.

Disadvantages:
- hacking/data breaches: if the travel agency has data saved in the cloud it may be more susceptible to hacking and data breaches, whereas data maintained on an internal server can be more tightly controlled in terms of security
- limited control over data: the travel agency might have more control over the data's storage, management, and backup by using an internal server, whereas it may have less control over certain areas of data management in a cloud environment
- dependence on internet connectivity: accessing data saved in the cloud necessitates a steady internet connection, which can be problematic for those working within the travel agency
- cost: cloud storage may be less expensive for the travel agency than an internal server for smaller data volumes that are rarely accessed, but for bigger data volumes and frequent access, it may be more costly.

Accept other relevant answers.

Question 24 (continued)

(g)   Describe the concept of data mining and explain how it could be used by the head office
       of Explore Expeditions.   (5 marks)

Description	Marks
Description	
Describes the concept of data mining	2
Makes a general comment about data mining	1
Subtotal	**2**
Explanation	
Explains how data mining could be used by the head office of Explore Expeditions	3
Describes how data mining could be used by the head office of Explore Expeditions	2
Makes a general comment about how data mining could be used	1
Subtotal	**3**
Total	**5**
Answers could include: Description: data mining is the process of extracting useful information from large sets of data. This information can be used to identify patterns and trends that can help businesses make better decisions. Explanation: head office could use the data from all of the franchisees (travel agencies) to analyse customer travel habits and preferences. The information could be used to improve Explore Expeditions' marketing efforts, to create more personalised travel packages or to identify new travel destinations that may be of interest to customers in their different agencies.	
Accept other relevant answers.	

(h) The manager would like some advice on setting out a code of conduct for the travel agency staff. Describe the purpose of a code of conduct and, with reference to the scenario, explain the importance of **one** of the elements of a code of conduct. (5 marks)

Description	Marks
Description	
Describes the purpose of a code of conduct	2
Makes a general comment about the purpose of a code of conduct	1
Subtotal	**2**
Explanation	
Explains the importance of an element of a code of conduct, with reference to the scenario	3
Describes the importance of an element of a code of conduct, with reference to the scenario	2
Makes a general comment about an element of a code of conduct	1
Subtotal	**3**
Total	**5**
Answers could include: Description The purpose of a code of conduct for the employees of the travel agency is to outline the expectations and guidelines for the behaviour and performance of employees within the organisation. It is supposed to serve as a reference for employees to understand the company's values, mission and goals, and the ethical and professional standards that are expected of them. Explanation Employee email use: training should be provided to ensure that employees understand that any use of company emails should be for professional purposes only. This is because these emails will be associated with the name of the company (Explore Expeditions), through both the email address and signature. What is more, in this situation, is that the email will not only represent the store it is sent from, but will be linked with the entire brand, through the branding of the email, so any misuse could have serious repercussions for all franchisees.	
Accept other relevant answers.	

Section Four: Scenario **40% (75 Marks)**

Question 25 **(75 Marks)**

(a) You have advised Charlie and Alex that you will be employing the prototype approach to developing the app. Suggest **two** reasons why the prototype approach, rather than the structured approach, is the preferred method. (6 marks)

Description	Marks
For each reason	
Suggests a reason why the prototype is the preferred method	3
Describes a reason why the prototype is the preferred method	2
Makes a general comment about a reason why the prototype is the preferred method	1
Total	**6**
Answers could include any two of the following: The prototype approach can be a better choice for app development because of • flexibility: the app is developed in iterative stages and changes can be made at each stage based on user feedback. This allows for greater flexibility and agility in the development process, as changing users' needs can be quickly adapted • faster development: because the app is developed in iterative stages, they can focus on building the most important features first, which can be delivered to users quickly. This allows for faster time-to-market and a competitive advantage • reduced risk: by developing a prototype and getting user feedback early in the process, they can identify potential issues and make necessary changes before investing too much time and resources into development which is the case with structured approach where it is difficult to implement changes as there is no early testing/trialling before releasing the app.	
Accept other relevant answers.	

(b)   Outline **three** online software tools that you recommend for communicating and sharing resources, designs and plans.   (3 marks)

Description	Marks
For each online software tool (3 x 1 mark)	
Outlines the online software tool to communicate and share resources, designs, and plans	1
Total	**3**

Answers could include:

- Google Workspace suite of tools, designed for collaboration, including Gmail Google drive, Google Docs
- Zoom, a video conferencing tool that allows teams to hold virtual meetings
- Microsoft Teams offers features like chat, video conferencing and file sharing
- Asana project management tool helps track tasks and assign responsibilities
- Slack is a messaging platform that allows communication in real-time.

Accept other relevant answers.

(c)   (i)   Describe a purpose of W3C.   (2 marks)

Description	Marks
Describes a purpose of W3C	2
Makes a general comment about W3C	1
Total	**2**

Answers could include:

- to ensure that the web remains open, accessible and innovative platform that can be used by everyone around the world
- to create a web that is accessible, interoperable and usable for all people around the world, regardless of their device, location or ability.

Accept other relevant answers.

Question 25 (continued)

(ii)   In relation to the website and the development of the app, explain the purpose of
the Web Design and Applications standard from the W3C standards for:

(12 marks)

- HTML
- CSS
- Mobile web
- Graphics

Description	Marks
For each (4 x 3 marks)	
Explains the purpose of the standard	3
Describes the purpose of the standard	2
Makes a general comment on the standard	1
Total	**12**
Answers could include: - HTML: to provide the structure and content of the webpage/app by using different tags to define headings, paragraphs, links, images, forms and other types of content - CSS: to ensure that web developers have a consistent set of rules and guidelines to follow when designing and styling webpages. This includes layout, fonts, colours and other design elements - mobile web: to provide a set of guidelines and best practices for creating web content that is optimised for a range of mobile devices, platforms, and browsers. This includes responsive web design, touch-based interactions, accessibility, and performance optimisation - graphics: to provide a set of guidelines and specifications for creating and displaying graphics on the web. The graphics standard includes specifications for graphics formats, such as, JPEG, PNG, and SVG, as well as guidelines for the use of graphics on the web.	
Accept other relevant answers.	

(d) (i) With reference to Charlie and Alex's storyboard, explain how **three** video and/or sound application features could be used to create an engaging promotional video. (9 marks)

Description	Marks
For each feature (3 x 3 marks)	
Explains how the feature can be used to create an engaging promotional video, with reference to the storyboard	3
Describes how the feature can be used to create an engaging promotional video, with reference to the storyboard	2
Makes a general comment about how the feature can be used to create an engaging promotional video	1
Total	9
Answers could include: • music and sound effects: promotes a feeling/emotion or creates a mood that will capture the attention of the audience. A promotional video, showing an excited person ready to receive their food delivery, requires a high-energy soundtrack with explosive sound effects to create excitement and anticipation • voiceover narration: should provide important information about a product or service in a clear and compelling way. The promotional video may require a voiceover to provide additional information, such as key information about the Food Fest app • animation and visual effects: used to create visually stunning advertisements that capture the attention of the audience. For example, the promotional video might use visual effects to show a car delivering the food fast, highlighting its fast delivery services.	
Accept other relevant answers.	

(ii) Identify **two** accessibility features that have been considered for the promotional video and explain how each one improves accessibility for users with different needs. (8 marks)

Description	Marks
For each feature (2 x 4 marks)	
Explains how it improves accessibility for users with different needs	4
Describes how it improves accessibility for users with different needs	3
Makes a general comment about the accessibility feature	2
Identifies the accessibility feature	1
Total	8
Answers could include: • closed captions: text version of the audio content of the video advertisement displayed on the TV screen. This feature improves accessibility for users who are hard of hearing or deaf. The audience can read the dialogue and sound effects of the video • adjustable playback speed: this feature, available online, allows users to increase or decrease the speed of the video playback, making it more accessible to those who have difficulty processing information. This allows the audience to better understand the information.	
Accept other relevant answers.	

Question 25 (continued)

(e) Describe how the following publishing features could be incorporated into your app
design. (6 marks)

- Colour schemes
- Typography
- Templates

Description	Marks
For each feature (3 x 2 marks)	
Describes the publishing feature and how it could be incorporated into the app design	2
Makes a general comment about the publishing feature and how it could be incorporated into the app design	1
Total	**6**

Answers could include:

- colour schemes: the combination of colours used within the app design. To incorporate this into the app, you can choose a colour scheme that aligns with the branding or theme. This will create a consistent look and feel
- typography: the selection of fonts, sizes and styles used in the app design. To incorporate this into the app, you can choose fonts that are easy to read and match the style of the app
- templates: the pre-designed layouts that can be used to create consistent and efficient designs. To incorporate this into the app, you can create templates for different types of content, such as blogs, images, or video. This can make the layout consistent and easy to navigate for the user.

Accept other relevant answers.

(f) (i) Explain the appropriateness of the layout and structure of Charlie and Alex's website design. (3 marks)

Description	Marks
Explains the appropriateness of the layout and structure of Charlie and Alex's website design	3
Describes the appropriateness of the layout and structure of Charlie and Alex's website design	2
Makes a general comment on the appropriateness of the layout and structure of Charlie and Alex's website design	1
Total	**3**

Answers could include:

- the layout and structure of the website design is appropriate, as it prioritises the user experience. The content is accessible, easy to navigate and visually appealing. In addition, the branding and purpose of the website is clear and appropriate
- the navigation bar is situated at the top of the webpage, creating consistency for the users and enabling them to easily navigate, search and/or login to their user account
- there is a balance between use of images and text, creating breathing space for the viewers, allowing users to navigate and explore content without distraction.

Accept other relevant answers.

(ii) Describe the organisation of content and how it is suitable for Charlie and Alex's website. (3 marks)

Description	Marks
Describes the organisation of content and how it is suitable for Charlie and Alex's website	3
Makes a general comment on the organisation of content and how it is suitable for Charlie and Alex's website	2
Makes a superficial comment on the organisation of content or how it is suitable for Charlie and Alex's website	1
Total	**3**
Answers could include: the organisation of content is hierarchical, logical and prioritises the important information. Content is grouped into sections, is concise and includes images. This improves user experience and ease of use.	
Accept other relevant answers.	

(iii) Critically analyse the relationship between **one** principle and **two** or more elements of design. (6 marks)

Description	Marks
Critically analyses the relationship between a principle and two or more elements of design	6
Analyses the relationship between a principle and two or more elements of design	5
Discusses the relationship between a principle and two or more elements of design	4
Explains the relationship between a principle and two or more elements of design	3
Describes the relationship between a principle and an element of design	2
Makes a general comment about a principle and/or element of design	1
Total	**6**
Answers could include: Contrast: creates visual difference between two or more elements of design and can help to create visual interest, hierarchy, and emphasis in a design. By using contrasting colours, designers can draw attention to specific elements in a design. By choosing typeface, font size and weight can help to create hierarchy and emphasis in the design. For example, using a bold and large font for the title, creates significant contrast, drawing attention to the title.	
Accept other relevant answers.	

Question 25 (continued)

Your design must include annotations and show:

(g) (i) the layout and structure of your intended design. (5 marks)

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

(ii) the elements and principles of design used and a critical analysis of the relationship between them. (5 marks)

Description	Marks
Produces a design that clearly indicates the elements and principles of design used and a critical analysis of the relationship between them, including supporting annotations	5
Produces a design that indicates the elements and principles of design used and the relationship between them, including supporting annotations	4
Produces a design that indicates the elements and principles of design used and the relationship between them, including some supporting annotations	3
Produces a design that features some of the elements and principles of design, some description of the relationship between them and some relevant annotations	2
Produces a design in which some of the elements and principles of design have been used but the relationship between them is unclear and there are inadequate or no annotations	1
Total	**5**

(iii) the organisation of content suitable for the given digital medium. (3 marks)

Description	Marks
Produces a design in which content is organised in a logical and practical way, suitable for the given digital medium, and that includes supporting annotations	3
Produces a design that shows some practical organisation of content, suitable for the given digital medium, and that includes some relevant annotations	2
Produces a design that shows limited organisation of content for the given digital medium and that has inadequate or no annotations	1
Total	**3**

(iv)   user-generated content feature(s), suitable for the target audience.   (2 marks)

Description	Marks
Produces a design with annotations that indicates user-generated content feature(s), suitable for the target audience	2
Produces a design that indicates user-generated content	1
Total	**2**

(v)   a feature that considers usability.   (2 marks)

Description	Marks
Produces a design with annotations that includes a feature that considers usability	2
Produces a design that considers usability	1
Total	**2**