Q1.

		Answer	Do not accept	Additional Guidance	Mark
(i)		Answer **C**			**(1)**
(ii)		**One way from:** • https:// is displayed in the address bar • Security status bars are used/green bar is shown on secure websites • A message is displayed by your browser	• 'Padlock' because it is in the question		**(1)**

Q2.

	Answer	Do not accept	Additional Guidance	Mark
	Any two reasons from: • Internet related problems, e.g. slow connection speed, impact of ISP traffic management, insufficient bandwidth • Hardware performance related issues, e.g. not enough space in cache, inappropriate buffer size 2×1			**(2)**

Q3.

	Answer	Do not accept	Additional Guidance	Mark
	Any two disadvantages from: • Dependent on internet being available • Dependent on service being available • Can be slow • May lack some features found in locally stored software 2×1			**(2)**

Q4.

	Answer	Do not accept	Additional Guidance	Mark
	• So that the website displays properly on different sized screens/different platforms (1) to optimise bandwidth (1) 1+1			**(2)**

Q5.

	Indicative Content
	Indicative content for a discussion on the impact of digital devices on the way students learn **Organisation** - Apps (calendar/alarms/notepad/task lists) can be used to help organise work schedule - Meetings can be arranged using social networking apps/text/phone - Synchronisation with email **Accessibility** - Guaranteed access to online materials (where there is a connection) - Screen readers can help some students - Translation tools can help EFL students - Familiar interface **Features** - Camera/video camera (recording practical demonstrations/evidence for assessment) - Media player (watching podcasts etc) - Voice recorder (taking notes for future playback) - Can be used as a digital storage device - Apps can be used to complete work on the move (Mobile versions of basic office software/drawing tools, etc) **General** - Learning materials can be downloaded and saved for viewing later - Increases experience of using technology appropriately - Improves participation for some students due to new way of working - Provides access to collaborative technologies (hosted applications etc) **Positive Impact** - Encourage anywhere, anytime learning-gather, access and process information outside the classroom. - Improve interaction as digital devices helps with online collaboration and communication - Personalised learning-allows for differentiated learning - Rich media- allows for differentiation- different learners different learning styles - Other sources of expert help available online - Can ask for feedback from others online to help improve work **Negative impact** - Potential distraction/ students viewing content that is off-topic or playing games, hinder learning capabilities - Unethical behaviour-difficulty monitoring inappropriate content/ distribution by students

- Impact on health such e.g. eyestrain, RSI as they will be increasing screen time on top of what they may do outside of the classroom

Level	Mark	Descriptor
	0	No rewardable content
1	1-2	The student identifies a number of examples of the impact of digital devices, probably with limited reference to the way students learn. Their responses are general. The student uses everyday language but their response lacks clarity and organisation. Spelling, punctuation and the rules of grammar are used with limited accuracy.
2	3-4	The student's response is mostly accurate and includes a number of examples of the impact of digital devices on the way students learn. They make some attempt to justify the identified impacts. The student uses some specialist terms and their response shows some focus and organisation. Spelling, punctuation and the rules of grammar are used with some accuracy.
3	5-6	The student has produced a factually accurate response that includes a range of appropriate examples of the impact of digital devices on the way students learn. Their responses include a justified discussion. The student uses appropriate specialist terms consistently and their response shows good focus and organisation. Spelling, punctuation and the rules of grammar are used with considerable accuracy.

Q6.

		Answer	Do not accept	Additional Guidance	Mark
(i)		**Any two advantages described:** • Enhanced accessibility provided by (1) text to speech conversion/language translation/option to change colours and font sizes (1) • Can support / develop understanding (1) by including inline multimedia / hyperlinks to online material (1) • Search facility / Digital index (1) increases the efficiency of research (1) • Can add digital bookmarks (1) to categorise and organise topics (1) • (Non-destructive) opportunities to comment and discuss (1) through the addition of electronic annotation (1) • Information searching made easier (1) by allowing user to categorise sections using keywords (1) • Copying and pasting sections (1) allows quick restructuring of information (1) • More eco friendly than printed books (1) doesn't involve cutting down trees(1) 2×(1+1)		One mark for initial advantage. One mark for additional linked point.	**(4)**
(ii)		**Any two from:** • Not all books available in digital format • Format dependent • Some people may be more comfortable using a paper-based book • Cannot hand-write annotations • Power dependent • Requires connection to			

	internet/download source to get new e-books • Reader could be black and white only 2×1			(2)

Q7.

	Answer	**Do not accept**	**Additional Guidance**	**Mark**
(i)	B			**(1)**
(ii)	Two benefits from: • Cannot be damaged/lost in transit. • Process can be automated. • Cheaper as no paper/P+P costs • Can be reissued (more easily) • Less environmental impact (less paper used) • Cheaper than printing • Security staff do not have to collect tickets • Prevents fraud/touting/counterfeiting	• Free to send • Cheaper (without expansion) • Cannot be lost (without expansion)	Must be benefits to City arena in gain credit.	**(2)**
(iii)	Two drawbacks from: • Accidental deletion • Dependent on battery life • Don't have a 'real' product • Need a compatible device to receive/display the e-ticket/ has to take her phone to the concert • Some people might find it complicated. • Vulnerable to security flaws (hacking/virus/corruption etc) • Might make the receiving device more of a target for theft	• Can't sell/give the ticket away • Phone lost/stolen		**(2)**
(iv)	D			**(1)**

| (v) | **Explanation:**
She would **still** be able to access her e-ticket (1) if she had no connectivity/ (MMS) message was deleted / lost (1) | • Can be forwarded
• Can't be lost | Students must refer to the continued availability of the ticket, not simply the availability. | **(2)** |

Q8.

		Answer	Do not accept	Additional Guidance	Mark
		Any two from: • Current / Average Speed • Estimated Time of Arrival (ETA) • Distance travelled/remaining • Distance between different runners • Amount of time remaining until finish.	• Alternative routes (etc.) • Location (it is in the question)	Must be related to use in context (not motor travel)	**(2)**

Q9.

		Answer	Do not accept	Additional Guidance	Mark
		Explanation: User's location is published / accessible (1): • and this information might be shared (1) • someone might use the data inappropriately (1)		Must include *risk* for 2nd mark	**(2)**

Q10.

		Answer	Do not accept	Additional Guidance	Mark
(i)		• To find information on the internet/www (1) based on key words/phrases (1) 1+1			**(2)**
(ii)		B			**(1)**
(iii)		D			**(1)**
(iv)		**Any two benefits from:** • Able to locate information anywhere, anytime • Able to gather information from a range/variety of sources • Provides different types	• Faster/quicker		

	of information, e.g. videos/animations • Can use forums to ask for help from other internet users • Online information is likely to be more up to date than printed information • Links between sites help researchers to pursue lines of enquiry • Information found on the web is in digital format making it easier to incorporate into own work 2×1			**(2)**
(v)	**Any one method from:** • WiFi • Bluetooth • MMS to teacher • Memory card/stick • 3G connection • Connect to PC via USB/firewire (any acceptable method of connection) 1×1	• Text message/SMS		**(1)**