MODULE F THE INTERNET · F4

Cookies: session vs persistent: mark scheme

21 marks · Cambridge 0478 syllabus 5.1.6 (cookies, session and persistent, and their uses) and 5.1.4 (web browser stores cookies)

How to use. One mark per creditworthy point up to the maximum shown. **/** separates alternative words; **//** separates alternative answers. Words in (brackets) are not needed for the mark. "..." means the point builds on the one before. Credit any other valid answer that shows the same understanding.

QUESTION	ANSWER	MARKS	GUIDANCE
1(a) 0478 5.1.6	Any two from: A small text file // a small file / piece of data Sent by a website / web server (when a web page is visited) Stored on the user's computer / device // stored by the web browser Holds data about the user / their visit // e.g. preferences, login details, items in a cart Can be session (temporary) or persistent (kept until it expires)	**2**	max 2. Credit any other valid answer. Do not accept "a program" or "a virus".
1(b) 0478 5.1.4 / 5.1.6	(Web) browser	**1**	Do not accept "the operating system", "the web server" or a brand name.
2(a) 0478 5.1.6	Session cookie deleted when the browser is closed: True Persistent cookie deleted when the user moves to a different page: False Persistent cookie can stay until its expiry date: True Session cookie kept on secondary storage between visits: False	**4**	One mark per correct row. A row with both boxes ticked scores 0.
3(a) 0478 5.1.6	One mark for each correct row: Language and text size: tracking / storing / remembering user preferences // settings Name, address, phone number: saving / storing personal details // auto-filling (a form with) personal details Bikes and helmet in the basket: holding items in an (online) shopping cart / basket No need to enter username and password: storing login details // keeping the user logged in	**4**	Accept equivalent wording. Each situation needs a different function: do not accept "saving personal details" for the login row, or "storing login details" for the name and address row. Do not accept "storing data" or "remembering the user" alone.

QUESTION	ANSWER	MARKS	GUIDANCE
3(b) 0478 5.1.6	Language remembered next month: Persistent Basket items removed when the browser is closed: Session Logged in for 14 days: Persistent	**3**	One mark per correct row. A row with both boxes ticked scores 0.
4(a) 0478 5.1.6	Any four from: A session cookie is temporary // stored in memory (not on secondary storage) A session cookie is deleted when the web browser is closed ... so the guest is logged out / the login is removed when they close the browser ... so the next guest cannot access the first guest's account // personal / booking / payment details A persistent cookie stays on the computer / secondary storage after the browser is closed ... until its expiry date / until it is deleted ... so the next person to use the computer could be logged in (automatically) as the first guest The guest may forget to log out, so a persistent cookie could leave them logged in	**4**	max 4. Do not accept "session cookies are more secure" or "safer" alone. Credit any other valid answer that links the type of cookie to the shared computer.
5(a) 0478 5.1.6	Any three from: When the reader chooses their topics, the website / web server sends a cookie (to the browser) The cookie holds the reader's preferences / chosen topics // an ID linked to them The web browser stores the cookie on the reader's device / secondary storage The cookie is not deleted when the browser is closed // it stays until its expiry date (which is more than a week away) / until it is deleted When the reader visits again, the browser sends the cookie (back) to the website // the website reads the cookie The website uses the data to show the chosen topics first // the reader does not need to choose again	**3**	max 3. Credit any other valid answer. Do not accept "it remembers the user" alone.

Total: 21 marks