City&
Guilds

Qualification title: 5220 Level 2 Technical Award in Digital

Technologies

Exam name: 5220-020/520 Level 2 Technical Award in Digital Technologies

– Theory Exam

Exam date: 27 February 2018

Exam start time: 9:30

Exam finish time: 12.00

Base mark: 80

Q	Acceptable answer(s)	Guidance	Max mks	Ref
1	1 mark for **each** file extension, maximum of 2 marks. • .psd (1) • .xls(x) (1)	Any of the following or any other reasonable answer	2	251 – 1.2 **A01**
2	1 mark for **each** state, maximum of 2 marks. • Optical (1) • Mechanical hard drives (1) • Solid State (1) • Cloud (1)	Any of the following or any other reasonable answer	2	251 – 1.2 **A01**
3	2 marks for **each** description, maximum of 6 marks. • <u>Peer-to-peer</u> (P2P) network is created when two or more PCs are connected to share resources (1) without having centralised administration (1) provided by a server. • <u>Client server</u> environment is a network that has centralised administration (1) and security (1). • <u>LAN</u> is a network that is confined to a small geographical area (1) that shares a common cable or wireless connection (1) to a server or router.	Any of the following or any other reasonable answer	6	251-2.2 **A02**
4	2 marks for **each** description, maximum of 4 marks.	Any of the following or any other reasonable answer	**4**	**251-2.2** **A02**

	• A <u>router</u> is a network device that connects remote networks (1) making routing decisions based on IP addresses (1). • A <u>switch</u> is used to connect devices on a Local Area Network (LAN) (1) and filters traffic based on MAC addresses (1).			
5	2 marks for **each** description, maximum of 6 marks. • <u>Cyber bullying</u> is an act of harassing someone online (1) by sending/posting menacing messages (1) usually anonymously. • *Grooming* is when someone builds an emotional connection (1) with an individual to gain their trust (1) for the purposes of sexual abuse, sexual exploitation or trafficking. • *Identity theft* is a crime in which an imposter obtains key pieces of personally identifiable information (1), to impersonate someone else (1).	Any of the following or any other reasonable answer	6	251-3.1 A02
6	1 mark for **each** technology, maximum of 2 marks. • Short Messaging Service (SMS) (1) • Multimedia Messaging Service (MMS) (1)	Any of the following or any other reasonable answer	2	252-1.1 A01
7	1 mark for any of the following, maximum of 2 marks. **Risks** • Identity theft (1) • Phishing (1) • Grooming (1) • Cyber bullying (1) • Sexting (1)	Any of the following or any other reasonable answer	2	252-1.4 A01
8	2 marks for **each** description, maximum of 6 marks. • <u>Word processing</u> applications are primarily intended to allow user to create text file (1) and format the text (1) contained in these files. • <u>Image editing</u> software is designed to allow users to manipulate (1) and enhance (1) images. • <u>Presentation</u> software is a specialist software that allows users to display information in the form of a slide show (1) to a group of people (1).	Any of the following or any other reasonable answer	6	252-2.1 A02

9	2 marks for each description, maximum of 4 marks. • A user can gain unauthorised access (1) to sensitive information with intent to commit a crime (1). • A user can make unauthorised modifications (1) of computer material (1) without permission. • A user can use computer equipment for the making (1) or supplying (1) of anything which can be used in computer misuse offences.	Any of the following or any other reasonable answer	4	**252-1.3** **A02**
10	1 mark for **each** item stated, maximum of 4 marks. • Software (1) • Domain name (1) • Protocols (1) • Coding (1) • Cross platform compatibility (1) • Cyber safety (1) • Colour palettes (1) • Accessibility (1) • Legal constraints (1)	Any of the following or any other reasonable answer	4	**253-3.1** **A01**
11	2 marks for **each** description: maximum of 6 marks. • .RAW contains unprocessed data (1) and the size of the file will be large because of the amount of information contained (1). • .EPS is a file format used in vector based images (1) that also contains a bit map version of the image (1). • .MP4 is a compressed video format (1) that supports audio as well as video content (1).	Any of the following or any other reasonable answer	6	**253-1.1** **A02**
12	2 marks for **each** description, maximum of 6 marks. • The use of Alternative text / tags to provide a description of an image (1) that enables a screen reader to describe the image (1) to a visually impaired person. • The selection of High contrast colours (1) can make the content easier to read (1). • The use of HTML 5 mark-up language (1) to ensure that content is suitable for use on mobile devices (1).	Any of the following or any other reasonable answer	6	**253-3.1** **A02**
13	2 marks for **each** description, maximum of 4 marks.	Any of the following or any other reasonable answer	4	**253-2.1**

	• The availability of the CODECS (1), to enable the video content to be played in browser / application software (1). • The file type used (1) as this may only be compatible with certain platforms (1).		A02
14	1 mark for **each** item, maximum of 4 marks. • Access control systems (1) • Closed Circuit Television (CCTV) (1) • Vehicle recognition (Number plate recognition) (1) • Facial recognition (1) • Data logging (1)	Any of the following or any other reasonable answer	4	**254-1.1** **A01**
15	2 marks for **each** description, maximum of 4 marks. • That the data structure is suitable (1) and allows the data to be managed in the required format (1). • That the data contained complies with legal requirements (1) such as the Data Protection Act or any other current legislation (1).	Any of the following or any other reasonable answer	4	**254-3.1** **A02**
16	**Band 1** **1 – 3 marks** There is limited discussion of the legal and ethical requirements. Consideration of the methods of gathering data is limited. The description of data storage and software is basic. **Band 2** **4 – 6 marks** There is adequate discussion of the legal and ethical requirements. Consideration of the methods of gathering data is adequate. The description of data storage and software is adequate and logical. **Band 3** **7 – 9 marks** There is well developed discussion of the legal and ethical requirements that is logically structured. Consideration of the methods of gathering data is thorough. The description of data storage and software is comprehensive.	Indicative content: • Legal and ethical requirements • Methods of gathering data • Data storage and software *For no awardable content, award 0 marks.*	9	**251** **1.1,** **2.4, 3.2** **252** **1.2, 1.3** **253 1.1** **254** **1.1,** **1.2,** **2.3,** **3.1, 3.2** **A04**
17	**Band 1** **0 – 3 marks**	Indicative content: • Use of text files: simple text editor application	9	**251:** **1.1;** **1.2,** **3.1, 3.2**

There is limited discussion of the capabilities of their current software. Consideration of the methods of incorporating images is limited. The description of advantages and disadvantages of different types of software is basic. **Band 2** **4 – 6 marks** There is adequate discussion of their current software. Consideration of the methods of incorporating images is adequate. The description of advantages and disadvantages of different types of software is adequate and logical. **Band 3** **7 – 9 marks** There is well developed discussion of their current software that is logically structured. Consideration incorporating images is comprehensive. The description of data storage and software is thorough.	• Different image files: image processing and enhancement software • Advantages and disadvantages of different types of software *For no awardable content, award 0 marks.*		**252:** **1.2;** **1.3;** **2.1; 2.2** **253:** **1.1; 2.3** **254 1.1** **A04**