GCSE MARKING SCHEME

SUMMER 2016

ICT - UNIT 1
4331/01

INTRODUCTION

This marking scheme was used by WJEC for the 2016 examination. It was finalised after detailed discussion at examiners' conferences by all the examiners involved in the assessment. The conference was held shortly after the paper was taken so that reference could be made to the full range of candidates' responses, with photocopied scripts forming the basis of discussion. The aim of the conference was to ensure that the marking scheme was interpreted and applied in the same way by all examiners.

It is hoped that this information will be of assistance to centres but it is recognised at the same time that, without the benefit of participation in the examiners' conference, teachers may have different views on certain matters of detail or interpretation.

WJEC regrets that it cannot enter into any discussion or correspondence about this marking scheme.

GCSE ICT - UNIT 1

SUMMER 2016 MARK SCHEME

Question	Answer	Max mark
1. (a)	**Award 1 mark per point.** Presentation (software) / Photo presentation software / movie software / web design or authoring software. Condone PowerPoint presentation but not PowerPoint on its own. Word processing (software)/DTP/Publishing/Email. Data logging (software). **NB No Brand names**	3
1. (b) (i)	**Award 1 mark for correct ticked box** **4** ✓ **6** ✓ **7** ✓ *If tick all boxes no marks* *If tick 5 boxes then max 1 mark* *If tick 4 boxes then max 2 marks*	3
1. (b) (ii)	Any **two** from: **Award 1 mark** for the document and **1 mark** for a different use. Menu – To give details of food available. Signs – e.g. way to toilets. Labels – To create price labels, desk labels to show the name of each stall. Newsletters – To send home to parents with information of timings, donations required. Banners – To hang around the fayre stalls. Certificates – For the most amount of money raised. Leaflet – Programme of events. Tickets-to get in. Flyers – to advertise (the Fayre). Timetable – to show when events take place. Must be two completely different uses. Credit any other reasonable answer **NOT** letters **NOT** poster	2x2
2. (a)	Must be definition not a use Award 1 mark for **electronic** message/**electronic** letter Award 1 mark for between /computers/mobile phone /across network/ via Internet/online **NOT** *'messages sent by a computer'* **NOT** *'letter' by itself*	2
2(b)	**Award 1 mark per correct response.** **True** **False** **False** **True** **False**	5

Question	Answer	Max mark
2. (c)	**Award 1 mark for <u>disadvantage</u> and 1 mark for <u>method of prevention</u> from the list below X 2** Spam / junk mail – spam filter/block sender Hacking – change passwords regularly / use a firewall / monitoring software/spyware Cyber bullying – parental control / parents checking email/report Inappropriate / pornographic attachments – email monitoring Staff using for personal use – workplace monitoring / code of conduct Information overload - only send to those who you need to Email account restrictions/limitations on file size transfer – compression / larger file transfer facilities *Can get prevention mark if disadvantage incorrect but do not award same prevention twice.* Some may be inter-changeable e.g. only allow blocking once. **NOT** Phishing and viruses **NOT** Anti-virus software	4 1
3	Award 1 mark per response 3 4 *If more than one box is ticked in any row - no mark for that row* 8 11	4
4	**Award 1 mark for each of three advantages from:** **Allow any advantage only once** They can reduce fuel use **so are 'greener'** Can select/plan the shortest route to **save money** Gives estimated time from A to B / shows **how long it takes** / **give estimated time of arrival** from one place to another Can be warned in advance of any holdups/traffic jams/tolls / can **suggest alternative routes** Helps you to keep to planned route / can give you directions to where you are going /plan routes from A to B to **stop you getting lost / you can find your location if you get lost.** **Provides emergency help** Can be found/tracked if lost in an emergency. Can find places of interest / petrol stations, supermarkets etc. **to save time/petrol** Can see aerial view /street view/ spatial awareness / street view can give an exact image of the location **so don't need to pre-visit site** **Accurately** predict the weather/use weather forecasts to **help in future planning** Any reasonable use but must have an advantage Answers must be qualified **NOT** 'to see how long it takes' or 'to see what the area is' **NOT** general advantages e.g. Easier to carry / Can take it anywhere **Award one mark for a disadvantage from:** <u>Systems/software/ data</u> not accurate or up to date / <u>maps</u> could be out of date (Satellite navigation systems) can send you down roads which are too narrow (Using satellite navigation systems) can distract drivers and cause accidents Problems with loss of <u>satellite</u> signal /internet <u>connection</u> Can <u>drain</u> battery quickly / Needs to be <u>charged</u> more regularly Can be used to stalk users without their consent **NOT** Cost of equipment **NOT** Uses battery **NOT** just loss of signal/not can lose connection **NOT** inaccurate if accuracy given as an advantage	3

Question	Answer	Max mark
5. (a)	**Award 1 mark for** 8	1
5. (b)	**Award 1 mark for** 2	1
5. (c)	**Award 1 mark per point** Stall ID To **uniquely** identify the stall / to make each record unique / **unique** identifier	2
5. (d)	**Award 1 mark for each** correct field and search criteria x2 **Award 1 mark if** both fields are correct **but** search criteria incorrect **Award 1 mark if** both search criteria are correct **but** fields are incorrect Search criteria must be spelt correctly 	Field	Logical Operator	Search Criteria
Stall Size	=	Large
Stall Size	=	Medium		2
5. (e)	**Award 1 mark for** Year	1
5. (f)	**Award 1 mark for:** The <u>Date Idea Submitted)</u> is incorrect for N Khan / Stall 5. There are not 37 days in May / There are only 31 days in May / **37**/05/2016 **NOTE: needs to identify the record** **Award 1 mark for type** Range check Dedicated drop list with three Date Month Year **Award 1 mark for range** The day should be between 1 and 31.	3
6. (a)	**Award 1 mark for:** Currency **NOT** Money	1
6. (b)	**Award 1 mark for**: Merge / Merge cells	1
6. (c)	**Award 1 mark for:** **B** (= D6+D11+D17)	1
6. (d)	**Award 1 mark for:** =F6/F3 Condone divide sign /SUM Must have = sign	1
6. (e)	**Award 1 mark each** for any of the following. Any **three** of: Accurate/correct calculations Automatic **re-**calculation Save formula and data Do 'what ifs' Draw graphs Replication Use macros to navigate quickly Accept any reasonable advantage but not just a use **NOT** 'can do sums' **NOT** 'faster' **NOT** 'easier' **NOT** just Automatic calculations	3

Question	Answer	Max mark
6. (f)	**Award 1 mark for each point**. • Absolute cell referencing - cell reference will not change/lock a cell reference when cells are replicated or copied (FIXED) • Relative cell referencing – cell reference will change when cells are replicated or copied (CHANGES RELATIVE TO CELL ADDRESS)	**2**
7. (a)	**Award 1 mark for each** advantage and disadvantage. Any **two** advantages and **two** disadvantages from the following: **Biometric Methods** **Advantages** Unique Cannot forget or lose it <u>like a card</u> No-one else can register for you Real time registration/faster registration/saves time registering (Not 'saves time' by itself) **Disadvantages** Expensive scanners Privacy issues / misuse (DPA) Dirt causes problems Condone Unhygienic if the scanner is not cleaned regularly **Swipe cards** **Advantages** Can be used for many other school facilities – e.g. library, canteen and access to buildings Cost can be lower than other methods of registration Real time registration/faster registration/saves time registering (Not 'saves time' by itself) **Disadvantages** Can be lost easily Can be used by pupil's friends to swipe them in / truancy **General advantages** Reduces truancy Attendance figures worked out automatically Always know where pupils are Can study trends and patterns of attendance/ know if pupils are frequently late and absent Automatic SMS messages to parents **General Disadvantages** Reliance on system Staff training **Faster must be qualified as an advantage** **NOT '**expensive' by itself must be qualified.	**4**

7. (b)	**Award 1 mark for any one advantage and one disadvantage from the following:**	**2**
	One advantage from: Students can access the VLE from any device that has the Internet If students are absent they can catch up on missing work Saves paper – environment Learning can occur 24/7 *(Not '24/7' by itself must have a process Condone 'use 24/7')* Students can work at own pace Students can access help files / class blog/wiki/forum/messages for help Students can be more organised, e.g. checking timetables Can collaborate <u>online</u> Self-assessment Extended self-learning/independent learning	
	One disadvantage from: If pupils don't have a computer/internet connection, they cannot access from home (have and have-nots) Hackers altering test results Pupils unsure how to use system/lack of training/confidence Teacher not present if get stuck	
8.	**Award 1 mark for the correct response:** A (digital) camera used to capture still images and video images on the Internet/network. A camera used to collect/display moving images over the Internet/network. Real time camera. Video telephony.	**1**
	Not just a 'digital camera' Needs camera + internet/network/computer/live/realtime.	
	No brand names.	
	Any **one** from Use, Advantage and Disadvantage	**3**
	Use Online dating Viewing a place anywhere in the world Advertising, e.g. self-promotion (creating own videos for uploading to a video streaming website) Online interviews Monitoring a baby in a nursery Video calls/videoconferencing Online/real-time meetings Condone Playing computer games	
	Accept any reasonable answer Do not accept brand names such as 'skype' **NOT** Just "take photos" and "make videos" on its own – needs a purpose	
	Advantage Reduces isolation by interaction with friends and family in real time Can see who you are talking to Improves gaming experience in games which immerse player in environment Saves time/travel costs by talking to groups (teleconference) of friends simultaneously Cheaper /free telephone calls See body language	
	Disadvantage Poor <u>connection</u>/poor broadband <u>speed</u>/poor internet <u>connection</u> Need to set up the software Demands on memory May need to buy a more expensive / faster / newer computer Poor quality images Needs broadband Hacking – the webcam could be turned on without your knowledge Misuse of images captured - paedophiles	

Question	Answer	Max mark
9(a)	**Award 1 mark each x2** Email address Password **Date of flight** **No of passengers** **Name** **Tel No** **Card details** **Security code** **Any reasonable field related to booking a flight** **Type of verification** **Award 1 mark each x2** **Read before submit/proofread** **Double entry keying / Type it in twice** – *only award if they have given email or password in the list of fields*	**2x2**
9. (b)	**Award 1 mark for any four** advantages to the <u>customer</u> from: Avoids double booking Can book 24/7 Can choose seat from aeroplane plan/ e.g. extra leg room/aisle/bulkhead seat Loyalty scheme Compare prices Get cheap deals /On-line discounts / special offers Easier for <u>disabled</u> who don't have to leave home to book Read online reviews before booking Can check availability before booking Save on travel costs (must be qualified) Save travel <u>time</u> (must be qualified) e.g. rather than going to the travel agents to book Lower prices for booking in advance E-tickets/print tickets/tickets arrive instantly/tickets do not get lost in post Can get advanced notification and pre general release options Can set up <u>online quick buy accounts</u> so faster to buy tickets Automatically added to e-calendars Email notifications of changes to flight Can book on many devices. **NOT** just faster/faster to buy **NOT** just easy/'easier to book' **NOT** 'do not have to leave the comfort of your home'/'do it from home' must be qualified	**4**
9. (c)	**Award 1 mark for one disadvantage <u>to the customer</u>:** Pay extra charges Not everyone has internet access Online fraud/fake websites/credit card details can be stolen Lack of help/no-one to ask if confused **NOT** increased job losses **NOT** Printing **NOT** 'Hacking' unless qualified by stealing financial details.	**1**

Question	Answer	Max mark
10.	**Criteria Marked**	13

10-13 marks Candidates give a clear, coherent answer giving input devices of computer gaming and fully and accurately describing two health hazards and preventions and giving different advantages and disadvantages. They use appropriate terminology and accurate spelling, punctuation and grammar.

5-9 marks Candidates give some input devices of computer gaming describing health hazards and giving a few different advantages and disadvantages, but responses lack clarity. There are a few errors in spelling, punctuation and grammar.

1-4 marks Candidates simply give an input device, state a health hazard and may not give advantages or disadvantages. The response lacks clarity and there are significant errors in spelling, punctuation and grammar.

0 marks No valid response.

Guidance
Award 1 mark for each input device stated (Max 3)
Award 1 mark for each heal hazard, cause and matching prevention (Max 6)
Award 1 mark for describing advantages and disadvantages. (Max 4)

Indicative content

Input Devices **Input: (1 mark for each device X3)**	Joystick Control pad / games controller Steering wheel Keyboard Mouse Microphone Camera / webcam Virtual reality devices Movement sensor Optical drive / cartridge slot Touchscreen Secondary device (e.g. docked phone) Step pad Any control devices accepted **NOT** games console **NOT** headset	
Health Hazards Needs the problem and Need the cause X 2 Matching Prevention X 2 **(Preventions must be different)** **If list two health hazards but no corresponding cause then max 1 mark**	Eye strain – from staring at monitor for too long (ONLY accept eye strain) RSI – Continuously pressing games controller Backache – Staying in the same position Addiction – can't stop playing the game / effects school work / social isolation Headaches – screen is too bright Photo sensitive epilepsy Neck strain – for keeping your neck in the same position for too long	Take regular breaks Focus on distant object Ergonomic controllers/ keyboards Regular exercise Wrist and feet support Use an adjustable chair (**NOT** comfortable or suitable chair) Take regular breaks Take regular breaks/ Parental monitoring Take regular breaks Screen filters Have eyes at the same level as monitor Use adjustable chairs Adjust monitor height/ screen at suitable angle

		Advantages and Disadvantages Any six advantages and disadvantages **For Max marks need to give at least one advantage and one disadvantage** **Any advantages from:**	 Educational/ Learning tools / Make learning enjoyable Encourage teamwork / collaboration Can increase hand/eye coordination Improves problem solving ability Can make friends all round the world Fun, entertaining Encourages young children to go into a game related career, e.g. Developer/ Designer To keep fit Improve reaction time Allows you to experience something you wouldn't normally do, e.g. driving/racing cars Free online games	8	
		Any disadvantages from:	Social isolation Violent games Cyberbullying Waste time / school work suffers Initial set up cost **Condone:** Chatting to people you do not know could be a danger? Addiction- if not used as a health risk **NOT** other health hazards		
			TOTAL	**80**	