GCSE EXAMINERS' REPORTS

GCSE (LEGACY)
ICT

SUMMER 2022

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Annual Statistical Report

The annual Statistical Report (issued in the second half of the Autumn Term) gives overall outcomes of all examinations administered by WJEC.

ICT

GCSE

Summer 2022

Unit 1: Understanding ICT

General Comments

There was a significant reduction in the number of entries for this unit as it was not part of the full course GCSE ICT qualification due to the COVID-19 pandemic. This unit was only used towards the GCSE ICT short course qualification. The database question that usually appears was removed from this paper making the maximum mark 72 instead of the usual 80. Statistical information shows that it has similar accessibility to the 2019 Summer paper.

Comments on individual questions/sections

Q.1 **(a)** The question was attempted by all candidates and well answered by all candidates.

(b) The question was attempted by all candidates and well answered by all candidates.

(c) This question was attempted by all candidates and well answered by the majority of candidates.

(d) The question was attempted by all candidates and well answered by all candidates.

(e) This question was attempted by all candidates and well answered by the majority of candidates. Candidates lost marks by giving answers that included different applications such as spreadsheet and database responses rather than DTP.

Q.2 This question was correctly answered by almost all candidates with most candidates gaining the maximum marks available. The tick box format ensured this question was accessible to all candidates. Marks were mainly lost due to candidates incorrectly stating that "The History classroom is 109m^{2}" was knowledge instead of information.

Q.3 Extremely well answered by most candidates and the majority of candidates showed good knowledge and understanding of the 802.11 protocol. Accessible to all candidates due to the tick box format.

Q.4 **(a)** The question was fairly well answered by the majority of candidates.

(b) This question was well answered by all candidates.

Q.4 **(c)** This was a strengthened spec topic and was poorly answered by all candidates and all candidates showed poor knowledge of email address spoofing. Many incorrect answers seen included responses relating to phishing.

Q5. **(a)** Extremely well answered by all candidates.

(b) Extremely well answered by all candidates.

(c) This question was well answered by all candidates.

(d) Fairly well answered by many candidates.

(e) This question was answered correctly by few candidates.

(f) Poorly answered by most candidates due to candidates referencing the wrong cell and leaving out the correct syntax – speech marks, commas and brackets.

(g) This question was fairly well answered by the majority of candidates with many candidates able to achieve at least one mark out of the two available.

Q.6 Most candidates answered this question fairly well. Marks were lost where candidates repeated preventions.

Q.7 **(a)** Fairly well answered by some candidates.

(b) Poorly answered by the majority of candidates. Incorrect answers related to online learning and the use of tablets to enhance teaching and learning. Some fantastic answers were seen that include responses relating to the use of drones for Physical Education lessons and virtual reality to see the planets in science lessons.

Q.8 **(a)** Well answered by the majority of candidates.

(b) Fairly well answered. Many candidates were able to give at least two advantages and one disadvantage of booking cinema tickets online.

Q.9 Well answered by some candidates. Most candidates gained marks for the advantages of a smart meter and not for the sensor or output device. Many confused a smart meter with an electric or gas pre-payment meter.

Q.10 **(a)** This question was answered fairly well by most candidates.

(b) This question was answered fairly well by some candidates with marks being lost for responses that didn't relate to home entertainment. Candidates did answer the danger and matching prevention part well. Popular correct answers included the webcam being hacked without the user's knowledge and to prevent this cover the webcam when using the device.

Q.11 Many responses were extremely impressive and well above the required GCSE standard. There were some very good planning techniques and well laid out written responses seen on this extended writing question. Candidates who had studied AR and VR answered this question extremely well. These candidates were able to give devices associated with AR and VR and describe some advantages. Popular correct answers included advantages such as allowing users the chance to gain an immersive, real-life experience of something they normally wouldn't be able to access and addiction being a disadvantage of gaming.

Summary of key points

- The older topics were answered well, however some of the new topics from the strengthened spec were poorly answered.
- The tick box format for certain questions ensured accessibility to all candidates.
- Some candidates are not reading questions correctly and giving answers excluded by the question.

ICT

GCSE (NEW)

Summer 2022

Unit 2: Solving Problems with ICT

General Comments

Centres are to be commended for the presentation of their evidence of candidates' work. Most centres provided the candidates' evidence in one PDF document and this made the moderation process more straightforward. Thank you.

Most centres have a good understanding of the requirements of the controlled test and most assessed accurately.

Those centres that used the one sheet marking grid were generally more accurate and moderators could clearly see where marks had been awarded.

Comments on individual questions/sections

<u>FILE HANDLING</u>

Given the difficult circumstance of the previous year, the evidence provided was well done.

Most centres provided good evidence, but some areas need highlighting.

- Demonstrate careful version management: this applies to the several files not including the draft and final DTP / presentation documents they are already required to do.
- There should be evidence of two different folder operations e.g. copy, move

<u>RESEARCH AND DATA COLLECTION</u>

Again, most centres now have a very good understanding of the evidence required in this section.

Things to note:
- URL search **showing the keyword search box empty** and typing the URL address directly into the address bar. This is generally misunderstood with screen shots of pages of links.

- Blank questionnaires should not be awarded marks. Questionnaires must be filled in to show they had acquired information.

<u>EMAIL</u>

Evidence has greatly improved, and screenshot evidence was generally very clear.

Things to note:
- The mark for using a contacts list is not for selecting a contact.   It is for using a contacts list to add and amend and delete entries. All three must be evidenced.

- Attachments must be opened.

COMMUNICATING INFORMATION

Formative evaluation: (8 marks)

Centres should encourage candidates to provide more detailed and relevant comments to improve their work.

Many comments were too general and would do little to help the candidate improve their individual mark e.g. add more pictures, use bigger text.

Drafts and final documents

Although assessment was generally accurate it is still worth noting that marks can only be awarded if the feature appears on the final document.

Evidence could be strengthened for;
- insert, crop or resize and position an image fit for purpose needs a before and after screenshot and it would be helpful if these could be annotated by the candidate;
- on a web page or in a presentation, sequence a set of events needs a screenshot showing the selected custom animation if submitted on paper;
- rotation of images.

MODELLING

Some candidates did a Profit and Loss spreadsheet instead of the required Break-Even Analysis.

What if investigations

This is still a major problem area. These are some of the most disagreed two marks in the test.

What if investigations need to have a reason for undertaking them and a conclusion.

Candidates are required to say why they are changing the data i.e. why is there a price change? If the candidate does not give a reason why they have change the data then they should not get a mark. In addition to qualify for this mark they must show and describe the impact/ knock on effect of the changes they have made.

Some candidates just say *'what if I change this data'?* Another wrong approach is *'I predict the total will go up if I change the price'*.

Advanced features

The evidence provided was generally well done except for the following areas.
- Evidence of headers and footers
- The code for the macro should be included in their evidence.

DATA HANDLING

Basic features
This was generally accurately marked

Advanced features
The following should have reasons why the data produced in this form.

- use logical operators / wild card/parameter search must have a reason why the output is required
- sort on multiple fields must have a reason why the output is required

If there are no stated reasons for the search or sort, no marks should be given.

Calculations must be shown in design view so the formula can be seen.

EVALUATION

The marks for the formative evaluation earlier (8 marks) are added to the seven marks for the summative evaluation on the banded IT2 form.

Summative evaluation (7 marks)

The marking of this section has improved but some centres still give marks for what is effectively a list of what they have done, rather than a critical evaluation.
Candidates are expected to write a critical evaluation on each of the following not just make one brief comment on each.

The summative evaluation should cover all of the following;
- analysis of data and information used in modelling (*Data/formulas graphs*)
- analysis of data and information used in data handling *(Keyfield. extra fields+ data validation)*
- concrete suggestions for improvements *(modelling and data handling)*
- evaluation of other tools + techniques *(all tasks: Final choice of DTP features/ investigations/ sorts/ searches / etc)*
- review of feedback *(Just a statement saying they considered improvement)*
- analysis of research methods/ data collected/data used (Internet/ paper sources/email)
- evaluation of working practice *(data protection/security/health and safety).*

Summary of key points

Contained within comments on individual questions/section (as above)

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Unit 3: ICT in Organisations

General Comments

- Candidates generally did well to attempt all questions. Q9 was well attempted and Q10 had some excellent answers.
- Over 99% of candidates attempted to answer at least 5 of the questions.
- Q5 had the lowest facility factor. This was due to a high number of candidates discussing robotics and not AI.

Comments on individual questions/sections

Q.1 **(a)** Almost all candidates attempted this question and most did well.

(b) Almost all candidates attempted this question and most did well.

(c) Almost all candidates attempted this question. Some candidates would benefit from reading the question more closely and realising that the question required devices not named above that were used for both input and output.

Q.2 **(a)** Very well answered.

(b) Well answered with most candidates showing an understanding of the file size and the advantage of stretching the image with no loss of quality.

(c) Generally well answered. A list of tools is available in the mark scheme; however, this list is not exhaustive

(d) Not well answered. A lot of candidates stated "file size" which is incorrect.

Q.3 **(a)** Well answered.

(b) (i)&(ii) Not well answered. Some candidates gave vague responses that were not worthy of credit.

Q.4 **(a)** Answered correctly by about half of candidates. Some candidates gave "to ensure data is correct" which is incorrect.

(b) Most candidates chose to tick one as correct and one for incorrect and therefore gained one mark.

(c) Only a minority of candidates were able to show an understanding that batch totals use meaningful data and hash totals use meaningless data.

Q.5 **(a)** The majority of the candidates did struggle on this question. Some candidates discussed robots instead of AI.

(b) As above, a number of candidates were discussion robots instead of AI.

(c) Generally well answered. A number of candidates discussing how AI will become more powerful than people.

Q.6 **(a)** Well answered.

(b) Generally well answered.

(c) Surprisingly hit and miss considering that that candidates were able to choose which animation technique to choose from.

Q.7 **(a)** Hit and miss. A high number of candidates stated "working from home" but did not state using technology in any way.

(b) Although part (a) wasn't well answered, most candidates were able to gain some credit for their response to this question.

(c) Although part (a) wasn't well answered, most candidates were able to gain some credit for their response to this question.

Q.8 **(a)** A number of candidates didn't attempt this question. Generally well answered. Most candidates were able to attain 2 marks.

(b) Generally well answered.

Q.9 **(a)** Most candidates attempted this question and most gained some marks.

(b) Most candidates who attempted this question were able to give the advantages but only a minority were able to clearly list the disadvantages.

Q.10 **(a)** Generally well answered by the majority of candidates who attempted the question. Most candidates could list three topologies and give some advantages and disadvantages.

Summary of key points

- Some candidates would benefit from learning what are standard graphic tools.
- Candidates would benefit from being more precise with their answers for Phishing and Ransomware.
- Candidates would benefit from working through examples with hash and batch totals.
- Some candidates would benefit from further understanding the difference between AI and robots.

ICT

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Unit 4: Developing Multimedia ICT Solutions

General Comments

The presentation of the evidence reflected the difficult circumstances many centres faced.

Centres are required to upload (to the Surpass system), one PDF document containing all the required evidence. Some centres loaded all of the candidates folders relating to the test. centres should ensure that only relevant information is included in the candidates evidence.

The PDF report containing screenshots of features is essential and should provide sufficient evidence of features used and should also contain screenshots of all slides / pages of their final presentation or website. Some candidates only gave a shortcut to the website, presentation or animation which was stored on the school server and hence could not be accessed by the moderator. Some candidates final websites could not actually be opened or seen because of the software used to produce them.

Centres should ensure features awarded marks are embedded in their presentations etc.

Comments on individual questions/sections

ORGANISATION OF FOLDERS AND FILES

Where evidence was provided this was generally well done.

Some candidates did not provide any screenshot evidence and moderators had to hunt through folders to try to support the marks the Centre had awarded.

RESEARCH AND DESIGN

Analysis of websites

Describe the target audience of each.

Again, this was generally well done.
Compare and contrast multimedia or web features.

This can be a major issue for centres that lose marks.
If they had not labelled the multimedia or navigation features, then they should not be awarded up to four marks. Having identified the features, for maximum marks, they had to compare four similarities and four differences between the features on the websites.

Candidates <u>must label</u> the multimedia features on the two chosen websites. Candidates should clearly identify them on the website by drawing an arrow to them **not** just listing them as a set of bullet points. Alternatively, some candidates set up a table and had pupils copy and paste a screenshot of the feature into the table and label it.

- Candidates should not identify DTP features/data/ pictures/logos for this section.

- Candidates should identify multimedia e.g. flash animation/movies/podcasts etc or web features hyperlinks/hotspots/shopping trolleys etc.

Identify file type and file size of two different features on the websites.

The evidence provided was much improved but note that there needed to be two different file types - not 2 jpegs.

Design of individual presentation or web page

Most candidates achieved these marks.
No design marks can be given for an implemented system i.e. it cannot be inherent.
An implemented master slide is not design.

Candidates were expected to write a paragraph about the purpose of their web page or presentation. This should include purpose and target audience.

Candidates are expected to explain how or why their solution is fit for purpose and audience. They should give an outline describe the content of each slide or web page.

e.g.
    Page/slide 1 contains information on…
    Page/slide 2 contains information on…
    Etc. for 6 pages or slides.

Moodboards must consist of at least two out of the three of – images/ colour schemes / fonts.

IMPLEMENTATION

Only features present on the webpages or presentation should be awarded marks.

Template and presentation

Candidates are required to:

- Create an <u>original</u> master page or master slide with navigation features. They should not use a library of templates.

- Enter <u>text fit for purpose</u> on each slide or web page (to a max of 6).

    Some centres gave marks when there was no suitable text on the page only pictures.

Graphics

Tools and techniques were generally well evidenced.

Consider compression choices for both.
This is not just saving the file. It is not showing a folder with different saved formats of their image. There must be a discussion of the merits of at least two compression techniques and a justification of their chosen technique.

Some candidates only produce one image built up from a simple one. This is still one image and therefore should not be awarded two marks.

Animation

This is using external animation software to produce an original animation. An animation or animated movie is not using still photographs to make an animation. An animated movie is not dropping the whole PowerPoint presentation into a movie package.

It must be separate and have a distinct purpose.
Candidates are required to:

- Create a detailed storyboard for a first original animation with timings.
  This is not an implemented system and there should be no screenshots of their animation. They should add potential timings/frame rate for the second mark.

- Create **the first** original animation and provide evidence of features used to create it.

- Outline their chosen timings and frame rate.

- Create a second different animated banner. The first animation cannot count as both.

Advanced features

Complex animations require complex movement.

- In the basic features there is a background which does not move.

- In the advanced features the background moves as well as the animation in front of it.

- Complex layering means there are animations on top of animations not still backgrounds on top of still backgrounds.

- Complex looping means individual items in an animation have a different looping cycle and not just the basic looping of replaying the whole animation in a loop.

Sound

This was generally done very well.

ADVANCED FEATURES

With the exception of advanced animation this was generally well evidenced.

EVALUATION

Teacher comments would be useful in describing where they awarded the marks.
However, most centres are more realistic in their assessment.
Some evaluations are still just a running commentary of what they did or what then used.
However critical review and a discussion of hosting is still poor.

Evaluations should be a critical analysis of the good points and weak points in their solutions. They should suggest concrete future developments, not just say add more pictures, add a video, add another animation etc.

Again, some candidates were given full marks when some of the main sections were not covered e.g. how to publish/host their presentation or website to the web. They tend to talk only about compression.

Summary of key points

Contained within comments on individual questions/section (as above)