Grade boundary information for this subject is available on the WJEC public website at: https://www.wjecservices.co.uk/MarkToUMS/default.aspx?l=en

**Online results analysis**

WJEC provides information to examination centres via the WJEC secure website. This is restricted to centre staff only. Access is granted to centre staff by the Examinations Officer at the centre.

**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.
Comments on individual questions

Q1. (a) This question was mostly well answered by candidates and many gave three correct features of Desktop Publishing software that could have improved the poster. Some candidates repeated features that were already evident in the poster and therefore lost marks. Candidates understand the format of this question as it has appeared on past papers.

(b) This question was well answered by all candidates. A few incorrect answers included “Spell check” and “Dictionary”.

(c) This question was not well answered by candidates. Most candidates were able to gain marks for stating two types of software; however correct examples of use were not always given with many candidates simply repeating the question – “To promote the book club”. Candidates also lost marks for giving email and DTP software as answers when they had both been excluded in the question.

(d) This question was mostly well answered by candidates. Many candidates were able to describe both carbon copy and blind carbon copy.

Q2. (a) This question was very well answered by all candidates and very good knowledge of broadband was evident. The tick box format made the question extremely accessible to all candidates.

(b) Most candidates found this question very accessible and were able to give both an advantage and disadvantage of downloading music. Popular answers included “Being able to choose individual tracks rather than buying the whole album” as an advantage and “Viruses can be introduced” as a disadvantage.

Q3. Extremely well answered by all candidates.

Q4. (a) Most candidates found this question accessible due to the tick box format, however it was not well answered. Many candidates incorrectly selected voice recognition software as one of the three input devices to support students with disabilities and therefore marks were lost.

(b) (i) This question was well answered by most candidates with many candidates achieving at least two of the three marks allocated. Marks were lost by a significant amount of candidates as they were confusing advantages with the uses of a VLE.
(b) (ii) This question was poorly answered by most candidates with the incorrect answer of being expensive to set up being quite popular.

(c) Candidates were mostly able to achieve at least two marks on this question and good knowledge of advantages of online tutorials was shown.

Q5. (a) Very well answered by all candidates – May was correctly identified by almost all candidates as being the data in cell A6.

(b) Many candidates answered this question correctly identifying B as the formula used to calculate the Total Costs.

(c) Extremely well answered by most candidates.

(d) Well answered by some candidates. A definite improvement on previous answers to IF statement questions.

(e) Many candidates who attempted the question achieved at least one mark for stating a suitable What IF investigation, however the second mark was not always achieved due to candidates not stating the result of the investigation. An example of this is candidates would give a one mark answer such as “What if the income for May increased to £7,000 – the likelihood is that the balance would change.” A more specific answer stating the exact changes to the spreadsheet would have achieved the full 2 marks.

Q6. (a) Most candidates could state how many records were shown in the database.

(b) Well answered – almost all candidates were able to correctly state that two candidates would be found with the search for drama as the favourite genre.

(c) Very well answered by candidates.

(d) Fairly well answered with almost all candidates able to state the problem with the database. Many candidates achieved at least two marks here with marks being lost for either not stating the range for the drop down list or range check or by giving a totally unsuitable validation technique. Some candidates gained no marks as they were discussing verification methods.

(e) Well answered on the whole, however marks were lost due to candidates giving the name rather than Student ID as an answer.

(f) Well answered and most candidates achieved at least one of the two available marks here. Marks were lost for saving storage space as some candidates simply gave “Saves space”. Popular answers included the ability to easily edit and update records and the ease of backing up data.

Q7. (a) Extremely poorly answered by most candidates. Candidates did not always describe an actual use for the sensor and many were simply repeating the sensor in their answer. E.g. A humidity sensor to measure the humidity.

(b) Well answered by most candidates with most candidates able to give at least one advantage and one disadvantage of data logging.
Q8.  
(a) Extremely accessible to all candidates and very well answered by most candidates.

(b) Well answered by the majority of candidates although some candidates were giving disadvantages to the customer rather than to the business and therefore marks were lost.

(c) Well answered. Popular answers included the use of firewalls, passwords and the use of encryption.

Q9.  
(a) Well answered by many candidates although some marks were lost as a significant amount of candidates confused advantages with the uses of social networking.

(b) Surprisingly poorly answered by many candidates. Marks were lost where candidates gave uses of social networking rather than advantages. Candidates also gave bullet pointed lists and didn't actually state which were advantages and which were disadvantages.

Q10. The responses for this question were impressive and sometimes well above the GCSE standard. There were some excellent answers and many candidates used the correct terminology and gave few spelling, grammar and punctuation errors. However, surprisingly few candidates attempted this question.

This question was well answered by most candidates. Candidates could easily give three other items of data required when completing an online booking form and the advantages and disadvantages of booking tickets online were well answered too. Popular answers for advantages and disadvantages of online booking included “The ability to book tickets 24/7” and a disadvantage of not having Internet access.

A minority of candidates sometimes lost marks by answering parts of the question incorrectly such as giving personal details and the date and time of the concert for required items of data and these answers were excluded in the question. A few candidates gave validation techniques rather than the required verification methods. Some marks were lost by not giving the required number of advantages and disadvantages and therefore being unable to gain the full mark allocation.
Q.1 Very well answered. Most candidates were able to identify input only devices. Most candidates noticed there were 5 marks for the question and ticked 5 boxes. Some ticked more and lost marks.

Q.2 (a) (i) Few candidates were able to describe the use of keyword searches on a webpage accurately.

(ii) Many candidates were able to name features of multimedia software, however some candidates named a “multimedia software package” and not the features available within the software. Candidates were not awarded a second mark if they used the same example more than once.

(b) Many candidates were able to give a disadvantage of using multimedia software on a website, the majority of these stating the large file sizes taking a long time to load.

Q.3 (a) Most candidates were able to identify a star and bus/line network.

(b) Many candidates were able to identify where “switch” and “packet” fitted in to the sentences, but most candidates were not able to identify where the other network devices fitted in.

(c) Few candidates were able to state what was meant by the terms Intranet and Extranet.

Q.4 (a) Most candidates were able to identify which statement identified the Composite patterning, Gradient and Layering tools.

(b) This was well answered. Most candidates were able to state that a bitmap graphic is made up of pixels.

(c) Most candidates were able to gain 1 mark for their description, usually stating that a vector is a graphic expressed mathematically. Few candidates were able to gain the second mark showing further knowledge.

(d) Generally answered well. Many candidates gained at least one mark, the majority stating smaller file sizes or faster to download/upload speeds.

(e) This part of the question was answered poorly. Some candidates named software packages instead of graphic file formats. Few candidates were able to name two graphic file formats and give an advantage and disadvantage for each.
Q.5  (a) Many candidates were able to state that the HCI shown was a Graphical User Interface (GUI).

(b) Many candidates then generally stated features from Windows, Icons, Menus, Pointers (WIMP).

Q.6  (a) Some candidates had difficulty in answering this question. The issue that some candidates had was that they failed to state that an operating system is “software/program”.

(b) Quite well answered. Many pupils were able to note the functions of an operating system. Common incorrect answers came from candidates that confused the functions of an operating system with the advantages of robotics.

(c) Quite well answered. Candidates could usually decipher which example corresponded with which processing method.

Q.7  (a) Few candidates were able to state that the application for processing the timesheets for workers at the end of each month was a payroll application.

(b) Fewer candidates attempted question 7 than any other. Very few were able to identify a common data item between the master file and transaction file. Some candidates were able to identify fields in the master file, but few could do so for the transaction file.

Q.8  (a) This question was answered poorly. Few students were able to state what was meant by the term bionics, applying biology to the study and design of robotics.

(b) Many candidates were able to show an understanding of the advantages of robotics. Where candidates failed to gain marks, it was generally down to answers where they did not justify answers such as “robots don’t need paying”.

(c) Many candidates were able to show an understanding of the disadvantages of robotics. Where candidates failed to gain marks, it was generally down to answers where they did not justify answers such as “robots break”.

(d) Few candidates were able to state what is meant by the term artificial intelligence. Some candidates were able to state that machines with artificial intelligence were able to learn.

Q.9  (a) Many candidates were able to tick the correct box to show which statement corresponded with the correct Act.

(b) Very few candidates were able to show any understanding of the Regulation of Investigatory Powers Act of 2000, but those that did, could generally state that it involved surveillance and the interception of communications.

(c) This question was generally answered well. The majority of candidates that answered this question incorrectly did so because they repeated preventative measure that involved those given as examples in the question.
Q.10 A minority of candidates fully addressed the question, appropriately describing in detail four different types of animation techniques. Many candidates were able to name the animation techniques, but not describe them. Popular answers given included tweening, rotoscoping, onion skinning and stop motion. A minority of candidates answered the question incorrectly by naming and describing graphic editing tools. Most candidates used the correct terminology when answering the question and used accurate spelling, punctuation and grammar.