Specific marking instructions

Task	Expected response	Additional guidance	Marks available	Marks awarded	Commentary on allocation of marks	
1	**Database design and development — part A**					
1a	One mark for identifying: ♦ employee number One mark for identifying: ♦ first name ♦ surname ♦ address (or street, town) ♦ telephone number ♦ driving licence	Must identify all five attributes	2	**1**	**The candidate was awarded 1 mark for correctly identifying five employee attributes.** The candidate could have been awarded 1 further mark if they had identified the primary key required to link the two tables.	Analysis (2)
1b	One mark for completion of each row: ♦ serialNumber — PK ♦ timeCompleted — time ♦ model — restricted choice: Jazz8, Rock100 and Blues55 ♦ testPassed — Boolean ♦ employeeNumber — FK	No marks awarded for application specific field types in "Type" column (for example date/time, yes/no) Restricted choice must list all three choices	5	**4**	**The candidate was awarded 4 marks for completing the data dictionary correctly with the exception of the model bullet point.** The candidate could have been awarded 1 further mark if they had noted the list of choices in the restricted choice, validation box.	Design (5)

Task	Expected response	Additional guidance	Marks available	Marks awarded	Commentary on allocation of marks	
1	**Database design and development – part B**					
1c	One mark each for: ♦ all fields created with correct data types ♦ primary key (serialNumber) ♦ presence check on every field ♦ restricted choice on model, with correct three options ♦ length check = 10 characters on serialNumber ♦ linked table enforcing referential integrity	Fields required: ♦ serialNumber – text ♦ dateBuilt – date ♦ timeCompleted – time ♦ model – text ♦ testPassed – Boolean ♦ employeeNumber – FK	6	**3**	**The candidate was awarded 3 marks for:** ♦ **all fields created with correct data types** ♦ **primary key (serialNumber)** ♦ **restricted choice on model, with correct three options** This was the maximum number of marks that could be awarded as the candidate did not provide evidence of: ♦ presence check on every field (not required on Boolean, PK) – some fields are shown in the Database Documenter as "Required: False" ♦ length check = 10 characters on serialNumber — The evidence shows that the candidate set a maximum field length of 10 but does not show length must equal 10 ♦ Linked table enforcing referential integrity — Relationships evidence, page 4 of Documenter evidence, show "*Attributes: Not enforced"*	Implementation (8)
1d	One mark each for: ♦ INSERT INTO Employee ♦ correct data, in correct order	Sample answer: INSERT INTO Employee VALUES (1599, 'Jeremy', 'May', '67 Red Lane', '07923782534',true);	2	**2**	**The candidate was awarded 2 marks because the evidence shows that the SQL statement was written correctly.** Please note that as every field has been given a value the candidate may or may not include field names.	

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2	**Software design and development**					
2a	Array used in program		1	**0**	The candidate was awarded **0 marks** because they did not follow the design (where all six values are input and stored before the total was calculated) implementing a running total within a single loop and without using an array.	Implementation (15)
	Use of the following variables: ♦ total hits ♦ average ♦ points	Variable names may differ in code All three variables are required for 1 mark	1	**1**	**The candidate was awarded 1 mark because they stored all three values using variables:** ♦ **total** ♦ **average** ♦ **points**	
	Fixed loop repeating six times (to enter player hits)		1	**1**	**The candidate was awarded 1 mark because their Python code has a fixed loop repeating six times "*range (1,7)".***	
	Input validation — conditional loop used		1	**1**	**The candidate was awarded 1 mark. While loop used to re-enter value if not valid.**	
	Input validation — correct loop condition	hits >= 0 and hits <= 30	1	**1**	**The candidate was awarded 1 mark. Conditions correct for while loop (hits <0 or hits >30).**	
	Input validation — input of player hits	Award 1 mark if not implemented within input validation loop	1	**1**	**The candidate was awarded 1 mark. Second input inside loop demonstrates re-entry of invalid value.**	
	Input validation — error message		1	**1**	**The candidate was awarded 1 mark. The print statement is inside while loop meaning the error message will only be displayed if an invalid value is entered by the user.**	
	Running total calculated correctly		1	**1**	**The candidate was awarded 1 mark. Running total inside loop with input.**	

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2	**Software design and development**				
	Round function used with average		1	**1**	**The candidate was awarded 1 mark. Round function used with average correctly.**
	Calculation of bonus points: ♦ for 1 bonus point ♦ for an additional bonus point		2	**2**	**The candidate was awarded 2 marks.** **Correct condition to calculate first bonus point (total > 50) followed by correct addition of point (points = points + 1)** **Correct condition for additional bonus point (average >= 10) followed by correct addition of point (points = points + 1)**
	Selection (if) used to display message showing 1 bonus point earned	(totalHits > 50) Output must be within selection	1	**1**	**The candidate was awarded 1 mark because they implemented an appropriate print statement within the correct conditional statement.**
	Selection (if) used to display message showing additional bonus point earned	(average >= 10) Output must be within selection	1	**1**	**The candidate was awarded 1 mark because the print statement is contained within the correct conditional statement.**
	Selection (if) used to display message showing 0 bonus points earned	(totalHits < 50) Output must be within selection	1	**1**	**The candidate was awarded 1 mark because the print statement is contained within the correct conditional statement.** Please note that the candidate has correctly identified an alternative condition that could be used to display the message.

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2	**Software design and development**					
	Matches design – same sequence of events as flow chart		1	**0**	The candidate was awarded **0 marks** because they have deviated from the supplied design in the following places: ♦ two separate loops should have been implemented to get 6 valid hits and then calculate the total ♦ the number of bonus points should have been calculated before the message was displayed ♦ the conditions used to display the messages were different from the design.	
2b	Both test tables completed to produce the required output (1 bonus point or 2)	Table 1 hits should total 51-59 Table 2 hits should total >=60	1	**1**	**The candidate was awarded 1 mark.** **Test table 1: total = 52** **Six values correctly total between 51 and 59** **Test table 2: total = 60** **Six values correctly total greater than or equal to 60**	Testing (5)
	Printed evidence of successful run of test data in table 1	Both inputs and outputs should be printed	1	**1**	**The candidate was awarded 1 mark. The evidence shows six values from test table 1 entered by the user and correct output message showing that one bonus point has been earned.**	
	Printed evidence of successful run of test data in table 2	Both inputs and outputs should be printed	1	**1**	**The candidate was awarded 1 mark. The evidence shows six values from test table 2 entered by the user and the correct output message showing**	

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2	Software design and development					
					that one bonus point and one additional bonus point has been earned.	

2c	Completion of test data for input validation of player's hits for 1 mark each: ♦ extreme: 0 and 30 ♦ exceptional: any suitable, eg 1, 31	Only accept numerical answers for exceptional test data	2	**2**	**The candidate was awarded 2 marks because they correctly answered all three.**	
2d	Evaluation of the following for 1 mark each: ♦ whether the program is fit for purpose, including explanation of code ♦ efficient use of coding constructs ♦ how robust the program is, including if it copes with unexpected inputs Evaluation of the following for 2 marks: ♦ readability – 1 mark for each comment on the readability of the candidate's own code	Efficiency answers may refer to: ♦ two loops not required for inputs and running total ♦ complex selection structure could have been used in place of three "ifs" ♦ array used instead of six variables for hits ♦ single variable only required for hits if implemented in one loop (as per bullet point 1)	5	**2**	Fitness for purpose: **The candidate was awarded 1 mark because they related their answer back to the problem.** Please note it is not enough to state "the program does what it is supposed to". Efficiency of your code: The candidate's answer is too vague to gain a mark as they neither discuss how they made their own program more efficient than the design or state how they could have made their code more efficient. Robustness of your completed program: **The candidate was awarded 1 mark for correctly evaluating a robustness issue within their own code**. Readability of your code: The candidate was not awarded a mark for stating white space as this is not an evaluation of their own code.	Evaluation (5)

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3	**Web design and development**					
3a	End-user requirements could include the following for 1 mark: ♦ view the winning pupil's photograph ♦ play the winning pupil's interview		1	**0**	The candidate was awarded **0 marks** because they incorrectly identified that there is a need to upload the students photo.	Analysis (3)
	Functional requirements could include two of the following for 1 mark each: ♦ must be able to play sound ♦ must be able to display the photograph ♦ must be able to display the text		2	**2**	**The candidate was awarded 2 marks because they correctly identified the 2nd and 3rd bullet points.**	

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3	**Web design and development**					

3b	Using the printout of the HTML file, confirm the following for 1 mark each:
	
	♦ all text and graphics content added (within structural head, title, body, tags, p, H1, div, etc)
	♦ audio tag used
	♦ link to external CSS file added in <head> section
	
	Using the printout of the CSS file, confirm the following for one mark each:
	
	♦ School Name Text styled correctly
	♦ Month and Pupil's Name styled using a single CSS rule
	♦ graphic size correct (CSS or HTML)
	♦ background colour changed (CSS or HTML)
		Text and graphics checklist:
		
		♦ School Name
		♦ Month
		♦ Pupil's Photo
		♦ Pupil's Name
		
		CSS for School Name Text
		`h1 { font-size: 16px;`
		`font-family: "Tahoma";`
		`text-align: center;`
		`}`
		
		CSS for Month/Pupil's Name Text:
		`h2 { font-size: 14px;`
		`font-family: "Tahoma";`
		`text-color: white;`
		`}`
		
		CSS for <img> tag
		Internal style:
		`style="width:200px;`
		`height:250px;"`
		
		External stylesheet:
			7	**5**	**HTML File**
					The candidate was awarded 3 marks because they successfully implemented all three bullet points.
					
					1st bullet: Although there is no closing </html> tag the candidate's code would still display correctly. It would be unreasonable in this example for the candidate to lose a mark for such a small error when the rest of their code is correctly within tags.
					
					3rd bullet: Although the candidate's styles are mostly in-line they have still implemented the link correctly.
					
					CSS File
					Candidate is awarded 2 marks for the following bullet points:
					♦ **graphic size correct (CSS or HTML)**
					♦ **background colour changed (CSS or HTML)**
					
					1st bullet: No marks awarded here because the candidate used the wrong font in their style.
					
					2nd bullet: No marks awarded here because the candidate did not implement this style externally and therefore hasn't used a single rule.
						Implementation (7)

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3	**Web design and development**				

		`img { width:200px; height:250px;}`
		
		CSS for page background internal style:
		`<body style="background-color:blue;"`
		
		External stylesheet:
		`body {background-color:blue; }`			