

2019 September Moderation - Report



Meeting Details

AM or PM session?

AM

Which meeting is this report for?

Technologies - Electronics Level 3

Moderation Details for Calibration - Sample 1

Sample 1 - Please identify each criterion being moderated and IF SELECTED the elements within that criterion

Criterion 1 = Overall
Criterion 6 = Overall

Sample 1 - What rating (or ratings) has the group assigned this sample?

C1 = B, C6 = C+

Sample 1 - What evidence supports the rating (or ratings) the group has given?

There was a mismatch between diagram and what student said was breadboarded and worked.

Student did plenty of tests, but failed to identify causes of some of the more obvious mistakes in design.

The student placed a switch in the circuit, but didn't realise that the chosen location created a short circuit across the battery, so there was no way the circuit would work.

There was no explanation of the role of the capacitor in the timing circuit.

Components had been removed from the circuit, but no reasons were given, nor any explanation of the function of those components. Inclusion of this information may have alerted the student to the resulting errors in the circuit.

There was little evidence to suggest that the proposed solution had been simulated in Circuit Wizard nor breadboarded - again, these actions would have shown the student that there were some basic errors in the design (short across the battery, effect of removing the transistor)

Sample 1 - What evidence would you

Changes: IPO diagram should have human inputs (not power supply)

need to see in order to assign a higher rating (or ratings)?

Examine the consequences of removing the transistor, and adding the 100R resistor.

Discuss role of capacitors in the timing circuit.

Some evidence that the circuit had been tested via computer simulation or physically breadboarding it.

Sample 1 - Summary of group consensus with comments to element level if applicable.

C1: There was no information regarding the testing procedure - what equipment was used? What tests were performed?

C6: Whilst at first glance, the presentation of the sample suggested a higher result, closer inspection of the schematics revealed anomalies which suggested that the student hadn't actually built and tested the circuit. The written report also indicated some gaps in the depth and knowledge of the operation/function of certain components.

Sample 1 - What actions would you recommend for teachers to help the student attain a higher rating (or ratings)?

Suggested Preparation of an assessment rubric with performance indicators to give clearer understanding of the task. Checklist that students can tick off as they meet each requirement.

Scaffolding questions to ensure student understands the function of specific components in context or can connect concepts for the circuit to other circuits studied.

Moderation Details for Calibration - Sample 2

Sample 2 - Please identify each criterion being moderated and IF SELECTED the elements within that criterion

Criterion 1 = Overall
Criterion 6 = Overall

Sample 2 - What rating (or ratings) has the group assigned this sample?

C1: C, C6: C

Sample 2 - What evidence supports the rating (or ratings) the group has given?

Student showed some capability to test and build the circuit, but some fairly obvious omissions from the testing process that would have identified errors in the design before committing.

Little evidence of understanding of the block diagram.

No interpretation of analysis of the overall function of the circuit, nor anything related to the operation of specific components.

Sample 2 - What evidence would you

IPO diagram should have human inputs (not PS)

need to see in order to assign a higher rating (or ratings)?

Processor needs elaborating to include a stable mode.

Output is speaker and LED, not just pin 3.

Examine the consequences of adding the 1k resistor in series with speaker.

Test full circuit (not just a stable part) on breadboard before committing

Sample 2 - Summary of group consensus with comments to element level if applicable.

Comparison of report submitted with the initial task requirements showed a failure to accurately follow instructions. Some of the circuit faults may have been identified and could have been corrected if the instructions have been followed more closely.

Sample 2 - What actions would you recommend for teachers to help the student attain a higher rating (or ratings)?

Suggest a check list of tasks that student can tick off as they work through the task - this can be monitored by teacher during class.

Scaffolded questions to prompt student's thinking in the analysis and testing of the final circuit design.

Planning for March Moderation 2020 - Statewide Samples

For all courses please nominate the criteria and elements (if desired) for moderation.

ELT 3 - C3 all elements

Sharing Resources

Please record any links to or details of resources that were shared, or describe any assessment strategies that were discussed.

Discussed the preparation of marking guides/performance indicators so that students know exactly what is being assessed and how. Also so that they know exactly what is required for an "A", "B" or "C" result.

In regard to collecting evidence for C3, we discussed using log books and creating pro forma's so that there is no ambiguity about the what and how of the assessment process.

Also discussed the possibility of having a weekend meeting when we can discuss and work on these ideas face-to-face.

Course Support

Please provide details of any future focus and ways forward you would like Curriculum Services to consider in relation to this course:

Electronics Teachers desperately need a face-to-face meeting to discuss matters pertaining to improving the clarity and transparency of the assessment process for students and drawing our assessments down to element level. We also need to discuss developments in the technology of Electronics and where some of these might fit in the current syllabus, so that the subject is kept current and relevant.