



**Prifysgol Cymru**  
Y Drindod Dewi Sant  
**University of Wales**  
Trinity Saint David

## Examination Answer Books

12 Pages

## Instructions to Candidates

1. Please give the information requested in the boxes below.
2. Enter your name in the space provided to the right, fold over and seal down (using the label provided) to hide your name.
3. The answers must be legibly written. The Examiners can either ignore illegible script or have it typed and the expense of typing charged to the candidate.
4. Write your answers in ink.
5. Begin each answer on a fresh page. Do all rough work in the answer book and cross it through.
6. No part of this book is to be torn out; it must be handed in complete.
7. If more books than one are used, fasten them together using the tags available from the invigilator(s).
8. **Every book must be handed in. In no circumstances may answer books, used or unused, be taken out of the examination venue.**

|   |                                  |                   |
|---|----------------------------------|-------------------|
| 1 | Student Number                   | 2413461           |
| 2 | Title of Examination Paper       | EMBEDDED C        |
| 3 | Module Code                      | ACDA4013          |
| 4 | Date and Time of Examination     | 13/05/26<br>10 AM |
| 5 | Examination Venue                | IQ206             |
| 6 | Seat Number                      |                   |
| 7 | Number of Answer Books handed in |                   |

| List the numbers of the questions you have attempted | Office Use |
|------------------------------------------------------|------------|
| Q1                                                   | 25         |
| Q2                                                   | 25         |
| Q3                                                   | 22         |
| Q4                                                   | 16         |
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| Total                                                | 88/100     |

(Gweler yr ochr arall am y fersiwn Cymraeg)

Examiner Only

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and LED2

3

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2

Pl 1  
14/5/26

Q3bi) When button is pressed the LED1 (Left) is turned off and LED2 (Right) is turned on.

3

bii) LEDs are set to output from the Micro controller on PIN\_B0 and PIN\_B1

2

Button is set to input to the Micro controller with a drop down resistor.

biii) the role of RB4 is to control the logic of the LEDs.

3

Signal is pass through the button onto the Micro controller to start the logic of the LEDs.

+13

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from the  
word doc

$$Q1 \frac{25}{25}$$

$$Q2 \frac{25}{25}$$

Q4a) The operation is the a Message is send to UART over RS232 ~~both~~ on PIN\_C6 to transmit and PIN\_C7 to receive. When Button is pressed on ~~pin~~ PIN\_C0 this will start the logic by turned PIN\_B0 LED on and a Message to UART "LED ON". When button is release then the LED is turned off and Message to UART "LED OFF".

d) this set all Port B as output apart from ~~B~~ PIN\_B7 is set to input.

e)

f) this will damage the Micro-controller because there is no resistor to limit the current going to the Microcontroller.

16  
25



Question No.

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