OCR
Oxford Cambridge and RSA

# Cambridge National in Engineering

## OCR Systems control in engineering Unit R115

**Unit Recording Sheet**

Please read the instructions printed at the end of this form. One of these sheets, suitably completed, should be attached to the assessed work of each candidate.

| **Unit Title** | **Engineered application of computers** | **Unit Code** | **R115** | Series | **Jan** | **Year** | |
|---|---|---|---|---|---|---|---|

| **Centre Name** | | **Centre Number** | |
|---|---|---|---|
| **Candidate Name** | | **Candidate Number** | |

| **Marking Criteria – Total Marks for this unit is 60** | | | | |
|---|---|---|---|---|
| **Mark Band 1** | **Mark Band 2** | **Mark Band 3** | **Teacher Comment** | **Page** |
| **LO1: Understand how computers are used in engineering design, manufacture and process control** | | | **Mark** | |
| Demonstrates a **limited** understanding of how computers are used within engineering design, manufacture and process control.<br><br>Draws upon **limited** skills/knowledge/understanding from other units in the specification.<br><br>**1 – 5 marks** | Demonstrates a **sound** understanding of how computers are used within engineering design, manufacture and process control.<br><br>Draws upon **some relevant** skills/knowledge/understanding from other units in the specification.<br><br>**6 – 10 marks** | Demonstrates a **thorough** understanding of how computers are used within engineering design, manufacture and process control.<br><br>**Clearly** draws upon **relevant** skills/knowledge/understanding from other units in the specification.<br><br>**11 – 15 marks** | | |
| **LO2: Understand how computers are used for maintenance of engineering systems** | | | **Mark** | |
| Demonstrates a **limited** understanding of the use of 'Human Machine Interface (HMI)' and 'expert systems' within system operation, diagnostics and maintenance.<br><br>Interprets **some** results obtained from system operation data with **limited** accuracy.<br><br>Recommendations for modifications or corrections to a system operation are **basic** with **limited** relevance.<br><br>**1 – 6 marks** | Demonstrates a **sound** understanding of the use of 'Human Machine Interface (HMI)' and 'expert systems' within system operation, diagnostics and maintenance.<br><br>Interprets results obtained from system operation data with **some** accuracy.<br><br>Recommendations for modifications or corrections to a system operation are **appropriate** with **some** relevance.<br><br>**7 – 12 marks** | Demonstrates a **thorough** understanding of the use of 'Human Machine Interface (HMI)' and 'expert systems' within system operation, diagnostics and maintenance.<br><br>**Accurately** interprets results obtained from system operation data<br><br>Recommendations for modifications or corrections to a system operation are **thorough** and **relevant**.<br><br>**13 – 18 marks.** | | |

| LO3: Know how computers are used to communicate and use data for production and maintenance | | | Teacher Comment | Page |
|---|---|---|---|---|
| Demonstrates **limited** knowledge of the use of computers to communicate and exchange data during production operations.<br><br>Provides a **basic** description of how production data is used in maintenance operations.<br><br>**1 – 4 marks** | Demonstrates **some** knowledge of the use of computers to communicate and exchange data during production operations.<br><br>Provides a **detailed** description of how production data is used in maintenance operations.<br><br>**5 – 8 marks** | Demonstrates **comprehensive** knowledge of the use of computers to communicate and exchange data during production operations.<br><br>Provides a **comprehensive** and **detailed** description of how production data is used in maintenance operations.<br><br>**9 –12 marks** | **Mark** | |
| Provides a **limited** description of how computer are used to communicate and exchange data in maintenance operations.<br><br>Demonstrates a **basic** knowledge of the use of hand held computer devices in manufacturing and maintenance systems.<br><br>**1 – 5 marks** | Provides a **detailed** description of how computers are used to communicate and exchange data in maintenance operations.<br><br>Demonstrates a **detailed** knowledge of the use of hand held computer devices in manufacturing and maintenance systems.<br><br>**6 – 10 marks** | Provides a **comprehensive** and **detailed** description of how computers are used to communicate and exchange data in maintenance operations.<br><br>Demonstrates a **comprehensive** knowledge of the use of hand held computer devices in manufacturing and maintenance systems.<br><br>**11 – 15 marks** | **Mark** | |
| | | | **Total/60** | **0** |

| If this work is a re-sit, please tick | | Session and Year of previous submission | | Please tick to indicate this work has been standardised internally | |
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## Guidance on Completion of this Form

Please note: This form may be updated on an annual basis. The current version of this form will be available on the OCR website (www.ocr.org.uk).

## Guidance on Completion of this Form

1 **One** sheet should be used for each candidate.
2 Please ensure that the appropriate boxes at the top of the form are completed.
3 Please enter *specific* page numbers where evidence can be found in the portfolio, and where possible, indicate to which part of the text in the mark band the evidence relates.
4 Circle the mark awarded for each strand of the marking criteria in the appropriate box and enter the circled mark in the final column.
5 Add the marks for the strands together to give a total out of 60 Enter this total in the relevant box.