

Department of Defense Education Activity

# Certificate of Competency

## Computer Service and Support

This is to certify that the student identified on the reverse side of this certificate has demonstrated proficiency in the listed technical competencies and employability skills for computer servicing and support.

Instructor

Administrator

Date



# COMPETENCY PROFILE

Printed: / /

School Address:

## Computer Service and Support

Instructor Name:

**DESCRIPTION:** This student is considered to be work-ready in all the competencies listed below. Work-ready is defined as being judged proficient in the jobs or tasks in the competency area by performing them independently, without assistance, during the training period.

Student's Name

### Level I - Orientation

#### A. PERSONNEL

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|--|--|---|
| <b>1. Personnel</b><br>Exam  | The Homework Policy<br>The Assignment Schedule<br>The Competency Certificate | The Personnel Record<br>The Resume                                    |
| <b>2. Course Orientation</b><br>The Course Description<br>Required Materials<br>The Rules of Conduct<br>The Grading Policy | <b>3. Employment Opportunities</b><br>The Job Search                         | Interview Preparation<br>The Job Interview<br>The Employment Contract |
|  | <b>4. Applying for a Job</b><br>The Job Application                          |   |

#### B. FORMS AND PUBLICATIONS

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|---|---|---|
| <b>1. Forms and Publications</b><br>Exam  | The Parts Kit Inventory Record<br>The Temporary Issue Receipt<br>The Out Record<br>The Supply Order Form<br>Using Technical Manuals | <b>3. Work Order Control</b><br>The Work Order Form<br>The Repairable Item Tag<br>The Job Control Log<br>The Julian Calendar<br>Job Dispatcher Software |
| <b>2. Documentation</b><br>The Time Card<br>The Homework Sheet<br>The Tool Inventory Record |   |   |

#### C. PC TECHNICIAN TOOLKIT

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|---|---|--|
| <b>1. PC Technician Toolkit</b><br>Exam | <b>2. Tool ID, Use, and Care</b><br>Tool ID and Use | Tool Inventory<br>Using a Digital Multimeter |
|---|---|--|

### Level II - PC Service Fundamentals

#### D. ELECTRONICS

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|---|--|-------------------------------|
| <b>1. Electronics</b><br>Exam   | <b>3. Electronics Skills</b><br>Component Testing<br>Basic Soldering | <b>6. Transistor Circuits</b> |
| <b>2. Electronics Foundation</b><br>Scientific Calculator<br>Electronics Formulas | <b>4. Passive Devices</b>  | <b>7. Thyristors (SCR)</b>    |
|   | <b>5. Active Devices</b>   | <b>8. Integrated Circuits</b> |
|   |  | <b>9. IC Circuits</b>         |

#### E. PC ANATOMY

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|------------------------------------|---------------------------------|
| <b>1. External Anatomy</b><br>Exam | <b>2. Gross Anatomy</b><br>Exam |
|------------------------------------|---------------------------------|

#### F. THE PREVENTIVE MAINTENANCE INSPECTION

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|---|--|--|
| <b>1. The PC PMI</b><br>Exam                                    | Monitor<br>Mouse<br>Keyboard<br>Drive Maintenance<br>Diagnostics Testing | Workstation Setup  |
| <b>2. PMI Overview</b><br>Initial Workstation Inspection<br>CPU |  | <b>3. Performing the PMI</b><br>Computer Workstation PMI<br>Hard Drive Maintenance<br>Computer Diagnostics |

## Level III - Hardware and Software

### **G. CPU DISASSEMBLY**

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|---|--|---|
| <b>1. CPU Disassembly</b><br>Exam                             | CDROM<br>Floppy Drive                          | U-Processor & Memory                                |
| <b>2. CPU Disassembly Overview</b><br>Chassis<br>Power Supply | Hard Drive<br>Interface Boards<br>Mother Board | <b>3. Disassembling the CPU</b><br>Performance Test |

### **H. OPERATING SYSTEM AND SOFTWARE**

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|---|---|--|
| <b>1. OS and Software</b><br>Exam               | Linux<br>Device Drivers   | Network Client Software<br>Internet Browser Software |
| <b>2. Operating Systems</b><br>MSDOS<br>Windows | <b>3. Application Software</b><br>Antivirus Software<br>Diagnostic Software | The Software Toolkit<br>Imaging a Workstation        |

### **I. PC UPGRADES**

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|--|----------------------|-------------------------------|
| <b>1. Upgrading PCs</b><br>Exam                      | Memory<br>Hard Drive | Disk Drive<br>SCSI            |
| <b>2. Installing PC Upgrades</b><br>Software Drivers | Video<br>Modem       | Specialized Interface Devices |

## Level IV – Advanced PC Service Topics

### **J. PC ASSEMBLY**

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|--|----------------------------|--|
| <b>1. PC Assembly</b><br>Exam          | Power Supply<br>Hard Drive | Mother Board<br>Video Interface Card           |
| <b>2. CPU Disassembly Review</b>       | Floppy Drive               | Sound Card                                     |
| <b>3. Assembling the PC</b><br>Chassis | CDROM<br>Memory Modules    | Network Interface Card<br>Computer Workstation |

### **K. PC TROUBLESHOOTING AND REPAIR**

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|---|---|---|
| <b>1. PC Troubleshooting</b><br>Exam  | PC Mouse<br>PC Video Interface                                      | OS Troubleshooting<br>Software Troubleshooting                                    |
| <b>2. Troubleshooting Hardware</b><br>Basic Troubleshooting<br>PC Power Supply<br>PC Mainboard<br>PC Keyboard | PC Audio Interface<br>Hard Disk Drive<br>Floppy Disk Drive<br>CDROM | <b>4. Advanced Troubleshooting</b><br>Troubleshooting Challenges<br>Faulted Parts |
|   | <b>3. Troubleshooting Software</b>                                  |   |

### **L. NOTEBOOK COMPUTERS**

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|--|-----------------------------|-------------------------------------|
| <b>1. Notebook Computers</b><br>Exam                 | Battery<br>Keyboard         | Microprocessor<br>Floppy Disk Drive |
| <b>2. Servicing Notebooks</b><br>Notebook Technology | EMI Shield<br>Memory Module | Hard Disk Drive<br>CDROM Drive      |
| <b>3. Notebook Disassembly</b>                       | Heat Sink Blower            | Feature Cards                       |

## Level V - PC Connectivity

### **M. PC NETWORKING**

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|---------------------------------|--|---|
| <b>1. PC Networking</b><br>Exam | <b>2. PC Networks</b><br>Network Fundamentals<br>TCP/IP and the Internet | <b>3. PC Networking</b><br>Modems/Dial-Up PPP<br>Windows Networking |
|---------------------------------|--|---|

### **N. PC PRINTERS**

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|--|---|---|
| <b>1. PC Printers</b><br>Exam                      | Ink Jet Printers<br>Laser Printers                | <b>4. Troubleshooting Printers</b><br>Common Printer Problems |
| <b>2. Servicing PC Printers</b><br>Impact Printers | <b>3. Printing Techniques</b><br>Windows Printing |   |

### **O. A+ CERTIFICATION**

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| <b>1. A+ Certification</b><br>Preparatory Exam | <b>2. CompTIA A+ Preparation</b><br><b>3. Practice Exams</b> |
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