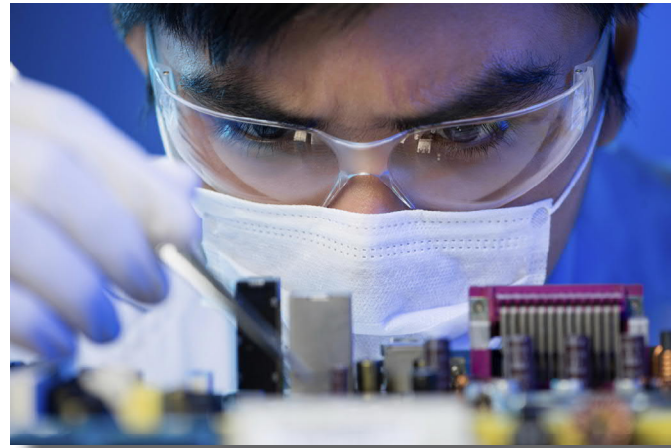


## Standards and Test Content Electronics Assembler

### Demonstrate Proper Procedures and Practices for Safety in the Work Area (14 questions)

1. Identify and practice mechanical safety
  - Tool safety
  - Hand safety
  - Eye safety
2. Immediately report injuries/accidents following company procedures
3. Identify and practice electrical safety
4. Participate in “Right to Know” training and practice environmental safety
  - Chemical awareness
  - Environmental regulations
  - Gases and pressure safety
5. Identify and practice safety related to infectious disease, universal precautions, blood-borne pathogens, and chemical hygiene
6. Identify and practice thermal safety
7. Identify and practice radiation safety
8. Demonstrate knowledge of lock-out/tag-out requirements and danger associated with potential energy sources
9. Identify and practice fiber optic handling safety
10. Perform a leakage check on electronic equipment
11. Test electrical equipment to ensure proper grounding
12. Identify sources of hazardous noise



### Demonstrate Employability Skills (4 questions)

1. Maintain a courteous and responsible attitude toward all customers
2. Demonstrate appropriate interpersonal skills
3. Maintain self-esteem in self and others
  - Analyze personal space and needs
  - Interpret emotional reactions
  - Determine values scale and attitudes
  - Cope with change
  - Interpret sensory clues

4. Recognize the importance of teamwork and participate as a team member
  - Participate in team (group) meetings
    - Focus on topic and purpose of the meeting
    - Offer facts and ideas
    - Help others contribute facts and ideas
  - Pass on good ideas
  - Look for ways to help others
  - Give recognition for things well done
  - Let others know what you need to get the job done
5. Maintain professional respect for supervisor and co-workers
6. Use professionalism
  - Follow facility dress code
  - Exhibit positive attitude
  - Exhibit initiative
  - Exhibit loyalty
  - Exhibit respect to others
  - Exhibit flexibility
  - Exhibit commitment
  - Practice hygiene
7. Use critical thinking skills in workplace situations
  - Distinguish appropriateness of equipment and tests
  - Decision making
  - Creativity
  - Use quality performance processes
  - Use tools to analyze information
    - Use basic statistical concepts and analysis
    - Create charts
    - Create histograms
    - Create flow charts
    - Use quality tools
    - Evaluate stressful situations
    - Evaluate how to manage ethical conflicts
8. Maintain satisfactory attendance
  - Punctuality
  - Tardiness
  - Early departure
  - Absence
  - Calling in
9. Use stress management techniques
10. Function within the organizational structure
  - Chain of command
  - Amount of empowerment
11. Distinguish the departments within the organization
12. Distinguish the roles of the organizational members
13. Use self-management and time management techniques
  - Independence
  - Self-evaluation
  - Leadership skills
  - Supervision
  - Delegation
  - Organization
  - Prioritization
  - Initiative
14. Use deductive and inductive reasoning skills

15. Use proper telephone etiquette

- Project positive telephone image
- Manage incoming telephone calls
  - Receive incoming calls
  - Screen incoming calls
  - Transfer incoming calls when indicated
  - Manage multiple incoming calls
  - Use telephone log or computerized system
- Manage telephone calls
  - Inquiries
- Manage telephone calls involving special problems
  - Unidentified callers
  - Angry callers
  - Calls from family and friends
- Manage telephone calls involving medical emergencies
- Record and deliver telephone calls
  - Local
  - Long distance
  - Conference
- Use special features if available
- Identify factors that relate to a global business environment
  - Time zones
  - International dialing codes
- Use telephone directories
  - Evaluate types and organization of each type
  - Use telephone assistance and information
  - Maintain company directory

16. Employ listening skills

- Show interest
- Ask questions and clarify what has been heard
- Let person know what you understand

17. Compose written communication legibly using correct grammar, spelling, and format

- Compose questions
- Compose consent forms
- Compose student evaluation reports
- Select and use appropriate format for written communication
- Use reference materials as appropriate
- Use proper grammatical techniques
  - Abbreviate for words used in addresses, measurements, months and days of the year
  - Use proper punctuation

18. Interpret and follow written directions and information

19. Interpret and follow oral directions

20. Use job-related terminology, symbols, and abbreviations



21. Use basic keyboarding skills and computer skills
  - E-mail
  - File transfer protocol (FTP)
  - Internet
  - Operating System
  - Office Suite Products
22. Use effective communication techniques with peers, co-workers, and customers
  - Pronounce words correctly
23. Use verbal and non-verbal communication techniques
24. Apply behavioral management techniques to workplace situations
  - Use personal coping skills
  - Deal with customers and co-worker attitudes
  - Exhibit a sense of humor
  - Use positive feedback techniques
    - Emphasize strengths
  - Use negative feedback techniques
    - Stress main points the person could do differently
25. Identify personal and work-related goals and monitor progress
  - Chart and set long, medium, and short term goals
  - Determine educational needs
  - Set professional goals
  - Set personal goals
26. Respond to compliments, complaints, conflicts, and criticism appropriately
27. Compile research data
28. Apply electronics-related mathematical concepts
  - Addition, subtraction, multiplication, and division of:
    - Whole numbers
    - Fractions
    - Decimals
    - Percentages
    - Binary mathematics
    - Hexadecimal mathematics
  - Exponents
  - Scientific notations
  - Significant digits
  - Basic trigonometry functions
  - Measurements
    - U.S. to metric
    - Metric to U.S.
  - Use of calculator
  - Concept of coins and currency
  - Estimation
  - Reading charts, graphs, and tables
  - Basic geometry
  - Application of formulas
    - Word problems
    - Thought problems

29. Use negotiation skills

- Interpret how to reasonably disagree
- Interpret ways to overcome objections
- Solve everyday human relation problems

30. Use career development skills

- Write cover/application letter
- Complete job application
- Interpret Form W-2
- Write a job description
- Investigate an occupation
- Explore career opportunities
- Compare career options
- Develop a personal career plan
- Negotiate salary and benefits

31. Use multi-cultural sensitivity skills

- Recognize and respect diverse customs and accommodate them in the work environment

32. Understand anti-discriminatory laws and take steps to comply with laws relating to:

- Gender
- Race
- Disability
- Age
- Religion
- National origin
- Color

## Identify and Demonstrate Proper Use of Industry-Specific Tools and Test Equipment (2 questions)

1. Demonstrate proper use of pneumatic tools
2. Use appropriate instrumentation to test ESD protective systems

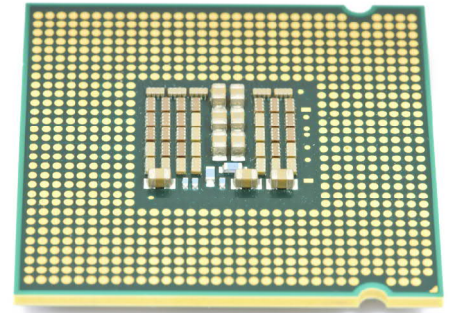
## Identify and Demonstrate Proper Use of Common Tools and Test Equipment (13 questions)

1. Use an analog multimeter to measure:
  - Voltage
  - Current
  - Resistance
2. Use a digital multimeter to measure:
  - Voltage
  - Current
  - Resistance
3. Demonstrate proper care and use of precision measuring tools and instruments
4. Perform metric and standard mechanical measurements
5. Demonstrate proper use of hand tools



## Identify Components, Establish Their Value or Parameters Using Common Reference Material and Color Codes, and Test for Proper Function (14 questions)

1. Distinguish between conductors and insulators –basic materials
2. Identify types of cells and batteries and demonstrate proper storage and handling procedures
3. Identify the types and applications of connectors
4. Identify the types and applications of lamps
5. Identify parts and functions of motors and generators
6. Identify functions of solenoids, relays, and switches
7. Determine resistor values by color code and size
8. Identify diode types and parameters by color codes and/or markings
9. Identify types of transistors and their parameters
10. Identify types of thyristors and their parameters
11. Identify integrated circuit families
12. Identify syncro, servo, and stepper motors, associated components, characteristics, and operations
13. Identify and test circuit protection devices
14. Demonstrate proper handling of static-sensitive devices
15. Identify types and applications of various photo-sensitive devices
16. Determine capacitor values
17. Determine inductor values
18. Identify transformer ratings and lead configurations by color codes and/or markings
19. Identify types/sizes of wire and cable and appropriate applications



## Demonstrate Proper Soldering and Desoldering Procedures (3 questions)

1. Perform standard soldering and desoldering techniques
2. Perform hot air soldering and desoldering techniques
3. Identify multi-layer boards and demonstrate knowledge of procedural differences
4. Perform surface-mount soldering and desoldering techniques
5. Perform high and low temp soldering

## Identify Fasteners and Terminals and Demonstrate Proper Installation Procedures (2 questions)

1. Identify types of fasteners and terminals
2. Demonstrate use of fasteners and terminals
3. Differentiate between types and sizes of screws

## Read and Interpret Schematics, Diagrams, and Blueprints (3 questions)

1. Identify and use common notations and symbols
2. Use schematics, diagrams, and blueprints to locate and identify specific equipment within areas
3. Use schematics, diagrams, and blueprints to interface subassemblies/peripherals
4. Use schematics, diagrams, and blueprints to construct/assemble equipment

