Advanced Skills Assessment Blueprint

Instrumentation and Control

Test Code: 0638 / Version: 01
**Written Assessment:**

*Administration Time:* 3 hours  
*Number of Questions:* 160

**Areas Covered:**

<table>
<thead>
<tr>
<th>Task</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calibrate Instrument</td>
<td>24%</td>
</tr>
<tr>
<td>Perform Preventative Maintenance</td>
<td>28%</td>
</tr>
<tr>
<td>Repair Networks</td>
<td>3%</td>
</tr>
<tr>
<td>Install Networks</td>
<td>5%</td>
</tr>
<tr>
<td>Repair Control Systems</td>
<td>4%</td>
</tr>
<tr>
<td>Modify Control Systems</td>
<td>2%</td>
</tr>
<tr>
<td>Install Control Systems</td>
<td>3%</td>
</tr>
<tr>
<td>Develop Software</td>
<td>7%</td>
</tr>
<tr>
<td>Maintain Board Repair Facility</td>
<td>13%</td>
</tr>
<tr>
<td>Maintain Monitoring System</td>
<td>5%</td>
</tr>
<tr>
<td>Perform Miscellaneous Duties</td>
<td>6%</td>
</tr>
</tbody>
</table>
Sample Questions:

Specific gravity is measured in wet cell batteries to determine
A. level of water  
B. amount of EMF  
C. acid concentration  
D. number of bad plates

A “brown out” condition in an electrical circuit is
A. no voltage  
B. low voltage  
C. high voltage  
D. DC voltage

What is the purpose of using a MOV in a communication line?
A. fault locator  
B. control device  
C. surge protection  
D. transmission media

When switching from backup to normal power on an UPS system, what should always be done first?
A. turn inverter on  
B. turn inverter off  
C. notify coordinators  
D. disconnect batteries

What is electricity in motion called?
A. voltage drop  
B. electrical pressure  
C. static electricity  
D. current