

# **Union Pacific Railroad**

**Apprentice Work Equipment Mechanic Test Battery**

***Practice Questions***

## **Workplace Learning Instructions**

This section contains sample items for the Workplace Learning Test. The items contained in this section are meant to provide individuals with an idea of what to expect when they take the actual Workplace Learning Test.

This is a test of your ability to remember and follow directions. During the test, you will listen to instructions given by an audio CD explaining how to complete certain jobs. Once each set of instructions ends, you will be asked to answer a series of questions. You should take notes as the instructions are given. Note-taking sheets will be provided in the test booklet.

The following page provides a passage like the one that would be read for you during the test. You should read through the sample passage and then answer the sample questions provided.

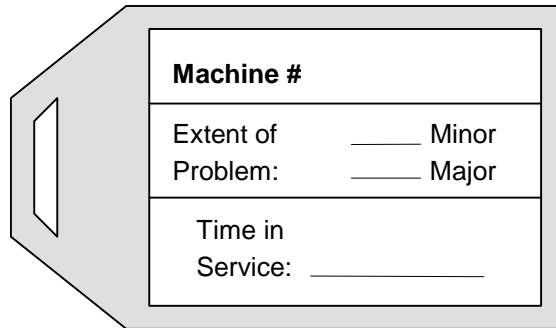
Remember, on the actual test, the instructions or conversation will be read aloud to you via an audio CD. You will need to listen to the instructions or conversation and then answer the questions.

## Sample Questions

Use the passage below to answer sample questions 1-4.

In italics below is a sample passage that would be read aloud to you during the test. The equipment problem tag referred to in the instructions is shown below the passage.

*Lead Mechanic: When problems occur with your machine contact your supervisor if it's a minor problem and the machine has been in service for more than a year. If a major problem comes up or the machine has been in service for less than one year report that problem to the maintenance department.*



The image shows a 3D perspective view of a rectangular equipment problem tag. The tag has a handle on the left side. The front face of the tag is divided into three horizontal sections by thin lines. The top section is labeled "Machine #" and is currently empty. The middle section contains the text "Extent of Problem:" followed by two horizontal lines, each with a radio button. The first line is followed by the word "Minor" and the second line is followed by the word "Major". The bottom section contains the text "Time in Service:" followed by a horizontal line.

<b>Machine #</b>	
Extent of Problem:	<input type="checkbox"/> Minor
	<input type="checkbox"/> Major
Time in Service:	_____

Indicate what action should be taken in sample questions 1-4.

1

<b>Machine #</b>	5731
Extent of Problem:	<input checked="" type="checkbox"/> Minor <input type="checkbox"/> Major
Time in Service:	2 Yrs.

- A Report to supervisor
- B Report to maintenance
- C Need additional information

2

<b>Machine #</b>	622
Extent of Problem:	<input type="checkbox"/> Minor <input checked="" type="checkbox"/> Major
Time in Service:	6 Mos.

- A Report to supervisor
- B Report to maintenance
- C Need additional information

3

<b>Machine #</b>	772
Extent of Problem:	<input checked="" type="checkbox"/> Minor <input type="checkbox"/> Major
Time in Service:	8 Mos.

- A Report to supervisor
- B Report to maintenance
- C Need additional information

4

<b>Machine #</b>	<b>523</b>
Extent of Problem:	<input type="checkbox"/> Minor <input checked="" type="checkbox"/> Major
Time in Service:	<input type="text" value="3 Yrs."/>

- A Report to supervisor
- B Report to maintenance
- C Need additional information

## **Answers**

1. A   2. B   3. B   4. B

## **Workplace Practices 2.0 Instructions**

This section contains sample items for the Workplace Practices 2.0 Test. The items contained in this section are meant to provide individuals with an idea of what to expect when they take the actual Workplace Practices 2.0 Test.

This test has two sub-sections. Both sections include questions that describe peoples' attitudes about themselves and their work. Please answer each question in a way that best describes your own experiences, judgments, and opinions. It is very important that you answer each item honestly and as accurately as possible. There are no right or wrong answers to this test.

In one section you are asked to read each statement, then decide whether you agree or disagree with what it says, and select your answer. If you **strongly agree** with the statement, select choice "A." If you **somewhat agree** with the statement, select choice "B." If you **somewhat disagree** with the statement, select choice "C." Finally, if you **strongly disagree** with the statement, select choice "D."

Section two contains two types of questions. Some questions ask you about work practices. Other questions describe a situation and ask you what to do. Read each question and choose the **one** answer that most accurately reflects your opinion. For some questions, more than one answer may seem appropriate. In these instances, choose the one answer that most accurately reflects your opinion.

## Sample Questions

Section 1: Sample questions 1-4.

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<b>1</b>	<b>I dislike performing repetitive tasks.</b>	A Strongly Agree
		B Somewhat Agree
		C Somewhat Disagree
		D Strongly Disagree

---

<b>2</b>	<b>I prefer to be spontaneous and do things on the “spur of the moment.”</b>	A Strongly Agree
		B Somewhat Agree
		C Somewhat Disagree
		D Strongly Disagree

---

<b>3</b>	<b>I am conscious of the effect my behavior and actions have on others.</b>	A Strongly Agree
		B Somewhat Agree
		C Somewhat Disagree
		D Strongly Disagree

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<b>4</b>	<b>I agree with the saying, “the devil is in the details.”</b>	A Strongly Agree
		B Somewhat Agree
		C Somewhat Disagree
		D Strongly Disagree

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Section 2: Sample questions 5-8

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<b>5</b>	<b>How many absences do you think the typical worker would have over a six-month period?</b>	A None
		B One day
		C Two to three days
		D Four or five days
		E Six or more days

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- 
- 6** Suppose we contacted your most recent supervisor. How would he/she rate your adherence to company policies and procedures?
- A Well above average
  - B Somewhat above average
  - C Average
  - D Below average
  - E I have never been employed
- 

- 7** Toni, a line worker, has an idea to improve the assembly procedure that would allow workers to produce more widgets per hour. She has presented her idea to her supervisor on more than one occasion, but her supervisor is reluctant to listen to the ideas of his subordinates. Toni really believes that if her idea were implemented, it would improve company profits. If you were Toni, what would you do?
- A Go ahead and make the improvements anyway. After all, if the supervisor could see the improvements, he would have no choice but to agree to the change.
  - B Talk to coworkers about the idea and enlist their help in obtaining the supervisor's buy-in.
  - C Go to the supervisor's boss with the idea.
  - D File a complaint with the company's HR office. It is unfair that the supervisor will not listen to the ideas of his subordinates.
  - E Do nothing. After all, it is the company's loss.
-

- 
- 8** During your shift, a co-worker is working with a piece of heavy machinery and has an accident. As a result, he must be rushed to the hospital. Based on your experience, and without knowing more about the situation, what do you think the *most likely* cause of the accident was?
- A Poor maintenance of equipment
  - B Bad luck
  - C Co-worker's failure to adhere to company policies
  - D Lack of attention to safety procedures
  - E Distractions caused by other coworkers
-

## **Arithmetic Computations Instructions**

This section contains sample items for the Arithmetic Computations Test. The items contained in this section are meant to provide individuals with an idea of what to expect when they take the actual Arithmetic Computations Test.

This is a test of your ability to solve arithmetic problems. This test will ask you to perform general arithmetic computations (addition, subtraction, multiplication, division) to test questions involving whole numbers, fractions, decimals and percentages. On the actual test, you will not be allowed to use a calculator, but you will be given a piece of scratch paper for your calculations.

When completing this test, you will need to work quickly and accurately to complete as many items as possible. Your score is based on the total number of items you answer correctly.

## Sample Questions

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1  $12.4 + 6.4 =$

- A 16.4
  - B 16.8
  - C 18.4
  - D 18.8
  - E other
- 

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2  $672 - 95 =$

- A 576
  - B 577
  - C 586
  - D 587
  - E other
- 

---

3  $5.6 \times 30 =$

- A 16.8
  - B 33.0
  - C 168
  - D 330
  - E other
- 

---

4  $1/5$  of 60 =

- A .20
  - B 5
  - C 12
  - D 60.5
  - E other
-

---

5     $618 \div 12 =$

A    51.0  
B    51.5  
C    61.0  
D    61.5  
E    other

---

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6     $1/3 + 3/4 =$

A     $4/3$   
B    1  
C     $1 \frac{1}{12}$   
D     $1 \frac{1}{3}$   
E    other

---

---

7    15% of 650 =

A    39  
B    43.3  
C    95.5  
D    97.5  
E    other

---

---

8     $75.368 + 152.74 =$

A    227.108  
B    227.442  
C    228.108  
D    228.442  
E    other

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## **Answers**

1. D   2. B   3. C   4. C   5. B   6. C   7. D   8. C

## **Advanced Industrial Skills Instructions**

This section contains sample items for the Advanced Industrial Skills Test. The items contained in this section are meant to provide individuals with an idea of what to expect when they take the actual Advanced Industrial Skills Test.

This is a test of your ability to identify and use standard work instructions and procedures like those you might find on the job. This test contains a number of work instructions presented in text, tables, or diagrams. Each set of work instructions is followed by several questions. Your task on this test is to apply the work instructions to determine the best answer for each question.

## Sample Questions

Use the work instructions below to answer Sample Questions 1 - 4.

### WORK INSTRUCTIONS

When monitoring the assembly machine, it is important to react to the warning indicator. When the status changes, you must take the following actions depending upon the numbered warning.

---

If the warning is a:	Then the required action is:
1	No action required, continue processing
2	First, check product quality and then call maintenance
3	Shut off machine and contact supervisor immediately

---

The warning indicator may, on occasion, turn off. If this happens, you should press the reset button and wait 30 seconds for the machine to run a self-test. If resetting the machine fails to fix the problem, then shut off the machine and contact your supervisor.

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- 
- |   |                          |
|---|--------------------------|
| <b>1</b> If the warning indicator shows a 1, what action is required? | A No action is required  |
|   | B Check product quality  |
|   | C Shut off machine       |
|   | D Press the reset button |
|   | E Need more information  |
- 

- 
- |   |                         |
|---|-------------------------|
| <b>2</b> What action should you take last if the warning indicator shows a 2? | A No action is required |
|   | B Check product quality |
|   | C Contact supervisor    |
|   | D Call maintenance      |
|   | E Shut off machine      |
- 

- 
- |  |                         |
|--|-------------------------|
| <b>3</b> What action should you take first if the warning indicator shows a 3? | A No action is required |
|  | B Check product quality |
|  | C Contact supervisor    |
|  | D Call maintenance      |
|  | E Shut off machine      |
-

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4 If the warning indicator turns off and resetting the machine does not correct the problem, what is the last action you should take?

- A No action is required
  - B Check product quality
  - C Contact supervisor
  - D Call maintenance
  - E Shut off machine
-

## **Answers**

1. A   2. D   3. E   4. C

## **Tool Knowledge Test Instructions**

This section contains sample items for the Tool Knowledge Test. The items contained in this section are meant to provide individuals with an idea of what to expect when they take the actual Tool Knowledge Test.

This is a test of your ability to identify tools and standard hardware and how they are commonly used. The test contains figures and pictures of tools and hardware. Your task is to read each question and select the best answer from the alternatives given. All the information you need to answer the questions will be provided.

## Sample Questions

Use the pictures above each question to answer sample questions 1-4.



- 
- 1 The tool shown in the figure above is called a(n):
- A Pliers
  - B Scissors
  - C Wrench
  - D Awl
- 



- 
- 2 The item shown in the figure above is a:
- A Beater
  - B Socket extension
  - C Tap handle
  - D Ratchet handle
  - E Torque wrench
-



- 
- 3** The tool shown in the figure above is a:
- A Slip-joint pliers
  - B Wire stripper
  - C Snips
  - D Lineman's pliers
- 



- 
- 4** The tool shown in the figure above is called a:
- A Bow saw
  - B Coping saw
  - C Back saw
  - D Hack saw
-

## **Answers**

1. B   2. D   3. B   4. D

## **Mechanical Comprehension Instructions**

This section contains sample items for the Mechanical Comprehension Test. The items contained in this section are meant to provide individuals with an idea of what to expect when they take the actual Mechanical Comprehension Test.

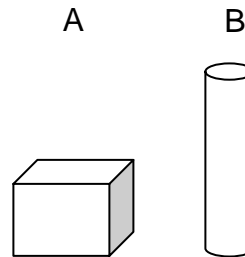
This is a test of your ability to solve problems that involve mechanical principles and problems. The test contains questions that show you an illustration of a practical problem, and ask you to determine the correct answer. Use your experience and judgment to choose the answer you think is best.

## Sample Questions

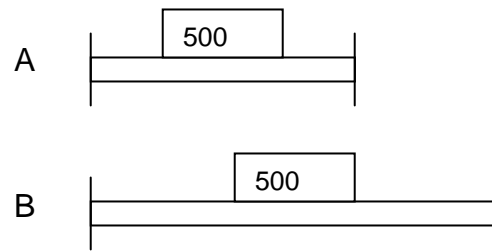
For sample questions 1-4, examine the pictures to the right of each question.

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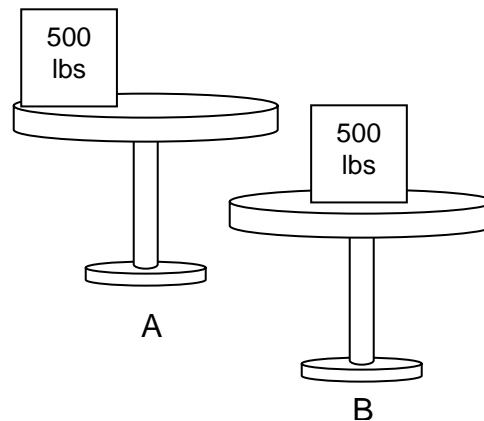
- 1 Which of the following two objects would be easier to tip over, assuming that both are made of the same material and weigh the same? (If no difference, mark C.)



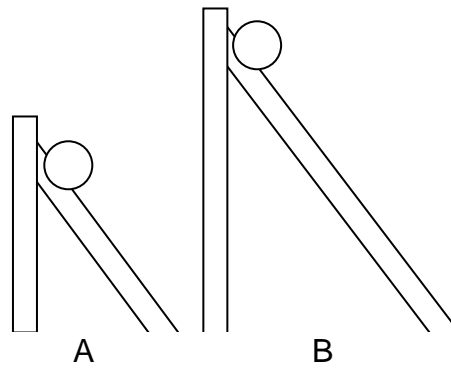
- 2 Which beam is more likely to break, assuming that both beams are of equal thickness and are made of the same material? (If no difference, mark C.)



- 3 Which table is more likely to tip over, assuming that both tables are made of the same material, are the same size, and weigh the same? (If no difference, mark C.)



- 4 Which ball will be rolling faster when it reaches the bottom of the slide, assuming that both balls are made of the same material, are the same size, and weigh the same? (If no difference, mark C.)



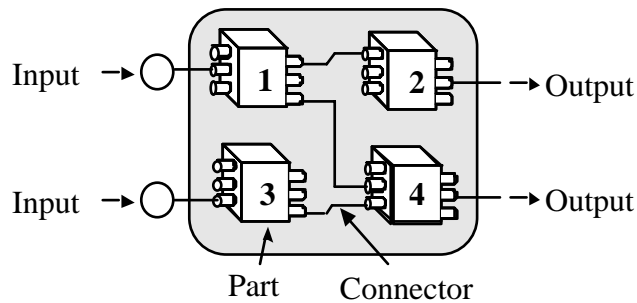
## **Answers**

1. B   2. B   3. A   4. B

## Systems Troubleshooting Instructions

This section contains sample items for the Systems Troubleshooting Test. The items contained in this section are meant to provide individuals with an idea of what to expect when they take the actual Systems Troubleshooting Test.

This is a test of your ability to diagnose problems that can occur in systems. The test contains five systems, each followed by several questions. The "systems" are a collection of interconnected parts. Here is what a system looks like:



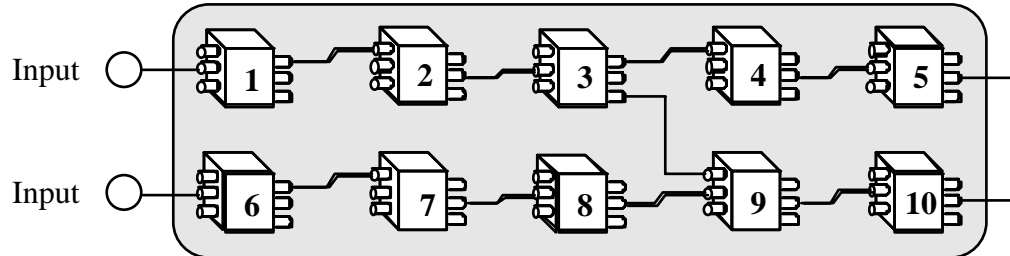
A "part" in a system can receive input signals or can output signals to another part through a connector. Input signals enter on the left side of a part and output signals leave on the right side of a part. In this test, your task will be to figure out why a system is not working or what will happen to the system if a part fails. You will need to use the two rules below to answer the test questions:

Rule 1: A part will output a signal only if it receives an input signal from all other parts to which it is connected on its left side.

Rule 2: If a part fails, then it will not output a signal to any other parts to which it is connected on its right side.

## Sample Questions

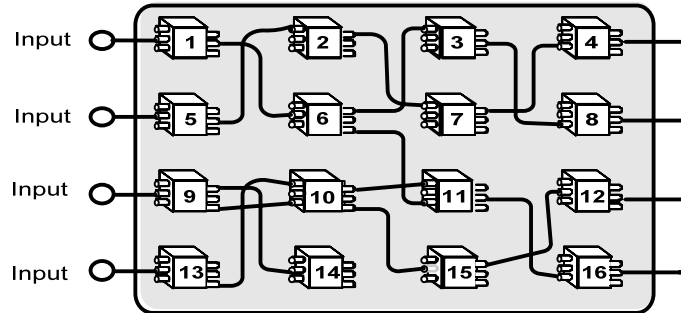
Use the diagram below to answer sample questions 1-2.



- 
- 1 Part 5 has an output signal but Part 10 doesn't. Which of the following could be the failed part?
- A Part 1
  - B Part 3
  - C Part 4
  - D Part 7
- 

- 
- 2 Which of the following would not have an output signal if Part 3 suddenly failed?
- A Part 1
  - B Part 4
  - C Part 6
  - D Part 8
-

Use the diagram below to answer sample questions 3-4.



- 
- 3** Parts 4 and 12 have output signals but Parts 8 and 16 don't. Which of the following could be the failed part?
- A Part 2
  - B Part 5
  - C Part 6
  - D Part 10
- 

- 
- 4** Which of the following could not have an output signal if Part 10 suddenly failed?
- A Part 7
  - B Part 12
  - C Part 13
  - D Part 14
-

## **Answers**

1. D   2. B   3. C   4. B