

WorkKeys Minimum Test Score for Specific Programs at WCCC

Program	Applied Math	Graphic Literacy	Workplace Documents
Advanced Manufacturing	4	4	4
Cosmetology/Cosmetology Management	4	4	4
Electrical Power Line Mechanic (EPLM)	3	4	4
Emergency Medical Technician/Firefighter I	4	4	4
Heating, Ventilation and Air Conditioning Technician (HVAC)	4	4	4
Heavy Equipment and Site Construction (HEO)/CDL A	3	4	4
Information Technology	4	4	4
Medical (Medical Assistant; Dental Assisting; Phlebotomy; Pharmacy Technician)	4	4	4
STNA	3	3	3
Welding Technician/AWS Certified	4	4	4

*****Adult Diploma Students must have a minimum total of 14 points across the 3 tests*****

All WCCC career-development students (including STNA) must score at the WorkKeys level required for their program **BEFORE ENTERING THE CLASS**. Students will be wait-listed until they have scored at the required level. Additional testing is \$25 per section for each re-take.

Skills Upgrade Classes

Students may attend ASPIRE Skills Upgrade classes for help in improving math, reading, and/or writing skills. Presently, instruction and materials are supplied to students FREE of charge. Students are asked to bring their own pencils and paper to class. For more information on scheduling and class locations, please call Warren County ASPIRE at 513-695-2987.

Prepare for the WorkKeys 2.0 Tests - Free!

Call or text the Aspire WorkKeys instructor at 937-317-0033 to sign up for free classes, online lessons, and/or practice tests.

Online Practice Test – Free!

Free online WorkKeys practice tests are available at www.ohiomeansjobs.com. (Search: WorkKeys)

Ready to schedule to take the test?

Contact the WCCC Testing Center Proctor Roe.Schroeder@mywccc.org by email or by phone at 513-932-8145.



3525 North State Route 48
Lebanon OH 45036

ACT WORKKEYS 2.0 SAMPLE QUESTIONS

APPLIED MATH

Number of Items: 34

Test Length: 55 minutes

The Applied Math assessment measures critical thinking, mathematical reasoning, and problem solving techniques for situations that actually occur in today's workplace.

(Calculators, formula sheets, scratch paper and pencil will be provided).

Level 3 Skills

- Solve problems that require one type of mathematical operation.
- Convert a familiar fraction (such as $\frac{1}{2}$ or $\frac{1}{4}$ to a decimal) and convert from a decimal to a common fraction; OR convert between decimals to percentages (such as 0.75 to 75%).
- Convert between familiar units of money and time (such as one hour equals 60 minutes or $\frac{1}{2}$ of a dollar equals \$0.50).
- Add the prices of several products together to find the total, and calculate the correct change for a customer.

Level 3 Applied Math Sample Question

In your job as a cashier, a customer gives you a \$20 bill to pay for a can of coffee that costs \$3.84. How much change should you give back?

1. \$15.26
2. \$16.16
3. \$16.26
4. \$16.84
5. \$17.16

Level 4 Skills

- Solve problems that require one or two mathematical operations.
- Calculate the average or mean of a set of numbers (such as $(10+11+12) / 3$)). For this, they may use whole numbers and decimals.
- Figure out simple ratios (such as $\frac{3}{4}$), simple proportions (such as 10/100 cases), or rates (such as 10 mph).
- Add commonly known fractions, decimals, or percentages (such as $\frac{1}{2}$, 0.75, or 25%).
- Add or subtract fractions with a common denominator (such as $\frac{1}{4} + \frac{3}{4} + \frac{1}{4}$).
- Multiply a mixed number (such as $12 \frac{1}{8}$) by a whole number or a decimal.
- Put information in the right order before performing calculations.

Level 4 Applied Math Sample Question

Over the last 5 days, you made the following numbers of sales calls: 8, 7, 9, 5, and 7. On the average, how many calls did you make each day?

1. 5.8
2. 7.0
3. 7.2
4. 9.0
5. 36.0

Level 5 Skills

- Decide what information, calculations, or unit conversions to use to find the answer to a problem.
- Add and subtract fractions with unlike denominators (such as $\frac{1}{2} - \frac{1}{4}$).
- Convert units within or between systems of measurement (e.g., time, measurement, quantity) where the conversion factor is given either in the problem or in the formula sheet.
- Solve problems that require mathematical operations using mixed units (such as adding 6 feet and 4 inches to 3 feet and 10 inches, or subtracting 4 hours and 30 minutes from 3.5 hours).
- Identify the best deal using one or two step calculations that meet the stated conditions.
- Calculate the perimeter or circumference of a basic shape, or calculate the area of a basic shape.
- Calculate a given percentage of a given number and then use that percentage to find the solution to a problem (e.g., find the percentage and then use it to find the discount, markup, or tax).
- Identify where a mistake occurred in a calculation (such as identifying the row in a spreadsheet where a problem occurred).

Level 5 Applied Math Sample Question

You work in a furniture repair shop and are taking apart an old table to refinish it. You are trying to remove a bolt with a wrench. You tried a wrench size of $\frac{1}{2}$ inch but found that it was slightly too big. Your wrenches are sized in $\frac{1}{16}$ -inch increments. What size wrench should you try next?

1. $\frac{1}{32}$
2. $\frac{3}{8}$
3. $\frac{7}{16}$
4. $\frac{9}{16}$
5. $\frac{5}{8}$

Level 6 Skills

- Use fractions with unlike denominators and calculate reverse percentages.
- Convert units within or between systems of measurement (e.g., time, measurement, and quantity) where multiple-step conversions are required and the formulas are provided such as converting from kilometers to meters to feet.
- Identify why a mistake occurred in a solution.
- Find the best deal from a group of solutions and then use the result for another calculation.
- Find the area of basic shapes when it may be necessary to rearrange a formula, convert units of measurement in the calculations, or use the result in further calculations.
- Calculate the volume of rectangular solids (e.g., cubes).
- Calculate rates, production rates, rate by time (such as, production rate is 59 cups produced per hour, how many will be produced in an 8 hour shift).
- Identify the correct equation for solving a problem.

Level 6 Applied Math Sample Question

A chemist has a certain number of containers of liquid. Each container is labeled with the number of fluid ounces it contains. The chemist is assigning a lab assistant the task of labeling each container with the number of cups of liquid it contains

Which of the following formulas should the chemist give to the lab assistant to use for the task?

1. $_ \text{ cups} = 0.125 \times (\text{fluid ounces})$
2. $_ \text{ cups} = 8 \div (\text{fluid ounces})$
3. $_ \text{ cups} = 8 \times (\text{fluid ounces})$
4. $_ \text{ cups} = 8 + (\text{fluid ounces})$
5. $_ \text{ cups} = (\text{fluid ounces}) - 8$

Level 7 Skills

- Solve problems that include ratios, rates, or proportions with at least one of the quantities is a fraction.
- Identify the reason for a mistake.
- Convert between units of measurement using fractions, mixed numbers, decimals, and percentages.
- Calculate volumes of spheres, cylinders, or cones.
- Calculate the volume when it may be necessary to rearrange the formula, convert units of measurement in calculations, or use the result in further calculations.
- Set up and manipulate ratios, rates, or proportions where at least one of the quantities is a fraction.
- Determine the better economic value of several alternatives by using graphics, or determining the percentage difference, or by determining unit cost.
- Apply basic statistical concepts for example calculate the weighted mean, interpret measures of central tendency, or interpret measure of spread and tolerance.

Level 7 Applied Math Sample Question

The farm where you just started working has a vertical cylindrical oil tank that is 2.5 feet across on the inside. The depth of the oil in the tank is 2 feet. If 1 cubic foot of space holds 7.48 gallons, about how many gallons of oil are left in the tank?

1. 37
2. 59
3. 73
4. 230
5. 294

GRAPHIC LITERACY

Number of Items: 38

Test Length: 55 minutes

The Graphic Literacy assessment measures skills that individuals use when they read and comprehend graphical materials to solve work-related problems.

Level 3 Graphic Literacy Skills

- Locate and find information
- Identify the next step in a process

Level 3 Graphic Literacy Sample Question

Request for Information (RFI) Log

RFI #	Request date	Title	Status	Response date
RFI-0393	02/06	Mechanical Room Duct Sleeve	Canceled	
RFI-0392	02/05	Bathroom Ceilings	In Review	02/06
RFI-0391	02/04	AHU Alarm Monitoring Clarification	New Item	
RFI-0890	02/03	Union Station Ceiling Conflict	Closed	02/03
RFI-0389	02/02	AHU Smoke Damper Control	Canceled	
RFI-0388	02/02	URGENT: Terminal Unit Accessories	Canceled	
RFI-0387	01/30	Base in Vestibule	Closed	01/30
RFI-0386	01/29	Hardware for Existing Door	Pending	01/30
RFI-0385	01/28	Door	Pending	01/29
RFI-0384	01/28	Union Station Hood Fire Protection	Closed	01/29

On which date was RFI-0386 requested?

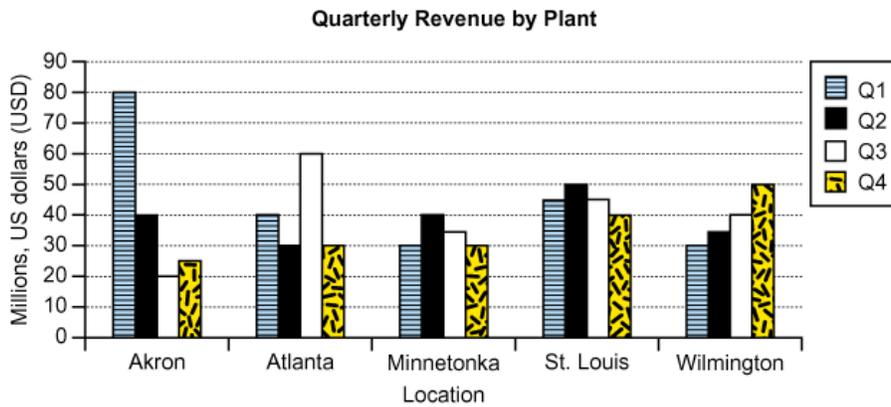
1. 1/28
2. 1/29
3. 1/30
4. 2/2

Level 4 Graphic Literacy Skills

- Locate information in a graphic using information found in a second graphic
- Compare two or more pieces of information
- Identify a trend/pattern/relationship
- Make an inference or decision
- Identify the graphic that accurately represents the data

Level 4 Graphic Literacy Sample Question

A financial analyst reviews one year's quarterly revenue numbers to plan for future business expansions.



The company would like to reallocate funds for plant improvement by selecting the location that had the most quarters under 40 million dollars in revenue. Which location should receive the improvement funds?

- A. Akron
- B. Atlanta
- C. Minnetonka
- D. St. Louis

Level 5 Graphic Literacy Skills

- Locate information in a graphic using information found in another graphic
- Identify and interpret a trend/pattern/relationship
- Make and justify an inference or decision
- Identify the graphic that accurately represents the data
- Compare two or more trends/patterns/relationships
- Identify the most effective graphic given a defined purpose

Level 5 Graphic Literacy Sample Question

A drill press operator who works with wood, plastic, aluminum, and steel uses drill speed recommendation tables to complete orders.

Drill Speeds (Recommended RPM)—Standard twist bit*				
Hole diameter	Wood	Plastic	Aluminum	Steel
1/16 to 3/16 inch	3000	2500	3000	3000
1/4 to 3/8 inch	3000	2000	2500	1000
7/16 to 5/8 inch	1500	1500	1500	600
11/16 to 1 inch	750	N/R	1000	350

Drill Speeds (Recommended RPM)—Forstner bit*				
Hole diameter	Softwood	Hardwood	Aluminum	Plastic
1/4 to 3/8 inch	2400	700	N/R	N/R
1/2 to 5/8 inch	2400	500	N/R	250
3/4 to 1 inch	1500	500	N/R	250
1 1/8 to 1 1/4 inch	1000	250	N/R	250
1 3/8 to 2 inches	500	250	N/R	N/R

N/R = Not Recommended

* = Do Not Exceed Recommended RPM

Pulley #	Drill Speed (RPM)
1	250
2	400
3	700
4	1200
5	1800
6	2400
7	3000
8	3700

An order requests four holes to be drilled into a piece of aluminum. Each hole is 5/8-inch in diameter. Which pulley would provide maximum speed without exceeding the recommended RPM for this job?

- A. Pulley #1
- B. Pulley #4
- C. Pulley #5
- D. Pulley #6

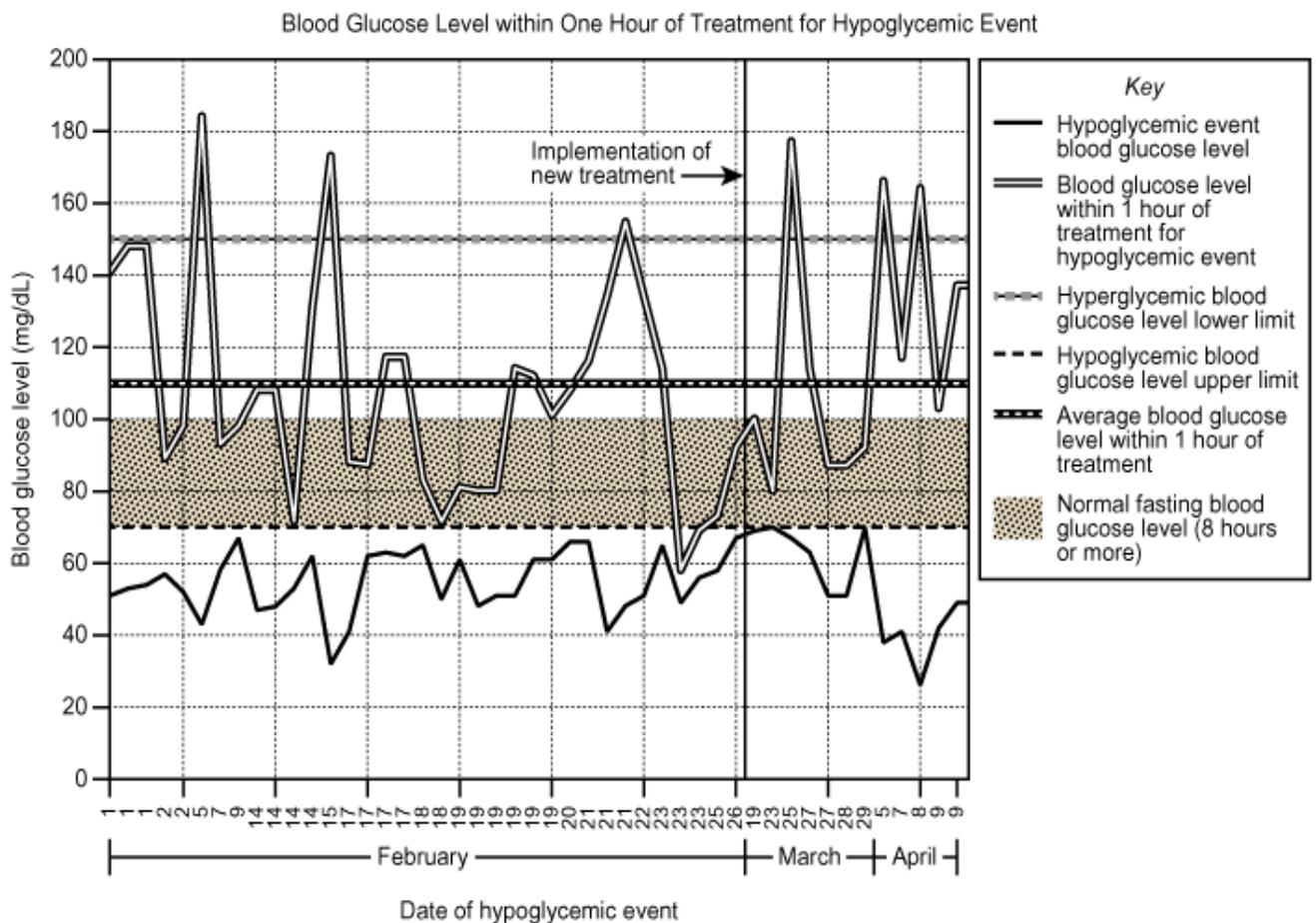
Level 6 Graphic Literacy Skills

- Locate information in a graphic using information found in another graphic
- Interpret trends/patterns/relationships
- Make a reasonable inference or decision based on one graphic after finding information in another graphic
- Justify a decision using evidence found in a graphic
- Identify the graphic that accurately represents the data
- Justify an inference or decision based on information
- Identify and justify the most effective graphic given a defined purpose

Level 6 Graphic Literacy Sample Question

A nurse manager uses data to study the results of a new treatment.

Level 6 Graphic Literacy



What was the approximate highest blood glucose level, in mg/dL, within 1 hour of treatment for a hypoglycemic event on February 19?

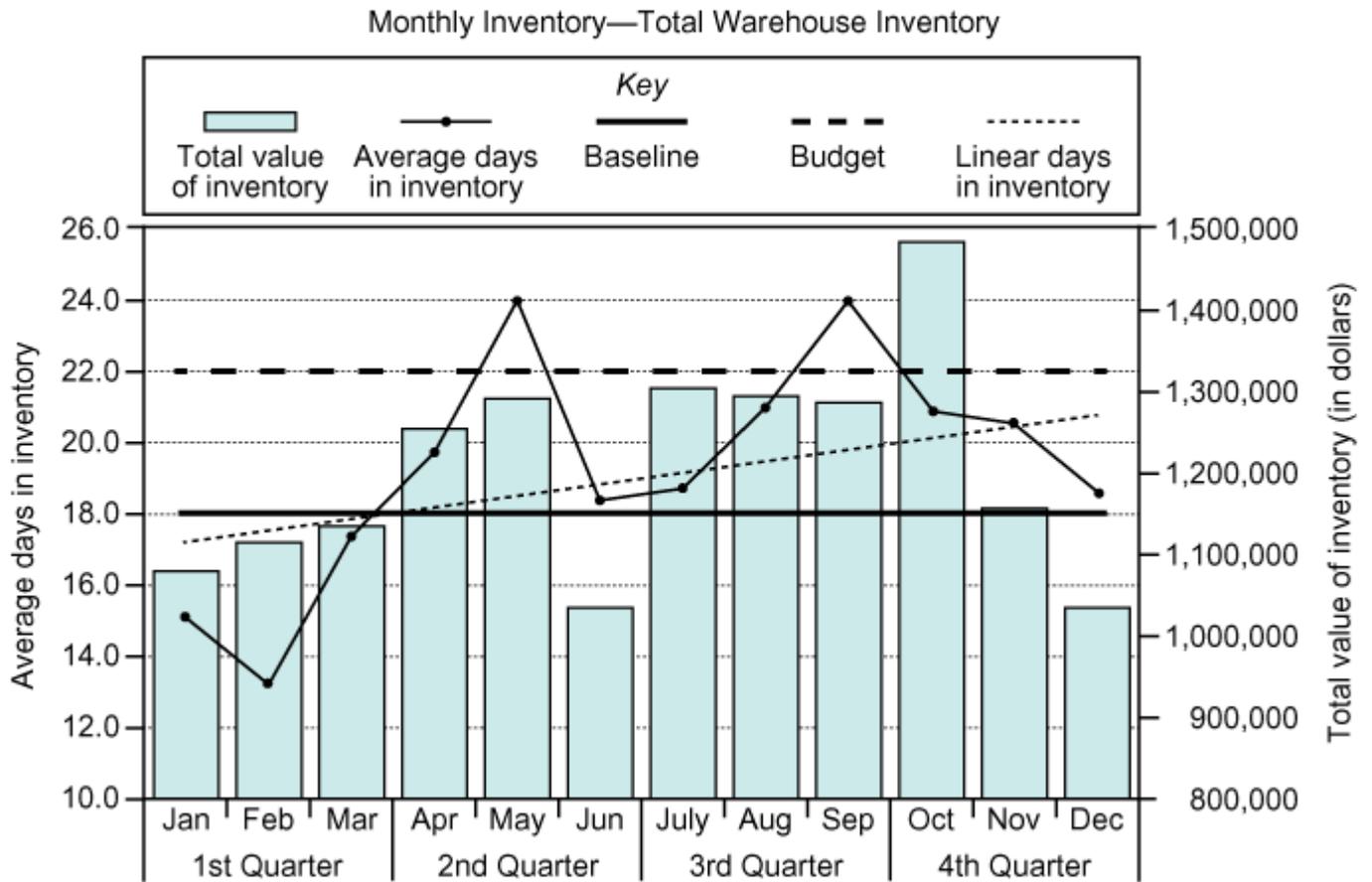
- A. 61
- B. 82
- C. 115
- D. 182

Level 7 Graphic Literacy Skills

- Interpret trends/patterns/relationships
- Make a reasonable inference or decision based on one graphic after finding information in another graphic
- Justify a decision using evidence found in a graphic
- Identify the graphic that accurately represents the data
- Justify an inference or decision based on information
- Identify and justify the most effective graphic given a defined purpose

Level 7 Graphic Literacy Sample Question

A manager tracks the total value of warehouse inventory and the average number of days an item spends in inventory before being sold each month.



Which month reflects an increase in total value of inventory from the prior month with the largest drop in average days in inventory?

- December
- February
- June
- October

WORKPLACE DOCUMENTS

Level 3 Workplace Document Skills

- Identify the main idea
- Identify specific details
- Choose when to perform a step in a series of shot steps
- Apply information/instructions to a situation that is the same as the situation described in the document

Level 3 Workplace Document Sample Question

ATTENTION CASHIERS:

All store employees will now get 20% off the price of clothes they buy here. Please follow the new directions listed below.

Selling clothes to employees

- Ask to see the employee's store identification card.
- Enter the employee's department code number into the cash register.
- Use the cash register to take 20% off the price. Then push the sales tax button.
- Write your initials on the sales receipt.
- Sell clothes to employees during store hours only.

Accepting clothing returns from employees

- Employees receive a store credit certificate for clothes they return to the store.
- Store credit certificates are next to the gift certificates.
- Employees may not get a cash refund for clothes they return to the store.

You are a cashier. According to the notice shown, what should you write on a store employee's receipt?

- A. The employee's identification number
- B. The employee's department number
- C. The amount of sales tax
- D. The 20% discount price
- E. Your initials

Level 4 Workplace Document Skills

- Identify the main idea
- Identify specific details
- Use the information in the document to figure out the meanings of words or phrases that are not defined for them
- Choose when to perform a step in a series of steps
- Apply information/instructions to a situation that is the same as the situation described in the document
- Choose what to do when changing conditions call for a different action

Level 4 Workplace Document Sample Question

INSTRUCTIONS TO SORTING DEPARTMENT: SPECIAL PROJECT TO FIX ORDER #888

Five long, blue plastic bins have been placed over by the overhead door. Piled on the other side of this room, near the time clock, are several thousand steel rods of varying lengths. All of those rods must be sorted by length and placed in the bins.

Bin "1" is for rods that are four to five meters long.

Bin "2" is for rods that have a length of over five meters, up to six meters.

Bin "3" is for rods that have a length of over six meters, up to eight meters.

Bin "4" is for rods that have a length of over eight meters, up to ten meters.

Bin "5" is for warped or unsmoothed rods. These will not be accepted.

If these rods are not all sorted correctly, the customer will reject the order. We cannot afford to let that happen again. Work as quickly as you can because Friday is the deadline for delivery of the order.

According to the instructions shown, what is a condition for project success other than delivery on time?

- A. All rods must be sorted by both length and diameter.
- B. Rods eleven meters long must be leaned against the overhead door.
- C. The customer does not want rods that are warped.
- D. The five-meter-long rods must go in Bin 2.
- E. The ten-meter-long rods must arrive at the customer in Bin 4.

Level 5 Workplace Document Skills

- Identify specific details
- Infer the meaning of a word or phrase from context
- Apply information/instructions to a new situation that is similar to the one described in the document while considering changing conditions
- Apply information/instructions that include conditions to situations described in the document
- Identify the appropriate meaning of an acronym, jargon, or technical term defined in the document
- Apply technical terms and jargon to stated situations
- Make inferences to accomplish a goal

Level 5 Workplace Document Sample Question

Goldberg's Auto Parts is served by more than fifty different accounts, each with its own sales representative, company name, corporate address, and shipping address. As a shipping and receiving clerk at Goldberg's, you are required to return defective merchandise to the manufacturer.

Standard procedure for returning an item begins with your written request to the company for authorization. Always send the request to the corporate address, not to the shipping address. Unless the company file folder contains a form for this procedure, write a business letter to the manufacturer supplying the item's stock number, cost, and invoice number; the date it was received; and the reason for its return. The manufacturer's reply will include an authorization number from the sales representative, a sticker for you to place on the outside of the box to identify it as an authorized return, and a closing date for the company's acceptance of the returned item. If you do not attach the provided sticker, your returned box will be refused by the manufacturer as unauthorized, and you will need to obtain a new letter, authorization, sticker, and closing date. Always send a returned box to the shipping address, not to the company's corporate address.

Level 5 Workplace Document Sample Question

According to the policy shown, what should you do if you lose an authorization sticker?

- A. Send a request for a return authorization along with the rejected part directly to the manufacturer's shipping address.
- B. Send a request for a return authorization along with the rejected part directly to the manufacturer's corporate address.
- C. Repeat the standard procedure to obtain a new letter, authorization, sticker, and closing date.
- D. Use a sticker from another company's folder
- E. Send the rejected part to your sales representative.

Level 6 Workplace Document Skills

- Infer implied details
- Infer the meaning of an acronym, jargon, or technical term from context
- Apply information/instructions to a situation not directly described in the document or to a completely new situation
- Apply principles inferred in a passage to a situation not directly described in the document or to a completely new situation
- Identify the rationale behind an entire document or a section of a document

Level 6 Workplace Documents Sample Question

From: J. Kimura, Senior Vice President of Molten Metals, Inc.

To: All email users at Molten Metals, Inc.

To permit our employees to communicate directly with one another as well as with vendors and customers, Molten Metals, Inc. provides a network of e-mail accounts. Access to e-mail is at the sole discretion of Molten Metals, Inc., and we will determine who is to be so empowered. Under President Duarte's leadership, all messages sent and received (even those intended as personal) are treated as business messages. Molten Metals, Inc. has the capability to and reserves the right to access, review, copy, and delete any messages sent, received, or stored on the company email server. Molten Metals, Inc. will disclose these messages to any party (inside or outside the company) it deems appropriate. Employees should treat this server as a constantly reviewed, shared file stored in the system. Due to the reduced human effort required to redistribute electronic information, a greater degree of caution must be exercised by employees transmitting MM, Inc. confidential information using company email accounts. Confidential information belonging to MM, Inc. is important to our independence and should never be transmitted or forwarded to persons or companies not authorized to receive that information. Likewise, it should not be sent or forwarded to other employees inside the company who do not need to know that information. MM, Inc. strongly discourages the storage of large numbers of e-mail messages for a number of reasons. First, because e-mail messages frequently contain company confidential information, it is good to limit the number of such messages to protect the company's information. Second, retention of messages fills up large amounts of storage space on the email server and personal hard disks, and can slow down the performance of both the network and individual personal computers. Finally, in the event that the company needs to search the network server, backup tapes, or individual hard disks for genuinely important documents, the fewer documents it has to search through, the more economical the search will be. Therefore, employees are to delete as soon as possible any e-mail messages they send or receive.

Based on the memo shown, personal messages transmitted or received using Molten Metals, Inc. e-mail accounts will be:

- A. Automatically deleted upon detection.
- B. Avoided by server staff to save company time.
- C. Forwarded to private, personal accounts.
- D. Grounds for personnel actions.
- E. Treated no differently from other messages.

Level 7 Workplace Document Skills

- Infer implied details
- Infer the meaning of an acronym, jargon, or technical term from context
- Apply information/instructions to a situation not directly described in the document or to a completely new situation
- Apply principles inferred in a passage to a situation not directly described in the document or to a completely new situation
- Identify the rationale behind an entire document or a section of a document

Level 7 Workplace Document Sample Question

Confidentiality

Client and Consultant agree to maintain the confidentiality of each other's trade secrets and any confidential business information disclosed during the term of this agreement, except as authorized by the party that disclosed the information. When the consulting services have been completed, the parties will return all confidential materials and equipment provided during the term of this agreement, unless keeping the materials is authorized by the party that provided them. Each party is responsible for identifying all trade secrets, confidential business information, and confidential materials. Nothing in this or in any other agreement will prevent any party from using or disclosing confidential information to the extent necessary to carry out the responsibilities in this agreement; or will restrict any party's use or disclosure of information that is or becomes publicly known through lawful means, that was rightfully in that party's possession or part of that party's general knowledge prior to the term of this agreement, or that is disclosed to that party without confidential or proprietary restrictions by a person who rightfully possesses the information; or will prevent any party from responding to a lawful subpoena or court order. Client agrees that Consultant will neither use nor disclose the trade secrets, confidential information, or confidential materials of third parties, and Client will neither ask nor require Consultant to do so.

Miscellaneous Provisions

All agreements and understandings between the parties concerning the subject matter of this agreement are embodied in this agreement and any proposal to which the parties agreed. It is understood and agreed by both parties that there are no oral or other agreements or understanding between the parties affecting this agreement. This agreement shall supersede all prior and contemporaneous agreements and understandings between the parties, with respect to any subject covered by this agreement, except as otherwise provided in this agreement. This agreement may not be amended except in writing by an instrument, signed by each of the parties. No failure or delay in exercising any right under this agreement shall operate as a waiver thereof. Neither party shall assign or otherwise transfer any rights or obligations under this agreement without the written consent of the other party. Subject to the foregoing agreement, this agreement shall be binding upon and shall ensure to the benefit of the parties' respective heirs, successors, attorneys, and permitted assignees. If any provision of this agreement, or its application to any person, place, or circumstance, is held by an arbitrator or a court of competent jurisdiction to be invalid, unenforceable, or void, such provision shall be enforced to the greatest extent permitted by law, and the remainder of this agreement and such provision as applied to the other persons, places, and circumstances shall remain in full force and effect. This agreement shall not become binding on either party until both parties execute it.

Level 7 Workplace Documents Sample Question

You have hired a consultant to work with your firm. Based on the agreement shown, what will happen if the consultant's business is taken over by a major competitor?

- A. The agreements will confidentially go into arbitration.
- B. The agreement will not be enforceable and is void.
- C. The consultant is bound by the agreement.
- D. The obligations will pass to the new owner.
- E. You must renegotiate the agreement with the new owner.