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IDENTIFIERS Military Curriculum Project; \*Restaurant Management

ABSTRACT

These reading materials, self-test reviews, and examination for part 1 of a secondary-postsecondary subcourse in club management operations are one of a number of military-developed curriculum packages selected for adaptation to vocational instruction and curriculum development in civilian settings. Five lessons focusing on two topics are included in this part of the subcourse: (1) portion control in the kitchen and dining room and (2) functions and principles of food cost control. Also included is a panel book of forms and supplementary information. (LRA)

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This military technical training course has been selected and adapted by The Center for Vocational Education for "Trial Implementation of a Model System to Provide Military Curriculum Materials for Use in Vocational and Technical Education," a project sponsored by the Bureau of Occupational and Adult Education, U.S. Department of Health, Education, and Welfare.

## MILITARY CURRICULUM MATERIALS

The military-developed curriculum materials in this course package were selected by the National Center for Research in Vocational Education Military Curriculum Project for dissemination to the six regional Curriculum Coordination Centers and other instructional materials agencies. The purpose of disseminating these courses was to make curriculum materials developed by the military more accessible to vocational educators in the civilian setting.

The course materials were acquired, evaluated by project staff and practitioners in the field, and prepared for dissemination. Materials which were specific to the military were deleted, copyrighted materials were either omitted or approval for their use was obtained. These course packages contain curriculum resource materials which can be adapted to support vocational instruction and curriculum development.

# The National Center Mission Statement

The National Center for Research in Vocational Education's mission is to increase the ability of diverse agencies, institutions, and organizations to solve educational problems relating to individual career planning, preparation, and progression. The National Center fulfills its mission by:

- Generating knowledge through research
- Developing educational programs and products
- Evaluating individual program needs and outcomes
- Installing educational programs and products
- Operating information systems and services
- Conducting leadership development and training programs

## FOR FURTHER INFORMATION ABOUT Military Curriculum Materials

### WRITE OR CALL

Program Information Office  
The National Center for Research in Vocational  
Education  
The Ohio State University  
1960 Kenny Road, Columbus, Ohio 43210  
Telephone: 614/486-3655 or Toll Free 800/  
848-4815 within the continental U.S.  
(except Ohio)



# Military Curriculum Materials for Vocational and Technical Education

Information and Field  
Services Division

The National Center for Research  
in Vocational Education



# Military Curriculum Materials for Vocational and Technical Education

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Services Division

The National Center for Research  
in Vocational Education



# Military Curriculum Materials Dissemination Is . . .

an activity to increase the accessibility of military-developed curriculum materials to vocational and technical educators.

This project, funded by the U.S. Office of Education, includes the identification and acquisition of curriculum materials in print form from the Coast Guard, Air Force, Army, Marine Corps and Navy.

Access to military curriculum materials is provided through a "Joint Memorandum of Understanding" between the U.S. Office of Education and the Department of Defense.

The acquired materials are reviewed by staff and subject matter specialists, and courses deemed applicable to vocational and technical education are selected for dissemination.

The National Center for Research in Vocational Education is the U.S. Office of Education's designated representative to acquire the materials and conduct the project activities.

## Project Staff:

Wesley E. Budke, Ph.D., Director  
National Center Clearinghouse

Shirley A. Chase, Ph.D.  
Project Director

# What Materials Are Available?

One hundred twenty courses on microfiche (thirteen in paper form) and descriptions of each have been provided to the vocational Curriculum Coordination Centers and other instructional materials agencies for dissemination.

Course materials include programmed instruction, curriculum outlines, instructor guides, student workbooks and technical manuals.

The 120 courses represent the following sixteen vocational subject areas:

Agriculture	Food Service
Aviation	Health
Building & Construction	Heating & Air Conditioning
Trades	Machine Shop Management & Supervision
Clerical Occupations	Meteorology & Navigation
Communications	Photography
Drafting	Public Service
Electronics	
Engine Mechanics	

The number of courses and the subject areas represented will expand as additional materials with application to vocational and technical education are identified and selected for dissemination.

# How Can These Materials Be Obtained?

Contact the Curriculum Coordination Center in your region for information on obtaining materials (e.g., availability and cost). They will respond to your request directly or refer you to an instructional materials agency closer to you.

## CURRICULUM COORDINATION CENTERS

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Developed by:

United States Army

Development and  
Review Dates:

January 1974

Occupational Area:

Food Service

Print Pages:

156

Availability:

ERIC  
National Center Clearinghouse

Suggested Background:

None

Target Audiences:

Grades 10 - adult

Organization of Materials:

Lesson objectives, text readings, self-tests, answers, examination

Type of Instruction:

Individualized, self-paced, programmed

Type of Materials:	No. of Pages:	Average Completion Time:
Sequence A - Open Mess Food Cost Control: Portion Control in Kitchen and Dining Room	49	Flexible
Sequence B - Open Mess Food Cost Control: Functions and Principles of Food Cost Control	53	Flexible
Panel Book - Open Mess Food Cost Control	28	Flexible
Examination	14	Flexible

Supplementary Materials Required:

None



THE NATIONAL CENTER  
FOR RESEARCH IN VOCATIONAL EDUCATION



The Ohio State University

1960 Kenny Road  
Columbus, Ohio 43210  
(614) 486-3655

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Course Description:

This subcourse is of interest to all food service personnel. It is of particular interest to supervisory personnel involved in or anticipating involvement in club restaurant operations. This subcourse will provide the student with a skill in applying food cost controls and procedures for a club restaurant. In addition, the student will be able to train and supervise others in these operations. This subcourse consists of 5 lessons and an examination totaling 9 credit hours of correspondence course study.

- Lesson 1 - Portion Control in Kitchen and Dining Room, Part I - covers types of menus used in open mess operations, specifies features of the portion control system, identifies reasons for establishing standard portion sizes, and lists control factors in establishing portion sizes.
- Lesson 2 - Portion Control in Kitchen and Dining Room, Part II - Covers procedures in establishing standard portion sizes, advantages of standard recipes, food production planning, and computations of a recipe.
- Lesson 3 - Functions and Principles of Food Cost Control, Part I - examines the food cost control system, and the purchasing area such as types of purchasing, main factors to consider when purchasing food, and determining the percentage of yield as it pertains to food prepared for serving.
- Lesson 4 - Functions and Principles of Food Cost Control, Part II - discusses cost controls in receiving, storing, issuing, producing, inventorying, and selling food items.
- Lesson 5 - Review

Each volume contains reading material, self-test reviews, and a final examination with no answers included. Also included is a Panel Book of forms and supplementary information. All panels are numbered and will be referred to by number as necessary. This course is designed for student self-study and includes basic as well as supervisory materials.

CLUB RESTAURANT OPERATIONS, PART I  
QM-371-1

CORRESPONDENCE COURSE

TABLE OF CONTENTS

<u>Volume</u>	<u>Page</u>
Sequence A - Open Mess Food Cost Control: Portion Control in Kitchen and Dining Room	9
Sequence B - Open Mess Food Cost Control: Functions and Principles of Food Cost Control	59
Panel Book - Open Mess Food Cost Control	113
Examination	142

INSTRUCTION BOOKLET  
U.S. ARMY QUARTERMASTER SCHOOL  
CORRESPONDENCE SUBCOURSE

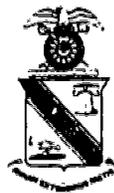
**QM-371-1**  
**CLUB RESTAURANT OPERATIONS**  
**PART I**

**STUDY MATERIAL:**

161 PT, Sequence A  
161 PT, Sequence B  
161 PB

**ATTENTION**

*Please check the study material you received against that listed above.  
If any discrepancy exists, notify the Department of Army Wide Training  
Support of the Quartermaster School immediately.*



Prepared by  
United States Army Quartermaster School  
Fort Lee, Virginia 23801  
Supply Training Center of the Army School System

JANUARY 1974

QM 371-1

Credit Hours: 9

## SUBCOURSE CONTENTS

	Credit Hours	*Booklet
LESSON 1 Portion Control in Kitchen and Dining Room, Part I	1	161 PT, Sequence A (Frames A1-A24)
LESSON 2 Portion Control in Kitchen and Dining Room, Part II	2	161 PT, Sequence A (Frames A25-A69)
LESSON 3 Functions and Principles of Food Cost Control, Part I	2	161 PT, Sequence B (Frames B1-B39)
LESSON 4 Functions and Principles of Food Cost Control, Part II	2	161 PT, Sequence B (Frames B40-B78)
LESSON 5 Review	1	161 PT, Sequence A & B (Frames A70-A87, B79-B101)
EXAMINATION	1	EXAM. 371-1

**IMPORTANT!**

Each programmed text (PT), in conjunction with appropriate supplementary materials, contains all information required to complete two lessons. Complete the lessons for this subcourse in the sequence shown above.

\* General title for all programmed texts (PT's) is Open Mess Food Cost Control. The panel book, 161 PB, should be used in conjunction with the PT's.

**CLUB RESTAURANT OPERATIONS, PART I****SECTION I****INTRODUCTION**

1. **SCOPE.** This subcourse covers types of menus, portion control, and the food cost control system for club restaurant operations. Included are procedures for establishing standard portion sizes, purpose and advantages of standard recipes, recipe food cost card computations, determination of portion selling price and percentage of yield, and cost controls in purchasing, receiving, storing, issuing, producing, inventorying, and selling food items.

2. **APPLICABILITY.** This subcourse is of interest to all food service personnel. It is of particular interest to supervisory personnel involved in or anticipating involvement in club restaurant operations. Successfully completed in conjunction with subcourse QM 372, Club Restaurant Operations, Part II, this subcourse will provide the student with a skill in applying food cost controls and procedures for a club restaurant. With this skill, the student will be able to perform the diverse club restaurant operations covered in this subcourse and in subcourse QM 372. In addition, he will be able to train and supervise others in these operations.

3. **COMPOSITION.** This subcourse consists of 5 lessons and an examination totaling 9 credit hours of correspondence course study. (See subcourse contents on page following section II.)

4. **FURTHER STUDY.** Upon successful completion of this subcourse, it is recommended that the student immediately apply to take QM 372, Club Restaurant Operations, Part II.

**SECTION II**  
**ADMINISTRATIVE INSTRUCTIONS**

5. **MATERIALS CHECK.** The student should check carefully to make sure that the subcourse packet includes materials listed on the cover of this instruction booklet, to insure that all pages in texts are readable and that texts are complete, and to insure that the subcourse number on the examination answer form corresponds with the number of this subcourse. Any discrepancy should be noted on a Student Inquiry Sheet (QMFL Form 101) and mailed to the Quartermaster School. The student should make certain that his social security account number, mailing address, and ZIP code number are entered on the address side of the form.

6. **SUBCOURSE ORGANIZATION.** This subcourse uses the following materials:

a. **LESSON TEXTS.** The lessons are organized using programmed instruction materials. These are self-teaching media which provide the student with the opportunity for immediate learning. Each lesson uses a programmed text (PT). Because each PT uses a question-and-answer technique, no lesson exercises are provided. Thus, the student will not be given lesson answer forms to be returned for grading.

b. **EXAMINATION BOOKLET.** Unlike other subcourses, the examination is included in the subcourse packet. The examination booklet should not be opened until all the lessons have been studied.

7. **SUBCOURSE CREDIT.** Upon successful completion of the examination, the student receives credit for the total hours of the subcourse.

8. **EXAMINATION ANSWER FORM.** Quartermaster School students must use the machine-process answer form included in the subcourse packet. The examination will be machine graded; thus, the answer form cannot be bent or mutilated. (See NIPUB 202, Administrative Notice to Correspondence Course Students, for further instructions on the use of the machine process answer form.) Students of other schools should use answer forms provided by their schools.

9. **RECOMMENDED STUDY PROCEDURE.** To derive the greatest benefit from this subcourse, it is recommended that the student adopt the following study procedure:

a. Set aside certain periods for studying, and follow a planned schedule.

b. Read carefully the instructions in the programmed text for lesson 1. These instructions apply to all the programmed texts in this subcourse.

c. For each lesson, study the objectives in the programmed text before starting to work the program. This will assure a firm understanding of what you should be able to do as a result of successful completion of the program.

d. Starting on the first page of each program, complete the program by reading each frame in turn and, if indicated, by answering questions. All answers to questions are based on knowledge you have gained from previous frames. If you have any queries regarding the subject matter, use the Student Inquiry Sheet (QMFL Form 101) for the lesson on which you are working.

e. After you have studied all lessons and feel that you have sufficient knowledge of the subject matter, open the examination booklet. Read all directions first, then study and complete the examination exercises. Bear in mind that your answers must be based on the study assignments, not on your personal experience or on information from other sources.

f. Double check the answer to each examination exercise before indicating your final answer on the answer form. Return the examination answer form to the Quartermaster School.



Army-Fort Lee. Va.



## INTRODUCTION TO PROGRAMED INSTRUCTION

In the past, psychologists, educators, and most other people have accepted the concept that people learn through trial and error. This concept is no longer universally accepted. In fact, many psychologists and educators now believe that students learn better when a minimum amount of error is allowed. Programed instruction is designed to reduce the student's errors by presenting the material in small steps and requiring the student to become involved in what he is learning.

Programed instruction is based on sound learning principles. First, the student must actively participate in the program. Since he must respond to each step of the program, he is learning by doing. In an ordinary classroom situation, where few responses are required, it is easy for the student's mind to wander. Programed instruction, however, demands his attention.

Second, the student can move at his own pace. Since each student is provided with a program, there is no need for everyone to work at the same pace. The faster students can move ahead rapidly without being held back by the slower students. The slower students can take the time they need to learn the subject. There is no embarrassment in either case. Each student is simply learning at his own pace.

Third, the student receives immediate feedback. As soon as a student makes a response, he is told the correct answer. Since the response is usually correct, the student soon gains confidence in himself. Such immediate and frequent feedback is not possible with other methods of instruction.

The program on open mess food cost control is written for open mess stewards, open mess officers, and open mess food advisers who must manage the food cost control procedures in the open mess. They must be able to go into any open mess and detect any errors in the food cost control forms and procedures. They must be able to recognize deficiencies and instruct open mess personnel on corrective measures and correct procedures.

They must also be able to organize their own open mess team and set up correct food cost control practices. The definitions, forms, and accounting procedures necessary to a complete understanding of open mess food cost control are presented.

The programed texts that make up this course are in four volumes, entitled Sequences A through D. There is an accompanying panel book of forms and supplementary information. All panels are numbered and will be referred to by number as necessary.

The student should start at the beginning of the course, Sequence A, and progress until he has completed all four sequences, or volumes. A criterion test (examination) will be given to the student upon completion of the course to test his attainment of the course objectives.

## OPEN MESS FOOD COST CONTROL

## INTRODUCTION TO SEQUENCE A

Portion Control in Kitchen and Dining Room

This programed text explains in detail portion control in kitchen and dining room. We are going to give you information in small segments and ask you to participate at every point during the program by answering questions, filling in blanks, or making a selection from one of several answers. By taking an active part, we believe that you will find the material more interesting and will remember it better. This book is not a graded examination. It is designed to help you to learn.

There is no hidden "gimmick" in this program. We will tell you at the beginning of each sequence exactly what you are expected to learn from that sequence. We will provide a self-test review at the end of each sequence. The final examination questions will be based on the objectives that precede each sequence. Before the final examination, study the objectives and the review section of each sequence. This first volume contains Sequence A.

Please do not try to read this program as you would an ordinary book. Its sequences correspond to a chapter or lesson in an ordinary book. Each sequence is made up of frames, or boxes, two to a page, that contain an element of information we want you to learn. Frames are numbered consecutively within each sequence. For example, all frame numbers in Sequence A are preceded by an A.

To read each sequence properly, you must follow the frame numbers and read the frames at the top of each page first until you reach the last

page, then return to the beginning of the sequence and read the frames at the bottom of each page until you complete the sequence. For those frames in which we ask you to fill in a blank or answer a question, the answer will be found at the top of the next frame following it. Please go ahead now with Sequence A.

OPEN MESS FOOD COST CONTROL

SEQUENCE A OBJECTIVES

Portion Control in Kitchen and Dining Room

After completing this sequence of instruction, you will be able to do the following things:

- 1. Distinguish among the three types of menus used in open mess operations.
- 2. Specify features of the portion control system as follows:
  - a. Define the term "portion control."
  - b. Select from a list the three control factors in establishing portion sizes.
  - c. Identify six of the eight reasons for establishing standard portion sizes.
  - d. Recognize two of the three procedures followed in establishing standard portion sizes.
  - e. Select three of the five advantages of standard recipes.
  - f. Define the term food production planning.
  - g. Identify two of the three tools of food production planning.
  - h. Complete computations on a recipe food cost card and a single item food cost card.



A1. Our first objective states that we will be able to distinguish between the three types of menus used in open mess operations. Do you already know what they are? If so, good. If not, you'll learn this as we progress. The first type is the a la carte menu, wherein all courses and accompaniments are priced and charged for separately. The customer pays the total of all items ordered. The portions are larger in this type of menu, and they cost the customer more. The open mess has the advantage of the larger check and better portion and food cost controls. The customer has the disadvantage of paying more for his meal, which causes customer dissatisfaction.

Please go on to frame A2, next page.

---

They simplify the job of training a new worker

A44. The fifth advantage of using standard recipes is that they aid in controlling food cost. They provide a means of figuring accurately the cost of the ingredients used in recipes, estimating the yield of recipes, checking losses of food items and making the necessary adjustments to prevent loss by using fewer or less expensive recipe ingredients, maintaining quality of food, and keeping leftovers to a minimum. Standard recipes are perhaps the most important factor in controlling food cost in the open mess.

A2. The menu in which all courses are charged for separately is known as the \_\_\_\_\_ menu. Are the portions larger or smaller in this type of menu? \_\_\_\_\_. Do they cost the customer more or less? \_\_\_\_\_. Is the check usually larger or smaller in this type of menu? \_\_\_\_\_.

---

A45. What is the fifth advantage of using standard recipes?

---

a la carte  
larger  
more  
larger

A3. The second type of menu used in the open mess is the table d'hote (pronounced "tobble dote"). This is an entire meal with prearranged courses (no selection of courses) served at a fixed price, including the appetizer, soup, salad, entree (main meat dish), vegetables, bread, drink, and dessert. Patrons can tell at a glance the cost of the entire meal. It is advantageous to patrons because of the ease of ordering, although there is little or no choice or selection of courses for the patron. The portions are smaller, and the entire check does not have to be added up, as the price includes the complete meal.

---

They aid in controlling food cost

A46. See how many advantages of standard recipes you can list below:

1. \_\_\_\_\_.
2. \_\_\_\_\_.
3. \_\_\_\_\_.
4. \_\_\_\_\_.
5. \_\_\_\_\_.

A4. The menu in which the entire meal is served at a fixed price with prearranged courses (no selection) is known as the \_\_\_\_\_ menu. This is pronounced "\_\_\_\_\_." Are the portions larger or smaller in this type of menu than in the a la carte menu? \_\_\_\_\_. Does the check have to be added up for this type of menu? \_\_\_\_\_.

---

A47. You probably listed all or most of the advantages listed below. Go back and write in any that you missed, as this will help you to remember.

1. They save time for both the cook and the manager.
2. They eliminate guesswork and control waste.
3. They eliminate variations in quality and quantity of product.
4. They simplify the job of training a new worker.
5. They aid in controlling food cost.

table d'hote  
 "tobble dote"  
 smaller  
 no

A5. The third type of menu used in the open mess is the selective menu, a good, workable, combination of the a la carte and the table d'hote menus. The price of the entree is the cost of the meal including a choice of selection of courses. For example, steak priced at \$2.75 might include a choice of two vegetables, salad, bread, drink, and dessert. It might also include a choice of appetizers. This type of menu simplifies the making out of checks for the meals and permits the patrons to select from an ample assortment of courses. See panel 1 for a selective menu plan.

---

A48. An important part of open mess food cost control is food production planning. This is planning to get the right amount of food prepared on time with the least possible loss. There are three tools used in food production planning, as follows: the forecast, the best principles of cooking, and standard recipes. The first tool, the forecast, is an estimate of the number of meals needed that gives the planner the base figure with which to start. This estimate must be translated into raw food to issue to preparing personnel in the kitchen. (See panel 2.2).

A6. A combination of the a la carte and the table d'hote menus is known as the \_\_\_\_\_ menu. It is similar to the table d'hote menu in that the price of \_\_\_\_\_ is the cost of the \_\_\_\_\_, but it differs from the table d'hote menu in that there is a \_\_\_\_\_ of courses. This menu simplifies the making out of \_\_\_\_\_ and gives the patrons a wide \_\_\_\_\_ of courses.

---

A49. Panel 2.2 shows a forecasting sales sheet for a Friday luncheon. It forecasts that 20 orders of French fried shrimp would be sold. Sixteen orders were sold and two orders were eaten by employees; 10 ounces of shrimp were left over. The forecast was fairly accurate, and there was little or no waste of this item. There was no loss or leftovers for roast leg of veal, because the forecast was 100 percent accurate. The forecast helped to get the right amount of food prepared with the least possible loss.

selective  
the entree  
entire meal  
selection  
checks  
selection

A7. The type of menu in which the price of the meal includes an appetizer, soup, salad, dessert, beverage, and vegetables on a prearranged basis with little or no selection is known as the \_\_\_\_\_ menu. The type of menu in which all courses and accompaniments are priced and charged for separately is known as the \_\_\_\_\_ menu. The type of menu offering a complete meal for the price of the entree with a selection of the courses is known as the \_\_\_\_\_ menu. How do you pronounce table d'hote? " \_\_\_\_\_."

---

A50. Define food production planning: \_\_\_\_\_

What is the first tool of food production planning?

Define it: \_\_\_\_\_

Table d'hote  
 a la carte  
 selective  
 "tobble dote"

A8. Regardless of the type of menu offered, the number of sales of each menu item must be tabulated to reveal customer preference for food items (see panels 2 and 2.1) Instructions for completing the scatter sheet are in USCONARC Pamphlet No. 230-1. We will not discuss them here. Customer preference may vary greatly between dinner and lunch. You must give the customers the food they want when they want it. Do not confuse customers by publishing long, complicated menus.

---

It is planning to get the right amount of food prepared on time with the least possible loss.

The forecast.

It is an estimate of the number of meals needed.

A51. In the kitchen, preparing personnel must use the best principles of cooking (the second tool of food production planning) as the most efficient way to combat waste and overproduction, such as cooking in small batches and following correct cooking time; having smaller containers of uncooked food ready to cook if necessary; and realizing that running short on certain menu items may be better than having leftovers.

A9. What does portion control mean? It means controlling portion sizes served. You serve a specified size (controlled portion) of food to the customer at a set price that will produce a monetary return high enough to recover the purchase cost of the food and other expenses. Meal prices are based on a definite yield of a food product and portion sizes are derived from that yield. We shall learn later how to figure portion sizes.

---

A52. The second tool of food production planning is to

Examples of this are: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

A10. Portion control means controlling the size of \_\_\_\_\_ served at a set \_\_\_\_\_ high enough to recover the \_\_\_\_\_ of the food and other expenses. Meal prices are based on a definite \_\_\_\_\_ of a food product.

---

use the best principles of cooking.

cooking in small batches, following correct cooking times; having smaller containers of food ready to cook if necessary; running short may be better than having leftovers.

A53. The third tool of food production planning in the open mess is standard recipes. We have discussed the five main advantages of using standard recipes. They are perhaps the most important tool of food production planning, because without them you could not plan food production properly. You must have standard portion sizes, standard yields, and standard ingredients to plan food production; and all of these are shown on the standard recipe.

portions

price

cost

yield

All. The lack of standard portions of food is one of the greatest loss factors in selling food. The size of portion for each food item served depends upon the following three control factors:

1. Age, activity, sex, and food preference of group to be fed.
2. Type of menu and service offered.
3. Profits expected.

---

A54. What is the third tool of food production planning in the open mess? \_\_\_\_\_ . A recipe food cost card (panel 3) should be kept to record the recipe ingredient costs, the portion cost, the portion selling price, and date of the calculation. Sales based on a certain number of portions of a definite size can be calculated accurately. This is a valuable sales history to keep on any standard recipe.

A12. One of the greatest loss factors in selling food is the lack of \_\_\_\_\_ . The size of portion of each food item served depends upon three control factors, as follows:

1. \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ ,  
and \_\_\_\_\_ of the group to be fed.
2. Type of \_\_\_\_\_ and \_\_\_\_\_ offered.
3. \_\_\_\_\_ expected.

---

standard recipes

A55. See if you can list below the three tools used in food production planning (in any order):

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

standard portions

1. age, activity, sex, and food preference
2. menu and service
3. profits

A13. Care should be taken to prevent plates from looking too standardized. Skill, artistry, and variety should be employed. There are eight good reasons for using portion control. The first is that it makes possible the purchasing of the right amount of foods for the groups to be fed and prevents overpurchasing. The second is that it prevents waste of food and the loss of nutritive value in food that must be reworked for use again.

the forecast

the best principles of cooking

standard recipes

A56. Turn to panel 3 now and follow it as we discuss how to fill out the recipe food cost card. This particular card is for the wheat griddle cake recipe of 75 portions. We can see that the ingredients for the recipe cost us \$4.7716 (the combined ingredient cost), and that these ingredients produced 300 cakes (yield), making 75 portions (portions yielded) of four cakes each (portion size). Each portion of 4 cakes cost us \$.064 (portion cost), and we sold each portion of four cakes for \$.16 (portion selling price), realizing a gross profit of 60% above the 40% food cost. We shall define and discuss these two percentages as the course progresses.

A14. The first reason for using portion control (controlling the sizes of portions served) is that you can purchase the \_\_\_\_\_ of food and not \_\_\_\_\_. The second reason is that portion control prevents \_\_\_\_\_ and the \_\_\_\_\_ of food for use again, thereby preventing loss of its \_\_\_\_\_.

---

A57. How many pounds of sifted flour were used in the recipe?  
\_\_\_\_\_. How much did each pound cost? \_\_\_\_\_.  
How much did the total flour used cost? \_\_\_\_\_.

right amount  
 overpurchase  
 waste  
 reworking  
 nutritive value

A15. The third reason for using portion control is that it makes possible the use of fresh food daily, because you do not overpurchase or prepare more food than you need. The fourth is that it assures standard yields each time from standard recipes and standard purchase units, thereby preventing overproduction and underproduction of food.

11-1/4 pounds  
 \$.10  
 \$1.1250 (11.25 x .10 = 1.1250)

A58. The steps in preparation section at the bottom of the form tells us that if four tablespoons of batter are used per cake, the recipe will yield 300 cakes. If 75 portions are to be served from the recipe, how many cakes will be in each portion? \_\_\_\_\_ . We arrive at this by \_\_\_\_\_ .

A16. The third reason for using portion control is that it makes possible the use of \_\_\_\_\_, because you do not \_\_\_\_\_ or \_\_\_\_\_ more food than you need. The fourth reason for using portion control is that it assures standard \_\_\_\_\_ each time from standard \_\_\_\_\_ and \_\_\_\_\_, thereby preventing \_\_\_\_\_ and \_\_\_\_\_ of food.

---

4 cakes

dividing 75 portions into 300 cakes

A59. If there are 75 portions yielded by this recipe, how much does each portion cost us? \_\_\_\_\_. We arrive at this by \_\_\_\_\_.

fresh food daily

overpurchase

prepare

yields

recipes

purchase units

overproduction

underproduction

A17. The fifth reason for using portion control is that it assures ease in preparation of food and speeds up service. When you control your portions you know how much of an item to prepare and how much to serve each patron to come out even. There is no guesswork in serving.

---

\$.064 (cost of one portion)  
dividing 75 portions into \$4.7716 (the combined ingredients cost) and rounding off to 3 places beyond the decimal (see panel 9)

A60. The portion selling price (\$.16) was based on the food cost percentage (40%) and the anticipated gross profit percentage (60%). The anticipated gross profit percentage is set by CONARC of the open mess as the amount of profit that must be made over and above the food cost percentage. If the anticipated gross profit percentage is 60%, what will be the food cost percentage? The answer is 40%, because  $100\% - 60\% = 40\%$ . (See panel 6, formula 5). The food cost percentage will be taught in detail as the course progresses.

A18. The fifth reason for using portion control is that it assures

\_\_\_\_\_ of food and \_\_\_\_\_.

---

A61. When we know the food cost percentage we can determine the portion selling price by a formula or a table. Turn to panel 5. This is a mark-up table showing the portion cost based on the food cost percentage. Read the statement in the lower right-hand corner. It tells us how to use the table. If our food cost percentage is 40% (first column to the left) and our portion cost is \$.06, then our portion selling price will be \$.15. Panel 3 shows the portion selling price to be \$.16, which is slightly higher because of the portion cost being slightly higher than .06 (\$.064). This is done more accurately by the formula of dividing the food cost percentage into the portion cost, to get \$.16 (see panel 6, formula 4). The table is better used when the portion costs are even cents and the food cost percentages are even numbers, and the formula is better used for odd cents and odd numbers.

ease of preparation  
speeds up service

A19. The sixth reason for using portion control is that it assures minimum plate waste due to uneven portions. Uneven portions cause more plate waste than anything else because portions are too large in some cases and the patron leaves part of the portions on his plate. This is usually avoided by serving even portions, because the customer eats the entire portion.

---

A62. The portion selling price is based on two percentages. What are they?

1. \_\_\_\_\_
2. \_\_\_\_\_
3. CONARC sets the \_\_\_\_\_

\_\_\_\_\_. You subtract this percentage from 100% to get the \_\_\_\_\_.

4. If your food cost percentage were 36% and your portion cost were \$.10, what would be your portion selling price?

5. If your food cost percentage were 41% and your portion cost were \$.09, what would be your portion selling price?

A20. The sixth reason for using portion control is that it assures minimum \_\_\_\_\_. The seventh reason is that attractive and uniform servings provide customer satisfaction. Customers will not be satisfied with uneven portion servings that seem too large in some cases and too small in others. Attractive, uniform servings do much to improve the appearance of the serving plate.

1. food cost percentage
2. anticipated gross profit percentage
3. anticipated gross profit percentage; food cost percentage

4. \$.28 - portion selling price-----> (table - panel 5)

5. \$.22 - using formula No. 4, Panel 6  $\begin{array}{r} .41 \cdot ) \cdot 09.00 \\ \underline{82} \\ 80 \end{array}$  or .22

Food cost Percentage	Portion Cost		
	%	8	10
34			12
36		28	
38			

A63. We moved the decimal two places to the right in both the dividend and divisor so that we could divide correctly. Now turn to panel 4. This is a single item food cost card. We see that on 5 October 19\_\_ we bought a carton of lettuce for \$2.50 per carton. There were 24 heads of lettuce in each carton. Therefore, each head of lettuce cost us \_\_\_\_\_ (how much?)

plate waste

A21. The seventh reason for using portion control is that it provides customer \_\_\_\_\_ . The eighth, and final, reason for using portion control is that it makes possible an accurate cost control system so that you will know the expected monetary return for the number of meals served. So portion control goes hand in hand with cost control. You have to control the portions to control the cost of food. You must know how many portions a certain recipe will yield, using standard portion sizes, to determine the cost of the ingredients used in the recipe, and to set your price for the portions served. Without standard portions, you could not know the correct yield of the recipe.

\$.10 per head

A64. We arrived at this cost per head by \_\_\_\_\_  
 \_\_\_\_\_ . Each portion consists of \_\_\_\_\_  
 \_\_\_\_\_ of a head of lettuce. Therefore, each portion cost  
 us \_\_\_\_\_ (how much?) . This was arrived at by \_\_\_\_\_  
 \_\_\_\_\_ .



satisfaction

A22. The eighth reason for using portion control is that it makes possible an accurate \_\_\_\_\_ so that you will know the expected \_\_\_\_\_ for the number of meals served.

---

dividing 24 heads into \$2.50 (package cost)

1/8 (head of lettuce)

.013 (portion cost)

dividing 8 into \$.10 OR multiplying 1/8 by \$.10; COMPUTATION:

$$\begin{array}{r} .0125 \text{ or } .013 \\ 8 \overline{) .10} \\ \underline{8} \phantom{0} \\ 20 \\ \underline{16} \\ 40 \\ \underline{40} \end{array}$$

A65. How did we get the portion selling price of \$.03? We know that the anticipated gross profit percentage is 55% (panel 4), set by the board of governors of the open mess. Therefore, our food cost percentage is \_\_\_\_\_, arrived at by \_\_\_\_\_. Since we know the food cost percentage, we can figure the portion selling price of \$.03 very accurately by \_\_\_\_\_

---



---

cost control system  
monetary return

A23. See how many of the eight reasons for establishing standard portion sizes you can list below (in any order):

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_

45%

subtracting 55% (anticipated gross profit percentage) from 100%

dividing 45% (food cost percentage) into \$.013 (portion cost) and rounding off to 2 places beyond the decimal (see panel 9) COMPUTATION:

$$\begin{array}{r}
 .45 \overline{) .01300} \\
 \underline{.90} \phantom{00} \\
 400 \\
 \underline{360} \\
 40
 \end{array}$$

.028 or .03

A66. Turn now to panel 3.1 and complete all computations necessary and fill in all blank blocks in the ingredients and yield sections of the food cost card. Then return to this text and continue with the course.

A24. You may have listed some or all of the following. Go back and write in any that you missed. This will help you to remember.

1. Prevents overpurchasing of food.
  2. Prevents waste of food and loss of nutritive value.
  3. Makes possible use of fresh food daily.
  4. Assures standard yields from standard recipes.
  5. Assures ease in preparation and speeds up service.
  6. Assures minimum plate waste due to uneven portions.
  7. Provides customer satisfaction through attractive and uniform servings.
  8. Provides accurate cost control system with expected monetary return.
- 

A67. How did you get along with the computations? Turn to panel 7 and check your computations. Correct any errors you made in panel 3.1 and then return to this text and continue with the course.

A25. How do we go about establishing standard portion sizes? There are three procedures followed: using standard guides, training workers, and using preportioning tools and equipment. Let's discuss the first procedure: using standard guides. These are charts showing the exact yield for foods, portion tables showing sizes of portions for food served, standard recipes giving exact sizes of portions for food served, count and tabulation studies indicating amount produced and actual number of servings sold, multicounters and other machines to check portions served, and plate checks. We will learn more about these guides as this course progresses.

---

A68. Now turn to panel 4.1 and complete the computations for the entries for 10 May and 1 August by filling in the portion cost and portion selling price blocks for those entries on the single item food cost card. Then return to this text and continue with the course.

A26. What is the first procedure used in establishing standard portion sizes? \_\_\_\_\_ . Give some examples of these guides: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

---

A69. Turn to panel 8 now and compare it with your postings in panel 4.1. Correct any errors you made; then return to this text and continue with the course.



using standard guides  
charts, portion tables, standard recipes, tabulations

A27. The second procedure followed in establishing standard portion sizes is to train workers in this area. They should be trained in preparation techniques that will insure a standard product and a standard yield. For example, a roast placed in too hot an oven will shrink to two-thirds of its original size (a one-third loss). Workers should be trained to follow standard recipes that produce standard yields using standard portions. Workers should be shown the size of portions to serve and how to obtain them prior to mealtime.

---

A70. REVIEW. Now let's review what we have learned about portion control in the kitchen and dining room. Complete the following blanks to the best of your ability. Review the text for any material you may be unsure of. Check your answers at the top of the next frame, as usual, and make any corrections necessary. Try to complete as many blanks as you can without aid.

A28. The second procedure followed in establishing standard portion sizes is to \_\_\_\_\_ . They should be trained in \_\_\_\_\_ techniques that will insure a standard \_\_\_\_\_ and a standard \_\_\_\_\_. Workers can be trained to follow standard \_\_\_\_\_ using standard \_\_\_\_\_, and prior to mealtime can be shown the size of \_\_\_\_\_ to serve.

A71. The three types of menus used in open mess operations are as follows: (in any order)

1. \_\_\_\_\_.
2. \_\_\_\_\_.
3. \_\_\_\_\_.



train workers.  
 preparation  
 product  
 yield.  
 recipes  
 portions  
 portions.

A29. The third procedure followed in establishing standard portion sizes is to use preportioning tools and equipment. Standard-sized pans permit portions to be cut or served uniformly. Examples are standard-sized muffin tins, cake pans, and meat loaf pans. Tools include standard-sized ladles, spoons, dippers, ice cream scoops, and serving tongs of various sizes. Serving equipment includes standard-sized individual casseroles, custard cups, molds, and souffle cups. Other equipment includes scales for weighing portions; slicers for breads, meats, and vegetables; and cutters for butter, cheese, eggs, cakes, and pies. Serving preportioned sugar, crackers, jelly, and condiments will do much to control portions served.

---

a la carte

table d'hote

selective

A72. Which menu has all courses priced and charged for separately?

\_\_\_\_\_ . In which menu is the price of the entree the cost of the entire meal with a choice of courses?

\_\_\_\_\_ . Which menu features an entire meal with prearranged courses (no choice) served at a fixed price?

\_\_\_\_\_

A30. The third, and perhaps most important, procedure followed in establishing standard portion sizes is to \_\_\_\_\_  
\_\_\_\_\_. These permit portion sizes to be measured accurately. Examples are \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_.

---

a la carte  
selective  
table d'hote

A73. The term portion control means controlling the sizes of \_\_\_\_\_ served at a set \_\_\_\_\_ high enough to recover the \_\_\_\_\_ of the food and other expenses.

use preportioning tools and equipment  
pans, ladles, dippers, scoops, tongs, cups, molds, scales, slicers, cutters;  
preportioned sugar, crackers, jelly, condiments

A31. See if you can list below the three main procedures used in  
establishing portion sizes:

1. \_\_\_\_\_.
2. \_\_\_\_\_.
3. \_\_\_\_\_.

portions  
price  
cost

A74. The size of portions is established, based on three control  
factors. They are as follows:

1. \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_  
of the group to be fed.
2. Type of \_\_\_\_\_ and \_\_\_\_\_ offered.
3. \_\_\_\_\_ expected.



- 1. using standard guides
- 2. training workers
- 3. using proportioning tools and equipment

A32. Now see how many examples you can list below under each procedure:

1. Using standard guides:

2. Training workers:

3. Using proportioning tools and equipment:

- 1. age, activity, sex, and food preference
- 2. menu and service
- 3. profits

A75. See how many of the eight reasons for establishing standard portion sizes you can list below:

- 1. \_\_\_\_\_.
- 2. \_\_\_\_\_.
- 3. \_\_\_\_\_.
- 4. \_\_\_\_\_.
- 5. \_\_\_\_\_.
- 6. \_\_\_\_\_.
- 7. \_\_\_\_\_.
- 8. \_\_\_\_\_.

A33. You may have listed some or all of the following examples. Go back and add any that you missed.

1. Using standard guides: Food yield charts; portion tables; standard recipes; count studies; multicounters; and plate checks.
2. Training workers: Preparation techniques insuring standard product and yield; following standard recipes that produce standard yields and portions; showing workers size of portions prior to mealtime.
3. Using preportioning tools and equipment: Standard-sized pans: muffin tins, cake pans, meat loaf pans; standard-sized tools: ladles, spoons, dippers, ice cream scoops, and serving tongs; standard-sized serving equipment: individual casseroles, custard cups, molds, and souffle cups; scales; slicers for breads, meats, and vegetables; cutters for butter, cheese, eggs, cakes, and pies; preportioned sugar, crackers, jelly, and condiments.

A76. Check your list with the list below and go back and add any that you missed. This will help you to remember them.

1. Prevents overpurchasing of food.
2. Prevents waste of food and loss of nutritive values.
3. Makes possible use of fresh food daily.
4. Assures standard yields from standard recipes.
5. Assures ease in preparation and speeds up service.
6. Assures minimum plate waste due to uneven portions.
7. Provides customer satisfaction through attractive and uniform servings.
8. Provides accurate cost control system with expected monetary return.

A34. What do you suppose is the purpose of using standard recipes?

It is a must that each food service activity establish standard recipes tailored to fit its operation, because the food service manager cannot do an efficient job with scattered, untested recipes. The purpose, then, of using standard recipes is to guide the food service activity in its food preparation using tested recipes tailored to fit its operation.

---

A77. What are the three main procedures used in establishing portion

sizes:

1. \_\_\_\_\_.
2. \_\_\_\_\_.
3. \_\_\_\_\_.

A35. The purpose of using standard recipes is to \_\_\_\_\_ the food service activity in its food preparation using \_\_\_\_\_ tailored to fit its operation. Selected recipes can be bound in loose leaf binders and can be placed on cards with plastic coverings for filing. It is advisable to have a duplicate file of recipes or a master file. One set of recipes can be available to the office staff and the other to the kitchen personnel. Any changes to the recipes should be made to both sets.

- 
1. using standard guides
  2. training workers
  3. using preportioning tools and equipment

A78. See how many examples you can list below under each procedure:

1. Using standard guides:
  
  
2. Training workers:
  
  
3. Using preportioning tools and equipment:

guide  
tested recipes

A36. We have discussed using standard guides, such as standard recipes, in establishing standard portion sizes. What are the other advantages of standard recipes in the open mess food operation? Actually, there are five main advantages of using standard recipes in the open mess. The first advantage is that standard recipes save time for both the cook and the manager. If the cook knows exactly how much of an item to prepare for a specified number of patrons and if he knows the exact yield (number of portions produced) by the recipe for each item on the menu, he will save much time in preparation.

---

A79. You may have listed some or all of the following examples. Go back and add any that you missed.

1. Using standard guides: Food yield charts; portion tables; standard recipes; count studies; multicounters; and plate checks.
2. Training workers: Preparation techniques insuring standard product and yield; following standard recipes that produce standard yields and portions; showing workers size of portions prior to mealtime.
3. Using preportioning tools and equipment: Standard-sized pans; standard-sized tools; standard-sized serving equipment; scales; slicers; cutters; preportioned servings of individual items.

A37. What is the first main advantage of using standard recipes in an open mass food operation? \_\_\_\_\_ for both the \_\_\_\_\_ and the \_\_\_\_\_.

---

A80. The purpose of using standard recipes is to \_\_\_\_\_ the food service activity in its \_\_\_\_\_ using \_\_\_\_\_ tailored to fit its operation.

They save time

cook

manager

A38. The second main advantage of using standard recipes in preparing food for the open mess food operation is that they eliminate guesswork and control waste. Just as they save time by telling the cook exactly how much of an item to prepare and how much of each ingredient to use, they eliminate guesswork in estimating how much of an item to prepare or how much of an ingredient to use. Preparing accurate amounts will, of course, control waste, as there will be fewer leftovers.

guide

food preparation

tested recipes

A81. List below the five advantages of standard recipes:

1. They save \_\_\_\_\_ for both the cook and the manager.
2. They eliminate \_\_\_\_\_ and control \_\_\_\_\_.
3. They eliminate variations in \_\_\_\_\_ and \_\_\_\_\_ of the product.
4. They simplify the job of \_\_\_\_\_ a new worker.
5. They aid in controlling \_\_\_\_\_.

A39. What is the second main advantage of using standard recipes in preparing food in the open mess? \_\_\_\_\_

\_\_\_\_\_.

- 
1. time
  2. guesswork; waste
  3. quality; quantity
  4. training
  5. food cost

A82. Food production planning is planning to get the right amount of \_\_\_\_\_ prepared \_\_\_\_\_ with the least possible

\_\_\_\_\_.

It eliminates guesswork and controls waste

A40. The third advantage of standard recipes is that they eliminate variations in quality and quantity of the product. We have already mentioned preparing accurate amounts and using accurate ingredients and how this will control waste. This will also produce accurate quality and quantity of the product we are preparing. Using a standard recipe for a cake, for instance, will produce a cake of high quality and of the correct size to meet the yield requirements for cake for the meal.

---

food

on time

loss

A83. The three tools of food production planning are as follows:

1. \_\_\_\_\_.
2. \_\_\_\_\_.
3. \_\_\_\_\_.

A41. What is the third advantage of standard recipes?

---

---

- 
1. the forecast
  2. the best principles of cooking
  3. standard recipes

A84. Now let's try some simple problems based on the recipe food cost card (panel 3):

1. If a recipe calls for 80 portions of an item and yields 240 units of that item, how many units will be in one portion (portion size)? \_\_\_\_\_.

2. If the recipe calls for  $1 \frac{3}{8}$  lbs. of granulated sugar and one pound of sugar costs \$.10, how much will the total amount of sugar used cost? \_\_\_\_\_.

They eliminate variations in quality and quantity .

A42. The fourth advantage of standard recipes is that they simplify the job of training a new worker. Suppose you were training a new worker in how to bake a cake and, although you knew quite well how to do this, you followed no particular recipe. Your quality of finished product and yield would be subject to considerable variation. It would be difficult to train the worker so that he could produce uniform quality and quantity of product when he is on his own.

1. ANSWER: 3 units; COMPUTATION: 
$$\begin{array}{r} 3 \\ 80 \overline{)240} \end{array}$$

2. ANSWER: \$.1375 cost; COMPUTATION: 
$$\frac{11}{8} \times \frac{.10}{1} = \frac{\$.1375}{1.1000}$$

OR

1 lb. = 16 oz; therefore, 1 3/8 lb. = 16 oz.; 22 oz. x .10 = 2.20 ÷ 16 = .1375  
$$\begin{array}{r} +6 \text{ oz.} \\ 22 \text{ oz.} \end{array}$$

A85. 1. If the food cost percentage of the recipe is 50% and the portion cost is \$.100, what is the portion selling price? \_\_\_\_\_.

NOW TURN TO PANEL 4.

2. If you bought a carton of lettuce for \$3.00 and each carton had 25 heads in it, how much would each head cost? \_\_\_\_\_.



A43. What is the fourth advantage of using standard recipes in the open mess food operations? \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

PLEASE RETURN TO PAGE 1 AND CONTINUE WITH FRAME A44.

1. ANSWER: \$.20 portion selling price; COMPUTATION:  $\begin{array}{r} .50. \\ \underline{.10.00} \\ \$0.20 \end{array}$  (formula 4, panel 6 or use table, panel 5)

2. ANSWER: \$.12 unit cost; COMPUTATION:  $\begin{array}{r} \$ .12 \\ 25 \overline{) 3.00} \end{array}$

A86. 1. If each head is divided into one-quarter portions, how much will each portion cost? \_\_\_\_\_

2. If the anticipated gross profit of the open mess is 60%, what will be the portion selling price for the lettuce? \_\_\_\_\_

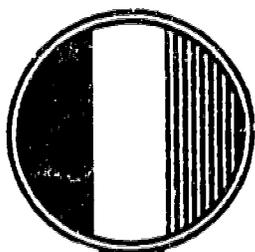
---

1. ANSWER: \$.03 (portion cost); COMPUTATION:  $\frac{$.03}{4/.12}$  or  $\frac{1}{4} \times \frac{.12}{1} = \frac{.12}{4} = $.03$

2. ANSWER: \$.08 (portion selling price); COMPUTATION:  $100\% - 60\% = 40\%$ ;

$$\frac{.40 \cdot \frac{$.075}{.03,000}}{.03,000} = .08 \text{ (formula 4, panel 6)}$$

A87. This completes Sequence A.



**U.S. ARMY QUARTERMASTER SCHOOL  
FORT LEE, VIRGINIA**



**SUPPLY TRAINING CENTER OF THE ARMY SCHOOL SYSTEM**

**SEQUENCE B**

**FOR PROGRAMED INSTRUCTION ON**

**OPEN MESS  
FOOD COST CONTROL**

**Subject:**

**FUNCTIONS AND PRINCIPLES OF FOOD COST CONTROL**

Now \_\_\_\_\_  
Revised  \_\_\_\_\_  
Reprint \_\_\_\_\_  
Reviewed by \_\_\_\_\_  
Approved by Subs & Pd by                      Sept 1970

**SEPTEMBER 1970**

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## OPEN MESS FOOD CCST CONTROL

## SEQUENCE B OBJECTIVES

Functions and Principles of Food Cost Control

After completing this sequence of instruction, you will be able to do the following things:

1. State the purpose of the food cost control system.
2. Select from a list the three essential features of a food cost control system.
3. Select five of the seven areas of open mess management in which the food cost control system is applied and identify each area selected as follows:
  - a. Purchasing.
    - (1) Recognize the two primary types of purchasing for the open mess.
    - (2) Select three of the five main factors to consider when purchasing food.
    - (3) Select six of the eight important guides to follow when purchasing food.
    - (4) Define the term "percentage of yield" as it pertains to food prepared for serving.
    - (5) Determine the amount of a food item to purchase based on the percentage of yield of the item.
  - b. Receiving. Identify two of the three controls used when receiving purchased food.

c. Storing.

(1) Select four of the six factors contributing to loss of stored food items.

(2) State the basic principle of storage.

d. Issuing. Select two of the four control measures regarding the issue of food items.

e. Production. Identify two of the three basic production controls governing the preparation of food.

f. Inventory.

(1) State the basic principle relating to inventory control.

(2) Identify four of the six usual causes of discrepancies in inventories.

g. Sales. Identify one of the two primary systems used in sales control and identify personnel duties related thereto.

B1. What do you think might be the purpose of a food cost control system? We have already studied (in Sequence A) the portion control system, which is a part of the food cost control system of the open mess. We learned that portion control was a major factor in open mess operations to assure a fair profit to the open mess and a reasonable amount of food at a fair price to the customer. This is the purpose, then, of the food cost control system. It controls the cost of food served to the customer so that he can receive a reasonable amount of food at a fair price and so that the open mess can realize a fair profit.

---

B51. See if you can list below the six factors contributing to loss of stored food items (in any order):

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_

B2. State in your own words the purpose of a food cost control system:

---

---

---

---

B52. Go back and add any of these that you might have missed:

1. high humidity and temperature.
2. theft.
3. spoilage.
4. shrinkage.
5. waste.
6. rodents and insects.

B3. You probably wrote something like this: It controls the cost of food served to the customer so that he can receive a reasonable amount of food at a fair price and so that the open mess can realize a fair profit.  
Go back and add any part of this that you might have left out.

---

B53. The basic principle of storage is: \_\_\_\_\_  
\_\_\_\_\_, which means to \_\_\_\_\_  
stored stock so that you \_\_\_\_\_.

B4. A good food cost control system must have three essential features, as follows:

1. It must be practical and not interfere with kitchen working routine.
2. It must be controlled by personnel other than food service personnel.
3. It must provide enough information so that corrective measures may be taken when necessary.

first in, first out

rotate

use items stored the longest first

B54. The fourth area of open mess management in which the food cost control system is applied is issuing food in the open mess. There are four control measures to take when issuing food items, as follows:

1. Only persons designated to do so should issue food items. Food should be issued only over an authorized signature, and a record should be kept of every issue.
2. Food should be issued only at specified times. It is usually sufficient for the storeroom to make issues in the morning, at noon, and an hour before the storeroom closes.



B5. Although a food cost control system is important to the open mess food program, it must not interfere with its efficient operation. It must be workable and must not take too much time away from regular duties of personnel. A good food cost control program, adequately planned and maintained, will add to, rather than take from, the efficient operation of the open mess food program.

---

B55. What are the first two food cost control measures to take when issuing food items in an open mess?

1. \_\_\_\_\_

\_\_\_\_\_

2. \_\_\_\_\_

\_\_\_\_\_

B6. What is the first essential feature of a good food cost control system in the open mess? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

- 
1. Only designated persons should issue food items
  2. Food should be issued only at specified times

B56. 3. Food items should be issued only on one specific form. There is no need to have several forms to use when issuing food. One form should be enough. It should have columns for quantity, commodity, stock number, unit price, and total price. It should be numbered in the upper right hand corner to make missing forms easily identifiable. Nothing should leave the storeroom without being shown on a requisition form. The form should be signed by the issuing clerk and by the receiver of the food items.

It must be practical and not interfere with kitchen working routine

B7. Although food service personnel will be involved in the food cost control program, such as in testing recipes for yield, tallying scatter sheets, filling out customers' sales checks, and serving standard portions, the program must be controlled by open mess administrative personnel rather than food service personnel. Since the program involves bookkeeping and accounting principles, the chance for error is greater among personnel not trained in these subjects. Accurate records must be kept of computations and procedures. Pilferage will also be discouraged.

---

B57. The third food cost control measure to take when issuing food items in an open mess is to \_\_\_\_\_

---

B8. State the second essential feature of a good food cost control system in an open mess: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

---

use only one specific form to issue food items

B58. 4. The issue form should have a specific distribution of copies.  
The issue clerk should keep a copy, one copy should be forwarded to the accounting or manager's office, and the receiver of the food should retain one copy. The number of additional copies prepared will depend upon the policy of the particular open mess.



It must be controlled by personnel other than food service personnel

B9. It is one thing to record the number of each food item sold in the open mess, but another thing to record whether you are meeting the anticipated gross profit percentage set by CONARC of the open mess. We have already discussed some of the forms and ways used in the open mess to determine profit for food items sold. The forecasting sales sheet will show the amount of leftovers we have for food items in a specific menu.

---

B59. See if you can list below the four control measures regarding the issue of food items:

1. \_\_\_\_\_.
2. \_\_\_\_\_.
3. \_\_\_\_\_.
4. \_\_\_\_\_.



B10. The recipe food cost card will show us whether we meet the anticipated gross profit percentage for a specific recipe. The single item food cost card will show us how much each portion of an item cost us and how much to charge per portion based on the profit to be expected. All of this information is important in showing us whether corrective measures must be taken. If there is too much waste, too many leftovers, or we do not meet the gross profit percentage set by the open mess directors, then corrective measures must be taken. So the third essential feature of a good food cost control system is that it must provide enough information so that corrective measures may be taken when necessary.

---

B60. Go back and add any of these that you missed:

1. Only designated persons should issue food items.
2. Food should be issued only at specified times.
3. Food items should be issued only on one specific form.
4. The issue form should have a specific distribution of copies.

B11. See if you can list below the three essential features of a food cost control system (in your own words):

1. \_\_\_\_\_

\_\_\_\_\_

2. \_\_\_\_\_

\_\_\_\_\_

3. \_\_\_\_\_

\_\_\_\_\_

---

B61. Another area of open mess management in which food cost controls are important is the production or preparation of food. Production controls avoid waste, thereby reducing cost and price. There are three basic production controls planned preparation based on past sales history, the use of standard recipes, and the serving of standard portion sizes.

Planned preparation. An analysis of past food sales records is made to assist in planning for food preparation in the open mess (panels 2, 2.1 and 2.2). This avoids overproduction and the preparation of unpopular or unwanted items.

- B12. 1. It must be practical and not interfere with kitchen working routine.
2. It must be controlled by personnel other than food service personnel.
3. It must provide enough information so that corrective measures may be taken when necessary.
- 

B62. Records of food sales should include the item, day of the week served, the calendar date served, the meal for which it was prepared, the number of portions that were prepared, the number of portions actually sold, and the ratio of portions prepared to portions sold. From this information you will know how much food to prepare.

B13. The food cost control system applies to all seven areas of open mess food management: purchasing, receiving, storing, issuing, production, inventory controls, and sales. It stands to reason that wise purchasing is an important part of controlling food cost. Purchasing is of two primary types: direct daily and stockage. The first is done daily for immediate use, such as meat and fresh vegetables, while the second is done periodically for replacement of bulk items. Food cost control is an important part of both types of purchasing.

B63. What is the first basic production food cost control for the open mess? \_\_\_\_\_  
 \_\_\_\_\_ . To do this you must analyze  
 \_\_\_\_\_.



B14. Purchasing of food for the open mess food operation is of two primary types. What are they? \_\_\_\_\_ and \_\_\_\_\_.

---

planned preparation

past food sales records

B64. Standard recipes. Recipes and formulas are used that have been tested for acceptance and profit potential. Standard recipes prepared by the chef assure that the food used produces desired portions and that shrinkage and waste are kept to a minimum.

Standard portion sizes. Establishing standard portion sizes is an important production control. This prevents favoritism (the tendency to give larger portions to certain customers), safeguards against customer dissatisfaction, and prevents food waste.

direct daily  
stockage

B15. There are five main factors that you must consider when purchasing food for the open mess, as follows:

1. The drained weight of the canned goods you are purchasing. An off-brand of peas weighing 14 1/2 ounces may be 90 percent water. Name-brand peas of the same weight may be 10 percent water.

2. The grade you are purchasing. Be sure to purchase the grade you require. Buy quality, but buy for specific needs. Choice beef may not be required for braising or stewing, although it may be desired for steaks and roasts.

---

B65. The three basic production controls governing the preparation of food are as follows:

1. \_\_\_\_\_.
2. \_\_\_\_\_.
3. \_\_\_\_\_.

B16. What are the first two main factors to consider when purchasing food for the open mess, in order to control food cost?

1. \_\_\_\_\_.
2. \_\_\_\_\_.

- 
1. Planned preparation
  2. Standard recipes
  3. Standard portion sizes

B66. Another area of open mess management in which the food cost control system is applied is in the inventory of food items stocked. The basic principle relating to inventory control in the open mess is that a perpetual inventory be kept on expensive or critical items. To keep a perpetual inventory, the purchases made each day are added to that day's opening inventory and the day's issues are deducted.

1. drained weight
2. grade you are purchasing

B17. Two more purchasing factors to consider are as follows:

3. The purpose for which you are purchasing. For example, if you are buying steak for a banquet, you might want to buy 6-ounce steaks. If you are buying steak for dinner meals, you might buy 10-ounce steaks.

4. The budget or specification under which you are purchasing. Buy just enough so that there will be no spoilage. Use a sales history of the item as a guide (see panels 2, 2.1, and 2.2) when purchasing to estimate the amount needed. Careful budgeting of food purchases helps to keep the food cost to the customer down.

---

B67. The basic principle relating to inventory control in the open mess is that a \_\_\_\_\_ inventory be kept on \_\_\_\_\_ or \_\_\_\_\_ items.

B18. What are two more factors to consider in open mess food purchasing to control the cost of food?

3. \_\_\_\_\_.

4. \_\_\_\_\_.

---

perpetual

expensive

critical

B68. A perpetual inventory is kept by adding \_\_\_\_\_  
to that day's \_\_\_\_\_ inventory and \_\_\_\_\_  
the day's issues.

3. The purpose for which you are purchasing
4. The budget under which you are purchasing

B19. The final purchasing factor to consider is:

5. The reputation of the brands. Buy by brand name. Buy by grade and quality of product. Buy from known food suppliers.

Now see how many you can list below of the five factors to consider when purchasing food for the open mess:

1. \_\_\_\_\_.
2. \_\_\_\_\_.
3. \_\_\_\_\_.
4. \_\_\_\_\_.
5. \_\_\_\_\_.

purchases made each day  
opening  
deducting

B69. At the close of each month the closing book inventory is compared with the value of the physical inventory of goods on hand in the kitchen. Discrepancies between the two inventories exceeding five percent of total issues for the month must be investigated. There are six usual causes of these discrepancies between physical and closing book inventories, as follows: illegible requisitions, incorrect pricing, mathematical errors, shrinkage, spoilage, and theft.

B20. You may have listed all of the following. Go back and add any that you missed, as this will help you to remember:

1. The drained weight of the canned goods.
  2. The grade of the product.
  3. The purpose for which you are purchasing.
  4. The budget or specification under which you are purchasing.
  5. The brand reputation.
- 

B70. We can see that with care we can avoid the first three causes of discrepancies. We can make our requisitions clear to read and price correctly on them, avoiding errors in computations. We have discussed how humidity and temperature control and first in-first out help to avoid shrinkage, waste, and spoilage. We have also discussed how theft can be controlled by keeping items subject to easy theft in locked boxes.

B21. In addition to the five factors to consider when purchasing food for the open mess, there are eight guides that will assist you when purchasing food to control food cost in the open mess:

1. Visit the market. This is important because you must see what you are buying in order to know its true value and appearance. Staple items (flour, sugar, canned goods, condiments, etc.) should be purchased from the commissary store.

2. Compare prices of different dealers. It is apparent that great savings can be realized if products of comparable quality can be bought for less when buying in larger quantities. Don't count on one dealer for the best buy.

---

B71. List below the six usual causes of discrepancies in inventories, then check your list with the next frame.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_

B22. What are the first two guides to controlling food cost when purchasing food for the open mess:

1. \_\_\_\_\_.
2. \_\_\_\_\_.

- 
1. illegible requisitions
  2. incorrect pricing
  3. mathematical errors
  4. shrinkage
  5. spoilage
  6. theft

B72. The last of the seven areas of open mess management in which the food cost control system is applied is sales. There are two primary systems used in sales control, as follows: keeping a history of sales and controlling waiters' checks.

1. Visit the market
2. Compare prices of different dealers

B23. Two other important purchasing guides:

3. Compare products for yield. Tests prove that frequently the best grade gives the greatest yield. Large fish have less waste than small fish. One pound of leg of lamb yields only six ounces of edible meat. The edible yield of dressed rooster is 25% to 35% of its original weight.

4. Develop good relationships with dealers. This is important because frequently you can be advised regarding economy in purchasing. It is necessary to keep up to date with changing market conditions and new developments that affect prices. The dealer can assist you with this.

B73. 1. Sales history. It is important that a sales record or history be kept of all menu items sold (panels 2, 2.1, and 2.2). This can be done by one or two persons, depending upon the operation of the particular open m.s.s.

a. Food checker. The food checker keeps a record of the number of each food item sold, showing individual items when a la carte service is used, and entire menu selections when table d'hote service is used.

b. Food cashier. The food cashier verifies and records the sales price of each item from the sales check in the cash register and collects the total amount of cash recorded.

B24. What are two other important purchasing guides?

3. \_\_\_\_\_.

4. \_\_\_\_\_.

---

B74. What is the first primary system used in sales control in the open mess to control food cost? \_\_\_\_\_.

Who are the persons that usually do this? \_\_\_\_\_

\_\_\_\_\_.

3. Compare products for yield
4. Develop good relationships with dealers

B25. The next two purchasing guides are:

5. Order early. By planning ahead you can order your subsistence items early enough to receive your preferences rather than having to accept substitutes or less suitable items.

6. Buy preportioned, frozen food whenever possible. Preportioned items save on labor (processing), storage space, waste, and portion cost. Frozen produce provides seasonal food items throughout the year, and frozen gourmet entrees need only to be heated and served.

keeping a sales history  
food checker and food cashier

B75. In some open mess operations the duties of the food checker and cashier are combined so that one person performs the functions of both. In any event, the importance of keeping an accurate food sales history cannot be overemphasized.

2. Control of guests' checks. Prenumbered guest checks are stored in a locked box and issued to waiters, who sign for them by number. Unused guest checks are returned by the waiter, and used guest checks are turned in by the waiter with the cash to the cashier. Numbers of used checks can be checked against numbers of unused checks.

B26. What are the next two purchasing guides?

5. \_\_\_\_\_.

6. \_\_\_\_\_.

---

B76. What are the two primary systems used in sales control of food  
in the open mess?

1. \_\_\_\_\_.

2. \_\_\_\_\_.

5. Order early
6. Buy preportioned, frozen food (whenever possible)

B27. The final two purchasing guides are:

7. Purchase in bulk when you can realize a substantial discount.

It is not necessary to buy small or individually packaged items when larger bulk sizes are available at a considerable discount.

8. Set a schedule for visits by vendors. It is important to talk over your purchasing problems with vendors. In order to do this, set a definite, regular schedule of times that you can see vendors, perhaps on a monthly basis, to iron out any problems that you may have.

1. Keeping a history of sales
2. Controlling guests' checks

B77. The food checker keeps a record showing the \_\_\_\_\_ of each food item sold, either by \_\_\_\_\_ item or entire \_\_\_\_\_ selections. The food cashier verifies the \_\_\_\_\_ of each item, records it in the \_\_\_\_\_ and collects \_\_\_\_\_.

B28. See how many of the eight important guides to follow when purchasing food for the open mess that you can list below (go back and review any that you don't remember):

1. \_\_\_\_\_.
2. \_\_\_\_\_.
3. \_\_\_\_\_.
4. \_\_\_\_\_.
5. \_\_\_\_\_.
6. \_\_\_\_\_.
7. \_\_\_\_\_.
8. \_\_\_\_\_.

number

individual

menu

sales price

cash register

cash

B78. Sales history is transferred to scatter sheets (panels 2 and 2.1) that are used to determine if prices charged are in line with the total daily food cost and to determine if corrective action is necessary in food production planning for the open mess.

B29. Did you get most of them? Here they are. Go back and add any that you missed:

1. Visit the market.
2. Compare prices of different dealers.
3. Compare products for yield.
4. Develop good relationships with dealers.
5. Order early.
6. Buy preportioned, frozen food whenever possible.
7. Purchase in bulk when you can to realize a substantial discount.
8. Set a schedule for visits by vendors.

---

B79. **REVIEW.** Now let's review what we have learned about the functions and principles of food cost control. Complete the following blanks to the best of your ability. Review the text for any material you may be unsure of. Check your answers at the top of the next frame, as usual, and make any corrections necessary. Try to complete as many blanks as you can without aid.

B30. What does the percentage of yield of a food item mean? It is the percentage left to serve after the item is cooked or prepared. For example, an 80% yield of a food item indicates a 20% loss in preparation. Yield is usually determined accurately by a kitchen test of an item. Meat yield can be estimated by referring to meat yield charts published by wholesale meat distributors (panel 10). For example, the chart shows that swiss steak has a yield of 70% of the original item after it is cooked. This information is important in planning the amount of an item to purchase for a given meal.

---

B80. The purpose of the food cost control system is to control the \_\_\_\_\_ of food served in the open mess. It assures the customer of receiving a reasonable amount of \_\_\_\_\_ at a fair \_\_\_\_\_. It enables the open mess to realize a fair \_\_\_\_\_.

B31. The percentage of yield of a food item is the \_\_\_\_\_  
 \_\_\_\_\_ after it is cooked or prepared. A 90% yield would  
 indicate a \_\_\_\_\_% cooking loss of a food item. Yield is usually  
 determined accurately by a \_\_\_\_\_ of an item.

---

cost  
 food  
 price  
 profit

B81. The three essential features of a food cost control system are  
 as follows:

1. It must be \_\_\_\_\_ and not interfere with the  
 \_\_\_\_\_ working routine.
2. It must be controlled by personnel other than \_\_\_\_\_  
 personnel.
3. It must provide enough information so that \_\_\_\_\_  
 \_\_\_\_\_ may be taken when necessary.

percentage left to serve  
 10%  
 kitchen test

B32. To determine the percentage of yield in a kitchen test, the purchased weight of the food item is divided into the weight available for serving.

FORMULA:  $\frac{\text{Weight available for serving}}{\text{purchased weight}} = \text{percentage of yield}$

For example, 93.7 pounds of steak are purchased. After trimming and cooking, 75 pounds remain for serving. Divide 93.7 into 75 and you get an 80% yield:

$$93.7 \overline{)75.00} \begin{matrix} .80 \\ \underline{75.00} \\ 0.00 \end{matrix}$$

1. practical; kitchen
2. food service
3. corrective measures

B82. There are seven areas of open mess management in which the food cost control system is applied. See how many of them you can list below (in any order):

1. \_\_\_\_\_.
2. \_\_\_\_\_.
3. \_\_\_\_\_.
4. \_\_\_\_\_.
5. \_\_\_\_\_.
6. \_\_\_\_\_.
7. \_\_\_\_\_.

B33. You purchase 100 pounds of steak and conduct a kitchen test to determine its percentage of yield. After trimming and cooking the steak, you have 80 pounds left to serve. What is the percentage of yield of the steak? \_\_\_\_\_. What is the percentage of loss? \_\_\_\_\_.

- 
- |               |                      |
|---------------|----------------------|
| 1. purchasing | 5. production        |
| 2. receiving  | 6. inventory control |
| 3. storing    | 7. sales             |
| 4. issuing    |                      |

B83. There are two primary types of purchasing for the open mess. See if you can list below what they are:

1. \_\_\_\_\_.
2. \_\_\_\_\_.

80%; COMPUTATION:

$$\begin{array}{r} .80 \\ 100 \overline{)80.0} \\ \underline{80\ 0} \end{array}$$

20%; COMPUTATION:  $100\% - 80\% = 20\%$

B34. There is a formula for determining the number of pounds of an item to purchase based on its percentage of yield. Turn to panel 6 and look at formula 1. It says to multiply the number of persons you are going to serve by the desired portion size of the food item. Then multiply the percentage of yield of that item by 16 oz. (one pound). Divide the last figure into the first. This will give you the number of pounds of the food item to purchase.

1. direct daily purchasing (for immediate consumption)
2. stockage purchasing (for future use)

B84. Meat and fresh vegetables would be purchased under which type of purchasing? \_\_\_\_\_.

Bulk items that reach the reordering point would be purchased under which type of purchasing? \_\_\_\_\_.

B35. The example under the formula shows that you would need to purchase 94 pounds of steak having an 80% yield if you planned to serve 200 persons a 6-oz. portion of steak. You always round off the number of pounds to the nearest pound (93.7 to 94) (see panel 9 for rounding off).

---

direct daily purchasing

stockage purchasing

B85. When purchasing food, there are five main factors that should be considered. See how many of them you can list:

1. \_\_\_\_\_.
2. \_\_\_\_\_.
3. \_\_\_\_\_.
4. \_\_\_\_\_.
5. \_\_\_\_\_.

B36. The percentage of yield of a food item is determined by \_\_\_\_\_ the purchased weight \_\_\_\_\_ the \_\_\_\_\_ . Once you have the percentage of yield of a food item you can figure the number of pounds of the item to purchase based on the number of \_\_\_\_\_ and the desired \_\_\_\_\_ .

- 
1. The drained weight of the canned goods you are purchasing
  2. The grade you are purchasing
  3. The purpose for which you are purchasing
  4. The budget or specification under which you are purchasing
  5. The reputation of the brands

B86. See how many of the eight important guides to follow when purchasing food you can list:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

(continued next frame)

dividing  
 into  
 weight available for serving  
 persons to be served  
 portion size

B37. The formula for figuring the number of pounds to purchase is as follows:

$$\frac{\text{weight available for serving}}{\text{portion size}} = \text{number of pounds to purchase}$$

B87.

- 5. \_\_\_\_\_
- 6. \_\_\_\_\_
- 7. \_\_\_\_\_
- 8. \_\_\_\_\_

$$\frac{\text{No. of persons to be served} \times \text{desired portion size}}{\text{percentage of yield}} = \frac{\text{number of pounds}}{\text{to purchase}} \times 16 \text{ oz.}$$

B38. Now let's try some simple problems:

1. You are conducting a kitchen test for percentage of yield of a food item. You weigh the item before it is processed and cooked and find that it weighs 98.5 pounds (purchased weight). After it is cooked and processed it weighs 79.6 pounds (weight available for serving). What is the percentage of yield of the food item? \_\_\_\_\_.

---

B88. Go back and add any of these that you missed:

1. Visit the market.
2. Compare products for yield.
3. Compare prices of different dealers.
4. Develop good relationships with dealers.
5. Order early.
6. Buy preportioned, frozen food whenever possible.
7. Purchase in bulk when you can realize a substantial discount.
8. Set a schedule for visits by vendors.

ANSWER: 81% (yield); COMPUTATION:  $98.5 \overline{)79.60} .808$  or 81% (rounded off)  
(panel 9)

B39. 2. A banquet for 300 persons has just been accepted by your club secretary. He goes to you and asks you how many pounds of pot roast he should purchase. You know that the yield for this roast is 62% and that the portion to serve is 4 ounces. How many pounds would you tell him to purchase? \_\_\_\_\_.

B89. See if you can define the term "percentage of yield" as it pertains to food prepared for serving: \_\_\_\_\_  
\_\_\_\_\_. To determine the percentage of yield in a kitchen test, the \_\_\_\_\_ weight of the food item is divided into the \_\_\_\_\_.

ANSWER: 121 pounds to purchase

COMPUTATION:

$$\frac{300 \times 4}{.62 \times 16} = \frac{1200}{9.92} = 992.9 \text{ or } 120000.0 \text{ (panel 9)}$$

B40. Now that we have learned how the food cost control system applies to the area of open mess management called purchasing, let's discuss how it applies to the next area, receiving. How do you suppose we can control cost of purchased food by the way we receive it? There are three controls used in receiving purchased food at the open mess, as follows: (1) Orient personnel; (2) check for quantity, quality, and weight; and (3) expedite perishables.

It is the percentage left to serve after the food item is cooked or prepared purchased

weight available for serving

B90. You purchased 98.5 pounds of steak. After trimming and cooking it, you found that you had only 80 pounds left. What was the percentage of yield of the steak? \_\_\_\_\_.

B41. Let's discuss the first food cost control used in receiving purchased food which is to orient personnel. The most difficult job in the food field is to convince personnel that food is money. Checking in of purchased food must be done by competent and conscientious personnel. Receiving personnel should be spot checked at their work at irregular intervals. One of the areas most vulnerable to loss in open mess management is the receiving of food. To guard against temptation, receiving personnel should never handle cash. Strict control must be exercised over their proper handling of food to avoid damage and breakage in receipt and storage.

81%; COMPUTATION:

$$\begin{array}{r} .81 \\ 98.5 \overline{)80.0.0000} \end{array}$$

B91. You are trying to determine how much of a meat item to purchase for a banquet of 250 persons. The yield of the meat item is 60% and the portion size is 6 ounces. How many pounds will you purchase?

\_\_\_\_\_.

B42. What is the first food cost control used in receiving purchased food in the open mess? \_\_\_\_\_.

ANSWER: 156 pounds to purchase

COMPUTATION:  $\frac{250 \times 6}{.60 \times 16} = \frac{1500}{9.60} = 9.60 \overline{)1500.00} \underline{156.}$

B92. In receiving purchased food items at the open mess, there are three food cost controls used. See if you can list them:

1. \_\_\_\_\_.
2. \_\_\_\_\_.
3. \_\_\_\_\_.

orient personnel

B43. The second control used in receiving purchased food at the open mess is to check for quantity, quality, and weight. Each purchase must be checked and inspected for quality, quantity, or weight against the invoice which accompanies the order. While the driver is still there, the checker should look for short weight, substandard merchandise, partially-filled cases, and item-for-item adherence to the purchase order and invoice. Whenever possible, order and receive by weight. Items received from commissary sources may have been altered due to supply difficulties. Any differences discovered must be noted on the invoice and purchase order for use by the accounting office in computing inventory data. Stock received must be put on inventory stock cards immediately.

- 
1. orient personnel
  2. check for quantity, quality, and weight
  3. expedite perishables

B93. There are six factors that contribute to loss of stored food items.

See if you can list them:

1. \_\_\_\_\_.
2. \_\_\_\_\_.
3. \_\_\_\_\_.
4. \_\_\_\_\_.
5. \_\_\_\_\_.
6. \_\_\_\_\_.



B44. What is the second food cost control used in receiving purchased food in the open mess? \_\_\_\_\_  
\_\_\_\_\_

- 
1. high humidity and temperature
  2. theft
  3. spoilage
  4. shrinkage
  5. waste
  6. rodents and insects

B94. The basic principle of storage is \_\_\_\_\_  
\_\_\_\_\_

This means to \_\_\_\_\_  
\_\_\_\_\_

check for quantity, quality, and weight

B45. The third receiving control is to expedite perishables. When perishable items are not to be used at once, they should be tagged with the receiving date for identification purposes later. Beef should be tagged as a record of its aging. Other meat and seafood should be tagged to expedite their use.

---

first in, first out

rotate stored stock so that you use items stored the longest first

B95. See if you can list below the four control measures regarding the issue of food items:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

B46. Now see if you can list the three controls used when receiving purchased food (in any order):

1. \_\_\_\_\_.
2. \_\_\_\_\_.
3. \_\_\_\_\_.

- 
1. Only designated persons should issue food items
  2. Food should be issued only at specified times
  3. Food items should be issued only on one specific form
  4. The issue form should have a specific distribution

B96. There are three production controls governing the preparation of food. See if you can list them:

1. \_\_\_\_\_.
2. \_\_\_\_\_.
3. \_\_\_\_\_.

1. orient personnel
2. check for quality, quantity, and weight
3. expedite perishables

B47. The third area of open mess management in which the food cost control system is applied is storing. There are six factors that contribute to loss of stored food items, as follows: high humidity and temperature, theft, spoilage, shrinkage, waste, and rodents and insects. All of these loss factors increase the cost of food to the open mess and thereby raise the menu price of food items.

- 
1. planned preparation
  2. standard recipes
  3. standard portion sizes

B97. The basic principle relating to inventory control is that a \_\_\_\_\_ inventory be kept on \_\_\_\_\_ or \_\_\_\_\_ items.

B48. It is most important to stress to open mess personnel that stored food is the same as money and it must be treated with the same care as money or it will be lost. Proper control of humidity and temperature lengthens the shelf life of stored food, particularly perishable items. It also helps avoid shrinkage and waste for most items. One of the most common causes of spoilage is storage for too long a period of time. This can be avoided by purchasing wisely to avoid overstocking items, and by observing the basic principle of storage: first in, first out, meaning to rotate stored stock so that you use first the items that have been stored for the longest period of time.

---

perpetual  
expensive  
critical

B98. The six usual causes of discrepancies between the physical and closing inventories at the end of the month are:

1. \_\_\_\_\_.
2. \_\_\_\_\_.
3. \_\_\_\_\_.
4. \_\_\_\_\_.
5. \_\_\_\_\_.
6. \_\_\_\_\_.

B49. What is the first factor that contributes to the loss of stored food items in the open mess? \_\_\_\_\_.

This contributes to two other factors. What are they? \_\_\_\_\_

What is the basic principle of storage? \_\_\_\_\_

Storage for too long a period of time causes \_\_\_\_\_.

- 
1. illegible requisitions
  2. incorrect pricing
  3. mathematical errors
  4. shrinkage
  5. spoilage
  6. theft

B99. The two primary systems used in sales control are:

1. \_\_\_\_\_
2. \_\_\_\_\_

high humidity and temperature  
shrinkage and waste  
first in, first out  
spoilage

B50. To avoid theft, food items that are subject to easy theft should be properly safeguarded. Rodent and insect control is important in controlling loss of stored food items in the open mess.

PLEASE RETURN TO PAGE 1 AND CONTINUE WITH FRAME B51.

- 
1. keeping a history of sales
  2. controlling guests' checks

B100. The food checker keeps a record showing the \_\_\_\_\_ of each food item sold, either by \_\_\_\_\_ item or entire \_\_\_\_\_ selections. The cashier verifies the \_\_\_\_\_ of each item, records it on the \_\_\_\_\_, and collects \_\_\_\_\_.

---

number

individual

menu

sales price

cash register

cash

B101. This completes Sequence B.



**U.S. ARMY QUARtermaster SCHOOL  
FORT LEE, VIRGINIA**



**SUPPLY TRAINING CENTER OF THE ARMY SCHOOL SYSTEM**

**SEPTEMBER 1970**

**This volume supersedes 161 PB, dtd February 1970.**

Army-Fort Lee, Va.-8854-70-2M-4

PLAN FOR A SELECTIVE MENU

Two soups, two fruit cocktails, tomato or mixed vegetable juice.

Entrees to include three meat dishes (one expensive, one medium priced, and one inexpensive), one fish or poultry entree, one meatless plate, and one cold entree.

Two kinds of potatoes and three other vegetables.

Fruit or vegetable salads.

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One gelatin, one pudding, one cake, three kinds of ice cream, three kinds of pie or pastry, fruit cup of some kind, fresh fruit or berries in season, or cheese and crackers.

PANEL 1

STUDENT NOTE: Complete instructions for completing the scatter sheet can be found in USCONARC Pamphlet No. 230-1.

SCATTER SHEET				
SALES PRICE	MENU ITEM	TIMES SOLD	TOTAL	SALES VALUE
25% Cost				
\$ .25	Hamburger		26	\$ 6.50
.20	Cheese Sandwich		6	1.20
.30	Egg Salad Sandwich		10	3.00
.20	Jello Salad		5	1.00
30% Cost				
.25	Pie, Cherry and Apple		13	3.25
.20	Ice Cream		15	3.00
.35	Cheeseburger		30	10.50
.40	Ham Sandwich		15	6.00
.30	Waldorf Salad		12	3.60
2.00	Baked Ham Dinner		25	50.00
1.75	Fried Chicken Dinner		20	35.00
35% Cost				
.55	Pork Sandwich, Hot		10	5.50
.55	Beef Sandwich, Hot		20	11.00
.90	Shrimp Salad		30	27.00
1.75	Turkey Dinner		25	43.75
1.50	Pork Chop Dinner		5	7.50
.35	Ice Cream, Sundae		25	8.75
40% Cost				
1.00	Lobster Cocktail		20	20.00
.80	Club Sandwich		35	28.00
1.50	Pork Tenderloin Dinner		12	18.00
2.40	Filet Mignon Dinner		25	60.00
.40	French Pastry		15	6.00
45% Cost				
1.00	Oyster Cocktail		20	20.00
1.25	Fruit Salad Plate		23	28.75
1.80	Rib Steak Dinner		10	18.00
2.75	Rainbow Trout Dinner		31	85.25
2.50	Prime Rib Dinner		7	17.50
.10	Coffee		46	4.60
.10	Milk		35	3.50
50% Cost				
.40	Asparagus Tea Salad		30	12.00
1.00	Prime Rib Sandwich		19	19.00
3.50	T-Bone Steak, 16 oz		35	122.50
3.25	New York Cow Steak, 14 oz		17	55.25
.45	Strawberry Shortcake		35	15.75
55% Cost				
.35	Chef's Salad Bowl		25	8.75
1.25	Calf's Liver Dinner		26	32.50
2.50	Lobster Tails		7	17.50
			TOTAL	\$819.40



SCATTER SHEET RECAP							
Items	25% Cost	30% Cost	35% Cost	40% Cost	45% Cost	50% Cost	55% Cost
Cost	.004	.041	.044	.064	.097	.137	.039 - .426
Of Food Cost	1%	11%	11%	15%	23%	30%	9% - 100%

REMARKS AND RECOMMENDATIONS:

SAMPLE

USCONARC FORM 260-R  
Jan 67

Panel 2.1

## FORECASTING SALES SHEET

Friday Luncheon - 11 May 19--

Estimated Orders To Be Sold	Amount Raw Food Needed	Amount on Hand	ENTREES	Amount of Food Prepared	Number of Orders Sold	Number of Orders Eaten by Employees	Amount of Leftovers	Special Conditions
			Chow Mein with Toasted Almonds					
20	6 1/4 lb.	2 lb.	French Fried Shrimp	6 1/4 lb.	16	2	10 oz.	
50	18 lb.	0	Roast Leg of Veal (Boneless)	18 lb.	43	7	-	
			Luncheon Tenderloin Steak					
			Ground Choice Beefsteak					
			Tropical Fruit Cup					
			Seafood Cocktail					
			Chilled Orange Juice					
			Cold Fruit Plate					
			Apple Pie					
			Nesselrode Cake					

## RECIPE FOOD COST CARD

RECIPE FOR WHEAT GRIDDLE CAKESDATE -- July 19--FOR 75 PORTIONS

Ingredients	Quantity	Unit	Unit Cost	Amount
Flour, sifted	11-1/4	Lbs.	.10	1.1250
Sugar, granulated	1-1/8	Lbs.	.08	.0900
Baking powder	12-3/4	Oz.	.01	.1275
Salt	3-3/4	Oz.	.01	.0375
Milk	2-1/3	Gal.	.65	1.5166
Eggs, well beaten	3-1/6	Doz.	.45	1.4250
Shortening, melted	1-1/2	Lbs.	.30	.4500
COMBINED INGREDIENT COST				\$4.7716

YIELD		Portion Size	Portions Yielded	Portion Cost	Portion Selling Price	Food Cost %	Anticipated Gross Profit %
Quantity	Unit						
300	Cake	4 cakes	75	\$.06 <sup>4</sup>	\$.16	40%	60%

Steps in Preparation

4 Tbsp batter per cake

High	Medium	Low

POPULARITY

X		
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PANEL 3

## RECIPE FOOD COST CARD

RECIPE FOR CREAM OF ONION SOUPDATE -- July 19--FOR 75 PORTIONS

Ingredients	Quantity	Unit	Unit Cost	Amount
Onions	5-1/4	Lbs.	.04	
Water, boiling	6	Qts.	---	---
Beef stock	2-1/8	Gal.	.35	.7437
Milk	1	Gal.	.65	
Salt	4	Oz.	.01	
Carrots, chopped fine	3/4	Lbs.	.04	
Fat, melted	3/4	Lbs.	.30	
Flour	3/4	Lbs.	.10	
COMBINED INGREDIENT COST				1.9737

YIELD		Portion Size	Portions Yielded	Portion Cost	Portion Selling Price	Food Cost %	Anticipated Gross Profit %
Quantity	Unit						
75	cup	1 cup	75				55%

Steps in Preparation

	High	Medium	Low
POPULARITY	X		

PANEL 3.1





# MARK-UP TABLE

← PORTION COST →

← FOOD COST PERCENTAGE →  
Panel 5

%	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	75	80	85	90	95	100
25	08	16	24	32	40	48	56	64	72	80	88	96	104	112	120	128	136	144	152	160	168	176	184	192	200	208	216	224	232	240	248	256	264	272	280	300	320	340	360	380	400
30	07	13	20	27	33	40	47	53	60	67	73	80	87	93	100	107	131	120	127	133	140	145	153	160	167	173	180	186	193	200	206	213	220	226	233	250	266	283	300	317	333
32	06	13	19	25	31	36	44	50	56	63	69	75	81	88	94	100	106	118	119	125	131	138	144	150	156	163	169	175	181	188	194	200	206	213	219	234	250	266	281	297	313
34	06	12	18	24	29	35	41	47	53	59	65	71	76	82	88	94	100	106	112	118	123	129	135	141	147	153	159	165	171	176	182	188	194	200	206	221	235	250	265	279	294
36	06	11	17	22	28	33	39	44	50	56	61	67	72	78	83	89	95	100	106	111	117	122	128	133	139	144	150	156	161	167	172	178	183	189	194	208	222	236	250	264	278
38	05	11	16	21	26	32	37	42	47	53	58	63	68	74	79	84	90	95	100	105	111	116	121	126	132	137	142	147	153	158	163	168	174	179	184	197	210	224	237	250	263
40	05	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	188	200	213	225	238	250
42	05	10	14	19	24	29	33	38	43	48	52	57	62	67	71	76	81	86	90	95	100	105	109	114	119	124	128	132	137	143	148	152	157	162	166	179	190	202	214	226	238
44	05	09	14	18	23	27	32	36	41	46	50	55	59	64	68	73	77	82	86	91	96	100	105	109	114	118	123	127	132	136	141	145	150	155	159	170	182	193	205	216	227
46	04	09	13	17	22	26	30	35	39	44	48	52	57	61	65	70	74	78	83	87	91	96	100	104	109	113	117	122	126	130	135	139	143	148	152	163	174	185	198	207	217
48	04	08	13	17	21	25	29	33	38	42	46	50	54	58	63	67	71	75	79	83	87	92	96	100	104	108	112	117	121	125	129	133	137	142	146	156	167	177	187	198	208
50	04	08	12	16	20	24	28	32	36	40	44	48	52	56	60	64	68	72	76	80	84	88	92	96	100	104	108	112	116	120	124	128	132	136	140	150	160	170	180	190	200
52	04	08	12	15	19	23	27	31	35	38	42	46	50	54	58	62	65	69	73	77	81	85	88	92	96	100	104	108	111	115	119	123	127	131	135	144	154	163	173	183	192
54	04	07	11	15	19	22	26	30	33	37	41	44	48	52	56	59	63	67	70	74	78	82	85	89	93	96	100	104	107	111	115	119	122	126	130	139	148	157	167	176	185
56	04	07	11	14	18	21	25	29	32	36	39	43	46	50	54	57	61	64	68	71	75	79	82	86	89	93	96	100	104	107	111	114	118	121	125	134	143	152	161	170	179
58	04	07	10	14	17	21	24	28	31	35	38	41	45	48	52	55	59	62	66	69	72	76	79	83	86	90	93	97	100	103	107	110	114	117	121	129	138	147	155	164	172
60	03	07	10	13	17	20	23	27	30	33	37	40	43	47	50	53	57	60	64	67	68	74	77	80	84	87	90	94	97	100	104	107	110	114	117	125	134	142	150	158	167

← SALES PRICE →

Sale Price is found by determining Portion Cost and Food Cost percentage desired. Where these lines cross is the price that must be charged.

## FORMULAS AND EXAMPLES

1.  $\frac{\text{Number of persons to serve} \times \text{desired portion size}}{\text{percentage of yield} \times 16 \text{ oz}} = \text{Number of pounds to purchase}$

Example: You want to serve 200 persons a 6 oz. portion of steak. You know that steak has an 80% yield. How many pounds would you purchase?

$$\frac{200 \times 6 \text{ oz.}}{.80 \times 16 \text{ oz.}} = \frac{1200}{12.80} = 93.7 \text{ or } 94$$

2.  $\frac{\text{Price per raw lb} \times \text{desired portion size}}{\text{percentage of yield} \times 16 \text{ oz.}} = \text{cost per cooked portion (item with loss factor)}$

Example: You know that chicken costs you 90¢ a lb and you want to serve an 8 oz. portion. Chicken has a 60% yield. What is your cost per cooked portion?

$$\frac{.90 \times 8 \text{ oz.}}{.60 \times 16 \text{ oz.}} = \frac{7.20}{9.60} = .75$$

3.  $\frac{\text{Price per lb} \times \text{portion size}}{16 \text{ oz.}} = \text{cost per cooked portion (item with no loss factor)}$

Example: You are paying \$1.20 a lb (16 oz) for boneless cooked turkey roll. You want to serve a 10-oz. portion. What does this portion cost you?

$$\begin{array}{r} \text{a. } 1.20 \\ \times 10 \\ \hline 12.00 \end{array} \quad \text{b. } \frac{16}{12.0000} = .7500$$

4.  $\frac{\text{Cost of item (or menu)}}{\text{Food Cost percentage}} = \text{Portion (or menu) selling price.}$

Example: You know the peas cost you \$.064 a portion. If you are using a 40% food cost percentage, what is your portion selling price?

$$\frac{.064}{.40} = .16$$

5. 100 percent - gross profit = food cost percentage.

Example: You are generating a 55 percent gross profit in your kitchen. What is your food cost percentage?

$$100 - 55 = 45\%$$

PANEL 6

6.  $\frac{\text{Cost of item}}{\text{Menu selling price}} = \text{Food cost percentage}$

Example: A salad costs you 30¢ and you are selling it for 45¢. What is the food cost percentage for this item?

$$\frac{.30}{.45} = \frac{0.66}{1.35} \quad \text{or} \quad \frac{0.66}{1.3500}$$

7.  $\text{Opening inventory} - \text{closing inventory} = \text{cost of goods sold}$

Example: 0100 hours on 2 May, your kitchen inventory reveals \$80 worth of foodstuff. During the day, 2 May, the kitchen is issued \$130 worth of food. At the end of the day your kitchen closing inventory reveals you have \$30 left. What was the cost of goods sold (kitchen) for 2 May?

Opening inventory	\$80.00
Issues to kitchen	<u>130.00</u>
Total	\$210.00
Closing Inventory	<u>- 30.00</u>
	\$180.00 (cost of goods sold)

8.  $\frac{\text{Cost of goods sold}}{\text{Sales receipts}} = \text{Food cost percentage for a day or meal}$

Example: On 2 May your cost of goods sold was \$180. Your sales receipts for the same day were \$400. What was your food cost percentage for 2 May?

$$\frac{180.}{400.} = .45$$

PANEL 6.1

135

RECIPE FOOD COST CARD

RECIPE FOR CREAM OF ONION SOUP

DATE -- July 19--

FOR 75 PORTIONS

Ingredients	Quantity	Unit	Unit Cost	Amount
Onions	5-1/4	Lbs.	.04	.2100
Water, boiling	6	Qts.	--	----
Beef stock	2-1/8	Gal.	.35	.7437
Milk	1	Gal.	.65	.6500
Salt	4	Oz.	.01	.0400
Carrots, chopped fine	3/4	Lbs.	.04	.0300
Fat, melted	3/4	Lbs.	.30	.2250
Flour	3/4	Lbs.	.10	.0750
COMBINED INGREDIENT COST				1.9737

YIELD		Portion Size	Portions Yielded	Portion Cost	Portion Selling Price	Food Cost %	Anticipated Gross Profit %
Quantity	Unit						
75	cup	1 cup	75	.026	.06	45%	55%

Steps in Preparation

	High	Medium	Low
POPULARITY	X	_____	_____

PANEL 7



<u>ITEM</u>	<u>NO. PLACES TO CARRY BEYOND DECIMAL</u>
Combined Ingredient Cost-----	4 rounded off*
Portion cost-----	3 " "
(when costing entire meal)	4 " "
Unit cost-----	2 " "
Portion selling price-----	2 " "
Number of pounds to purchase-----	2 " "
Percentage of yield-----	2 " "
Food cost percentage-----	2 " "
Net and gross profit percentage-----	2 " "

\*Rule for rounding off: A fraction of a cent less than 5 mills is disregarded, and each fraction of 5 mills or more is computed as a whole cent. For example, \$.156 would be rounded off to \$.16, as the 6 is a fraction of a cent more than 5 mills. \$.154 would be rounded off to \$.15, as the 4 is a fraction of a cent less than 5 mills, and it is disregarded.

PANEL 9

## MEAT YIELD CHART

All the yields are based on many hundreds of tests and are general averages. They allow for waste in trimming the meat, cooking, shrinkage, and small-end waste. Determination of exact shrink for each meat item which is cooked is advisable.

	<i>Net Servable Cooked Yield</i>		<i>Net Servable Cooked Yield</i>		<i>Net Servable Cooked Yield</i>
<b>BEEF</b>		<b>BEEF (Continued)</b>		<b>VEAL (Continued)</b>	
Roast Sirloin (boneless) ..	70%	Chef's Delight Beef Rib ..	60%	Roast Loin .....	50%
Pot Roast .....	60%	Boneless Round .....	60%	Veal Loin Chop (bone-in) ..	75%
Chopped Beef .....	75%	Fresh Bone-in		Veal Rib Chop (bone-in) ..	75%
Short Ribs (bone in) .....	60%	Beef Brisket .....	45%		
Corned Beef (Brisket) .....	60%	Hotel Special Rib Steak		<b>PORK</b>	
Beef Liver .....	75-90%	Roll .....	75%	Breaded Tenderloin .....	100%
Stew (boneless) .....	75%	Beef Round R&S Off .....	50%	Sausage Patties .....	55%
Swiss Steak .....	70%			Breaded Pork Chop (bnls.) ..	90%
Tenderloin Steak .....	90%	<b>LAMB</b>		Pork Chops (bone in) .....	80%
Sirloin Steak (bnls. strip) ..	75 1/2%	Roast Leg .....	45%	Spareribs .....	65%
Sirloin Steak		Roast Loin .....	40%	Roast Pork Loin .....	50%
(bone-in strip) .....	80%	Lamb Stew (boneless) .....	75%	Ham Steak (bone in) .....	80%
Minute Steak (bnls. butt)	80%			Baked Ham (bone in) .....	65%
Boneless Top and Bottom		<b>VEAL</b>		Roast Fresh Ham .....	50%
Round Roast .....	70%	Veal Cutlet (boneless) .....	80%		
Knuckle Butt Roast .....	65%	Calf's Liver .....	75%	<b>POULTRY</b>	
Shoulder Clod Roast .....	70%	Roast Leg .....	50%	Fried Chicken, 2 lbs. ....	100%
Oven-prepared Beef Rib ..	50%			Turkey, 18 lbs./up .....	40%

Panel 10

**COST CONTROL SHEET  
(FOR ENTIRE MEAL)**

Food Item	Size of Portion Served	Total Amt to Purchase per Portion	Unit of Purchase	Cost per Unit	Portion Cost (Cost per Person)
<b>DINNER</b>					
Chilled tomato juice	3 oz.	3 oz.	qt. (32 oz)	\$.21	\$.0198
Roast Turkey (boned, rolled)	8 oz.	8 oz.	lb. (16 oz)	.40	.2000
Fresh asparagus spears	3 oz	1/7 bunch (3 oz.)	bunch (21 oz)	..35	.0500
Baked potato	4 oz.	4 oz.	lb. (16 oz)	.06	.0150
Lettuce wedges	1/5 head	1/5 head	head	.10	.0200
French dressing	1 oz.	1 oz.	gal. (128 oz)	2.50	.0195
Hot rolls	2 ea.	2 ea.	doz.	.18	.0300
Beverage (coffee)	1 cup	1/50 can	2-lb can	2.03	.0406
Mincemeat Pie (a la mode)	1/6 pie	1/6 pie	pie	.50	.0833
Ice cream	1 #16 scoop	1/33 gal.	gal.	1.15	.0349

**TOTAL FOOD COST**

**\$.5131**

PANEL II

## MEAT PORTION COST FINDER FOR WHOLESALE CUTS (LOSS FACTOR)

Select the percentage of yield and the desired portion size from the chart below. Multiply the figure that you find by your cost per raw pound and this will give you the cost per cooked portion serving.

**EXAMPLE:** Beef ribs cost 50 cents per pound. We find they have a 40% yield. We want to serve a 6-oz. cooked portion. Therefore, our multiplier is .937.

$$\begin{array}{r} .937 \\ \times .50 \\ \hline \end{array}$$

**.46850 or 47 cents per cooked portion.**

### PERCENTAGE OF YIELD

Portion Size	30%	35%	40%	45%	50%	55%	60%	65%	70%	75%	80%	85%	90%	95%	Portion Size
2 oz.	.416	.355	.312	.277	.25	.227	.208	.192	.178	.166	.156	.147	.138	.132	2 oz.
3 oz.	.625	.535	.468	.416	.375	.340	.312	.288	.267	.25	.234	.22	.208	.197	3 oz.
4 oz.	.833	.714	.625	.555	.50	.454	.416	.375	.357	.333	.312	.294	.277	.263	4 oz.
5 oz.	1.04	.893	.796	.694	.625	.568	.52	.48	.416	.416	.39	.367	.347	.329	5 oz.
6 oz.	1.25	1.07	.937	.833	.75	.661	.625	.576	.535	.5	.468	.441	.416	.394	6 oz.
7 oz.	1.46	1.25	1.09	.972	.875	.795	.728	.673	.625	.583	.547	.514	.486	.460	7 oz.
8 oz.	1.66	1.43	1.25	1.11	1.0	.909	.833	.769	.714	.666	.625	.588	.555	.526	8 oz.
9 oz.	1.87	1.60	1.4	1.25	1.12	1.02	.927	.865	.803	.75	.703	.661	.625	.592	9 oz.
10 oz.	2.08	1.78	1.56	1.38	1.25	1.13	1.04	.961	.892	.833	.781	.735	.694	.651	10 oz.
11 oz.	2.29	1.96	1.71	1.52	1.37	1.25	1.14	1.05	.982	.916	.859	.809	.763	.736	11 oz.
12 oz.	2.5	2.14	1.87	1.66	1.5	1.36	1.25	1.15	1.07	1.0	.937	.882	.833	.788	12 oz.

Panel 12

### MEAT PORTION COST FINDER FOR PORTION CUT MEATS (NO LOSS FACTOR)

50c to \$1.25 Per Pound

Per Lb.	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95	1.00	1.05	1.10	1.15	1.20	1.25	Per Lb.
Per oz.	.031	.034	.039	.041	.044	.047	.05	.053	.056	.059	.063	.066	.069	.072	.075	.078	Per oz.
3 oz.	.09	.10	.11	.12	.13	.14	.15	.16	.17	.18	.19	.20	.21	.22	.23	.24	3 oz.
4 oz.	.12	.14	.15	.16	.18	.19	.20	.21	.23	.24	.25	.26	.28	.29	.30	.31	4 oz.
5 oz.	.16	.17	.19	.20	.22	.23	.25	.27	.28	.30	.31	.33	.34	.36	.38	.39	5 oz.
6 oz.	.19	.21	.23	.24	.26	.28	.30	.32	.34	.36	.38	.39	.41	.43	.45	.47	6 oz.
7 oz.	.22	.24	.26	.28	.31	.33	.35	.37	.39	.42	.44	.46	.48	.50	.53	.55	7 oz.
8 oz.	.25	.28	.30	.32	.35	.38	.40	.42	.45	.48	.50	.52	.55	.58	.60	.63	8 oz.
9 oz.	.28	.31	.34	.37	.39	.42	.45	.48	.51	.53	.56	.59	.62	.65	.68	.70	9 oz.
10 oz.	.31	.34	.38	.41	.44	.47	.50	.53	.56	.59	.63	.66	.69	.72	.75	.78	10 oz.
11 oz.	.34	.38	.41	.45	.48	.52	.55	.58	.62	.65	.69	.72	.76	.79	.83	.86	11 oz.
12 oz.	.37	.41	.45	.49	.53	.56	.60	.64	.68	.71	.75	.79	.83	.86	.90	.94	12 oz.
13 oz.	.41	.45	.49	.53	.57	.61	.65	.69	.73	.77	.81	.85	.89	.93	.98	1.02	13 oz.
14 oz.	.44	.48	.53	.57	.61	.66	.70	.74	.79	.83	.88	.92	.96	1.01	1.05	1.09	14 oz.
15 oz.	.47	.52	.56	.61	.66	.70	.75	.80	.84	.89	.94	.98	1.03	1.08	1.13	1.17	15 oz.
1 lb.	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95	1.00	1.05	1.10	1.15	1.20	1.25	1 lb.

\$1.30 to \$2.00 Per Pound

Per Lb.	1.30	1.35	1.40	1.45	1.50	1.55	1.60	1.65	1.70	1.75	1.80	1.85	1.90	1.95	2.00	Per Lb.
Per oz.	.081	.084	.088	.091	.094	.097	.10	.103	.106	.109	.113	.116	.119	.122	.125	Per oz.
3 oz.	.24	.25	.26	.27	.28	.29	.30	.31	.32	.33	.34	.35	.36	.37	.38	3 oz.
4 oz.	.33	.34	.35	.36	.38	.39	.40	.41	.43	.44	.45	.46	.48	.49	.50	4 oz.
5 oz.	.41	.42	.44	.45	.47	.48	.50	.52	.53	.55	.56	.58	.59	.61	.63	5 oz.
6 oz.	.49	.51	.53	.54	.56	.58	.60	.62	.64	.66	.68	.69	.71	.73	.75	6 oz.
7 oz.	.57	.59	.61	.63	.66	.68	.70	.72	.74	.77	.79	.81	.83	.85	.88	7 oz.
8 oz.	.65	.68	.70	.72	.75	.78	.80	.82	.85	.88	.90	.92	.95	.98	1.00	8 oz.
9 oz.	.73	.76	.79	.82	.84	.87	.90	.93	.96	.98	1.01	1.04	1.07	1.10	1.13	9 oz.
10 oz.	.81	.84	.88	.91	.94	.97	1.00	1.03	1.06	1.09	1.13	1.16	1.19	1.22	1.25	10 oz.
11 oz.	.89	.93	.96	1.00	1.03	1.07	1.10	1.13	1.17	1.20	1.24	1.27	1.31	1.34	1.38	11 oz.
12 oz.	.98	1.01	1.05	1.09	1.13	1.16	1.20	1.24	1.28	1.31	1.35	1.39	1.43	1.46	1.50	12 oz.
13 oz.	1.06	1.10	1.14	1.18	1.22	1.26	1.30	1.34	1.38	1.42	1.46	1.50	1.54	1.58	1.63	13 oz.
14 oz.	1.14	1.18	1.23	1.27	1.31	1.36	1.40	1.44	1.49	1.53	1.58	1.62	1.66	1.71	1.75	14 oz.
15 oz.	1.22	1.27	1.31	1.36	1.41	1.45	1.50	1.55	1.59	1.64	1.69	1.73	1.78	1.83	1.88	15 oz.
1 lb.	1.30	1.35	1.40	1.45	1.50	1.55	1.60	1.65	1.70	1.75	1.80	1.85	1.90	1.95	2.00	1 lb.

Panel 13

### MEAT PORTION COST FINDER FOR PORTION CUT MEATS (NO LOSS FACTOR)

\$2.05 to \$3.50 Per Pound

Per Lb.	2.05	2.10	2.15	2.20	2.25	2.30	2.35	2.40	2.45	2.50	2.60	2.75	3.00	3.25	3.50	Per Lb.
Per oz.	.128	.131	.134	.138	.141	.144	.146	.15	.153	.156	.163	.172	.188	.203	.219	Per oz.
3 oz.	.38	.39	.40	.41	.42	.43	.44	.45	.46	.47	.49	.52	.56	.61	.66	3 oz.
4 oz.	.51	.53	.54	.55	.56	.58	.59	.60	.61	.63	.65	.69	.75	.81	.88	4 oz.
5 oz.	.64	.66	.67	.69	.70	.72	.73	.75	.77	.78	.81	.86	.94	1.02	1.09	5 oz.
6 oz.	.77	.79	.81	.83	.84	.86	.88	.90	.92	.94	.98	1.03	1.13	1.22	1.31	6 oz.
7 oz.	.90	.92	.94	.96	.98	1.01	1.03	1.05	1.07	1.09	1.14	1.21	1.31	1.42	1.53	7 oz.
8 oz.	1.02	1.05	1.08	1.10	1.12	1.15	1.18	1.20	1.22	1.25	1.30	1.38	1.50	1.62	1.75	8 oz.
9 oz.	1.15	1.18	1.21	1.24	1.27	1.29	1.32	1.35	1.38	1.41	1.46	1.55	1.69	1.83	1.97	9 oz.
10 oz.	1.28	1.31	1.34	1.38	1.41	1.44	1.47	1.50	1.53	1.56	1.63	1.72	1.88	2.03	2.19	10 oz.
11 oz.	1.41	1.44	1.48	1.51	1.55	1.58	1.62	1.65	1.68	1.72	1.79	1.90	2.06	2.23	2.41	11 oz.
12 oz.	1.54	1.58	1.61	1.65	1.69	1.73	1.76	1.80	1.84	1.88	1.95	2.07	2.25	2.44	2.63	12 oz.
13 oz.	1.67	1.71	1.75	1.79	1.83	1.87	1.91	1.95	1.99	2.03	2.11	2.24	2.44	2.64	2.84	13 oz.
14 oz.	1.79	1.84	1.88	1.93	1.97	2.01	2.06	2.10	2.14	2.19	2.28	2.41	2.63	2.84	3.06	14 oz.
15 oz.	1.90	1.91	2.02	2.06	2.11	2.16	2.20	2.25	2.30	2.34	2.44	2.58	2.81	3.05	3.28	15 oz.
1 lb.	2.05	2.10	2.15	2.20	2.25	2.30	2.35	2.40	2.45	2.50	2.60	2.75	3.00	3.25	3.50	1 lb.

Panel 13.1

**MENU PRICING GUIDE**

<i>Per Cent Food Cost</i>	<i>Factor</i>	<i>Per Cent Food Cost</i>	<i>Factor</i>	<i>Per Cent Food Cost</i>	<i>Factor</i>
30	3.3	37	2.7	44	2.27
31	3.2	38	2.63	45	2.22
32	3.1	39	2.56	46	2.17
33	3.0	40	2.5	47	2.12
34	2.94	41	2.43	48	2.08
35	2.85	42	2.38	49	2.04
36	2.8	43	2.32	50	2.00

Multiply the factor for your food cost percentage by the total food cost for the menu to obtain your menu price.

EXAMPLE: Total food cost for menu = \$1.00  
 Food cost percentage = 33%

$$1.00 \times 3.0 = \$3.00$$

## TABLE D'HOTE MENU

Tomato Juice

Roast Leg of Veal

Baked Potato

Fresh Peas

Lettuce Wedge

French Dressing

Hot Rolls

Butter

Ice Cream

Coffee

COST CONTROL SHEET					
Food Item	Size of Portion Served	Total Amt to Purchase per Portion	Unit of Purchase	Cost per Unit	Portion Cost (Cost per Person)
<b>DINNER</b>					
Chilled tomato juice	4 oz.	4 oz.	qt. (32 oz)	\$.30	
Roast Leg of Veal (loss factor 50%)	12 oz.	24 oz.	lb. (16 oz)	.60	
Baked Potato	4 oz.	4 oz.	lb. (16 oz)	.04	
Fresh Peas	2 oz.	2 oz.	lb (16 oz)	.22	
Lettuce Wedge	1/4 hd.	1/4 hd.	head	.19	
Fr. Dressing	3 oz.	3 oz.	qt (32 oz)	.35	
Hot Rolls	2 ea.	2 ea.	dozen	.22	
Ice Cream	1 #16 scoop	1/8 qt.	qt. (32 oz)	.24	
Coffee	1 cup	1/25 lb.	lb (16 oz)	1.00	
Cream	1/2 oz.	1/2 oz.	qt (32 oz)	.64	
Butter & other seasonings					.0100
<b>TOTAL FOOD COST</b>					

PANEL 15



1. Portion control meat (no loss factor) costs you \$1.05 per pound. What is the cost of a 6 ounce serving? \_\_\_\_\_.
2. When an item costs you 28¢ and you wish to generate a 55% gross profit, what is your selling price (to nearest nickel)?  
\_\_\_\_\_.
3. An item costs you 15¢ and you are working on a 45% food cost percentage. What is your menu selling price (to nearest nickel)?  
\_\_\_\_\_.
4. In your open mess, you expect 150 persons for lunch. You are going to serve a 6 ounce slice of turkey to each person. You know that turkey has a 35% yield. How many pounds of turkey will you purchase? \_\_\_\_\_.
5. Veal cutlets cost you \$1.35 per raw pound. You want to serve 6 ounce patties. Veal has a 65% yield. What is the cost per cooked portion? \_\_\_\_\_.
6. Your kitchen opening inventory for 2 May was \$60.00. Your issues for the day were \$70.00. Your closing inventory for 2 May was \$20.00. What is your cost of goods sold in the kitchen for 2 May? \_\_\_\_\_.
7. An item is selling on your menu for 30¢ and the item costs you 20¢. What is your food cost percentage for this item?  
\_\_\_\_\_.
8. In February your kitchen cost of goods sold and sales receipts are as follows:

	<u>Cost of Goods Sold</u>	<u>Sales Receipts</u>	<u>Food Cost % (rounded off)</u>
1 February	\$400.00	\$900.00	
2 February	\$500.00	\$1250.00	

- a. What is your food cost percentage for 1 February? \_\_\_\_\_.
  - b. What is the accumulated food cost percentage through 2 February?  
\_\_\_\_\_.
9. You are serving prime ribs of beef to a banquet of 25 persons. Your kitchen tests show these ribs will give you 60% yield and your purchase price for the raw meat is \$0.86 per pound.
    - a. Give the number of pounds of prime ribs to purchase, if you are serving a 6 oz. portion?
    - b. Give the portion cost of the 6 oz. serving.

Panel 17

10. A banquet for 300 persons has just been accepted by your club secretary. He in turn goes to you (a graduate of this course) and asks you how many pounds of pot roast he should purchase. You know the yield test for your specified roast is 62% and the portion served is 4 oz. How many pounds should be purchased?
11. After a close analysis of your menu, you have found that an a la carte tossed green salad costs you \$0.43. If your open mess is working on a 51% food cost, what will be the selling price of this salad (to nearest nickel)?
12. Your total cost of goods sold (food) is \$78.00. Your food sales for the same period are \$181.00. Determine your food cost percentage.
13. You are serving a 7 oz. portion of a wholesale cut of beef; your kitchen tests show a 67% yield and your cost per raw pound is \$0.62.
- Determine the cost of a cooked 7 oz. serving.
  - With a 47% food cost percentage what will be your portion selling price?
14. You buy a 24 pound turkey at a price of \$0.41 per pound. Your kitchen tests show a yield of 35%.
- What is the cost of a 2 oz. serving?
  - What is the cost of a 3 oz. serving?
15. A portion controlled meat (no loss factor) costs you \$1.30 per pound. What is the cost of a 6 oz. serving?
16. Your issue slips and kitchen inventories have given you the cost of goods sold for the following days:
- |         |        |
|---------|--------|
| 1 March | \$420. |
| 2 March | 200.   |
| 3 March | 400.   |
- Your sales receipts for these respective days are as follows:
- |         |        |
|---------|--------|
| 1 March | \$800. |
| 2 March | 500.   |
| 3 March | 680.   |
- What is the daily food cost percentage for each day?

Panel 17-continued

- b. What is the accumulated food cost percentages through the 2nd of March?
  - c. What is the accumulated food cost percentage through the 3rd of March?
17. You purchase sirloin steaks (bone in strip) for \$1.26 per pound. What is the cost of a 10 oz. cooked portion when costing the entire meal?
18. A portion controlled meat having no loss factor cost you 40¢ per serving portion. You sold it for 60¢ per serving portion. What was your food cost percentage?

Panel 17-continued

## SOLUTION SHEET

1. Answer: \$.394 Computation:  $\frac{1.05 \times 6}{16} = \frac{6.30}{16} = .394$  (formula 3)  
panel 6

2. Answer: \$.60 Computation:  $100\% - 55\% = 45\%$  food cost %;  
(formula 5)  
panel 6

(formula 4) panel 6	$\begin{array}{r} .62 \text{ or } .60 \text{ (to} \\ .45 \overline{) .28.0} \text{ nearest} \\ \underline{27 \ 0} \text{ nickel)} \\ 1 \ 00 \\ \underline{\quad 90} \\ 10 \end{array}$	OR 2.22 $\begin{array}{r} \times \ .28 \text{ (panel 14)} \\ 17 \ 76 \\ \underline{44 \ 4} \\ .62 \ 76 \text{ or } .60 \text{ (to} \\ \text{nearest} \\ \text{nickel)} \end{array}$
------------------------	--	--

3. Answer: \$.35 Computation:

(formula 4) panel 6	$\begin{array}{r} .33 \text{ or } .35 \text{ (to} \\ .45 \overline{) .15.000} \text{ nearest} \\ \underline{13 \ 5} \text{ nickel)} \\ 1 \ 50 \\ \underline{\quad 1 \ 35} \\ 150 \end{array}$	OR 2.22 $\begin{array}{r} \times \ .15 \\ 11 \ 10 \\ \underline{22 \ 2} \\ .33 \ 30 \text{ or } .35 \text{ (to} \\ \text{nearest} \\ \text{nickel)} \end{array}$
------------------------	---	---

4. Answer: 161 lb. Computation:  $\frac{150 \times 6}{.35 \times 16} = \frac{900}{5.60} = 160.7$  or 161 (formula 1)  
panel 6

5. Answer: \$.78 Computation:  $\frac{1.35 \times 6}{.65 \times 16} = \frac{8.10}{10.40} = .779$  or .78  
(formula 2)  
panel 6

6. Answer: \$110. Computation: 60. (formula 7, panel 6.1)  

$$\begin{array}{r} +70. \\ 130. \\ -20. \\ \hline 110. \end{array}$$

7. Answer: 67% Computation:  $\frac{.20}{.30} = .666$  or .67 (formula 8)  
panel 6.1

8. Answer: 44% Computation:

$\begin{array}{r} .444 \text{ or } 44\% \\ 900 \overline{) 400.000} \\ \underline{360 \ 0} \\ 40 \ 00 \\ \underline{36 \ 00} \\ 4 \ 000 \\ \underline{3 \ 600} \end{array}$	(formula 8) panel 6.1
---	--------------------------

Panel 17.1

b. Answer: 42% Computation:

$$\begin{array}{r}
 900 \quad 400 \\
 + \frac{1250}{2150} + \frac{500}{900} \\
 \hline
 \end{array}
 \qquad
 \begin{array}{r}
 2150 \overline{) 900.000} \\
 \underline{860 \phantom{0}} \\
 40 \phantom{00} \\
 \underline{21 \phantom{50}} \\
 18 \phantom{500} \\
 \underline{17 \phantom{200}} \\
 1 \phantom{3000} \\
 \underline{1 \phantom{2900}} \\
 100
 \end{array}
 \quad \text{or } .42 \quad \text{(formula 8, panel 6.1)}$$

9. a. Answer: 16 lb. Computation:  $\frac{25 \times 6}{.60 \times 16} = \frac{150}{9.60} = 15.6$  or 16 lb. (formula 1, panel 6)

b. Answer: \$.537 Computation:  $\frac{.86 \times 6}{.60 \times 16} = \frac{5.16}{9.60} = .537$  (formula 2, panel 6)

10. Answer: 121 lb. Computation:  $\frac{300 \times 4}{.62 \times 16} = \frac{1200}{9.92} = 120.9$  or 121 lb. (formula 1, panel 6)

11. Answer: \$.85 Computation:  $\frac{.43}{.51} = .84$  or .85 (formula 4, panel 6) (to nearest nickel)

12. Answer: 43% Computation:  $\frac{\$78.}{\$181.} = .43$  (formula 6, panel 6.1)

13. a. Answer: \$.405 Computation:  $\frac{.62 \times 7}{.67 \times 16} = \frac{4.34}{10.72} = .405$  (formula 2, panel 6)

b. Answer: \$.85 Computation:  $\frac{.404}{.47} = .859$  or .85 (to nearest nickel)

14. a. Answer: \$.146 Computation:  $\frac{.41 \times 2}{.35 \times 16} = \frac{.82}{5.60} = .15$  (formula 2, panel 6)

b. Answer: \$.219 Computation:  $\frac{.41 \times 3}{.35 \times 16} = \frac{1.23}{5.60} = .22$  (formula 2, panel 6)

15. Answer: \$.49 Computation:  $\frac{1.30 \times 6}{16} = \frac{7.80}{16} = .49$  (formula 3, panel 6)

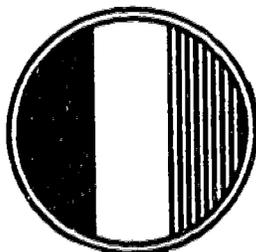
or panel 13

Panel 17.1-continued

16. a. 1 March Answer: 52.5% Computation:  $\frac{420.}{800.} = .53$   
 2 March Answer: 40.0% Computation:  $\frac{200.}{500.} = .40$   
 3 March Answer: 59% Computation:  $\frac{400.}{680.} = .59$
- b. Answer: .48% Computation:  $\frac{620.}{1300.} = .48$
- c. Answer: 52% Computation:  $\frac{1020.}{1980.} = .52$
17. Answer: \$.9844 Computation:  $\frac{1.26 \times 10}{.80 \text{ (panel 10)} \times 16} = \frac{12.60}{12.80} = .9844$  (panel 9)
18. Answer: 67% Computation:  $\frac{.40}{.60} = .666$  or .67 (formula 6, panel 6.1)

Panel 17.1-continued

# EXAM 371-1



*Correspondence Subcourse Examination:*

## CLUB RESTAURANT OPERATIONS

PART I



**U.S. ARMY QUARTERMASTER SCHOOL  
FORT LEE, VIRGINIA**



**SUPPLY TRAINING CENTER OF THE ARMY SCHOOL SYSTEM**

**JANUARY 1974**

Army-Fort Lee, Va.-518-74-300-D

EXAM 371-1

Credit Hours: 1

**EXAMINATION ASSIGNMENT**

<b>SUBJECT</b>	Club Restaurant Operations, Part I.
<b>STUDY ASSIGNMENT</b>	Review all programmed texts, PT 161, Sequences A and B.
<b>SCOPE</b>	Types of menus used in open mess operations; definition of portion control, reasons for portion control, and procedures for establishing portion sizes; purpose and advantages of standard recipes; preparation and use of food cost card; determination of portion selling price and percentage of yield for food items; cost controls, including purchasing, receiving, storing, issuing, producing, selling, and inventoring controls.
<b>OBJECTIVES</b>	To test student attainment of lesson objectives and to emphasize points that have been previously studied.

## EXAMINATION EXERCISES

REQUIREMENT. Exercises 1 through 3 are matching exercises. Column I is a list of three types of menus used in open mess operations. Column II is a list of menu characteristics. Select the characteristic from column II that matches the menu in column I and indicate your answer on the answer form. The choices in column II may be used once, more than once, or not at all.

- | Column I              | Column II   |
|-----------------------|---|
| 1. A la carte menu.   | a. The price of the meat entree is the cost of the entire meal, with a choice of courses.                             |
| 2. Table d'hote menu. | b. All courses are priced and charged for separately.   |
| 3. Selective menu.    | c. The fixed price of the entire meal includes prearranged courses, with no choice of courses.                        |
|                       | d. Some courses are portion controlled and priced high enough to recover the cost of the food less overhead expenses. |

REQUIREMENT. Exercises 4 through 33 are multiple choice. Each exercise has only one single-best answer. Indicate your answer on the answer form.

4. The size of portion for each food item served depends on
- a. the number of people to be serviced.
  - b. the nutritive value of the food item.
  - c. the type of menu and service offered.
  - d. the food items on sale at local markets.

5. Age, activity, sex, and preference of the group to be fed are control factors for determining
  - a. the anticipated profits.
  - b. the size of food portions.
  - c. the type of menu.
  - d. the type of service.
  
6. An accurate cost control system is made possible by using
  - a. fresh food daily.
  - b. prenumbered waiters' checks.
  - c. attractive and nutritive servings.
  - d. portion control.
  
7. Using standard guides, training workers, and using preportioning tools are the procedures you use to
  - a. reduce pilferage losses.
  - b. utilize leftovers from previous meals.
  - c. serve special menus.
  - d. establish standard portion sizes.
  
8. The five advantages of using standard recipes include one advantage that benefits both the manager and the cook. This advantage is
  - a. a provision for variations in quality.
  - b. saved time.
  - c. controlled food costs.
  - d. elimination of waste.

9. The most efficient way to fight waste and overproduction is to
- a. use the best principles of cooking.
  - b. reduce the size of portions.
  - c. prepare only high-yield foods.
  - d. substitute low-cost ingredients whenever possible.

SITUATION. Figure 1 is a partially completed recipe food cost card. Use the information given in figure 1 to complete exercises 10 through 18. Indicate your answers on the answer form.

### RECIPE FOOD COST CARD

RECIPE FOR Baked Macaroni and Cheese

DATE 29 May 19--

FOR 48 PORTIONS

Ingredients	Quantity	Unit	Unit Cost	Amount
Salt	1/2	cup	.05	10. \$ _____
Water, boiling	4	gal.	---	-----
Elbow macaroni	5	lb.	.16	11. \$ _____
American cheese, grated	5	lb.	.47	12. \$ _____
Prep. yellow mustard	1	cup	.05	13. \$ _____
Pepper	1	tsps.	.02	14. \$ _____
Milk, hot	1-1/4	qts.	.28	15. \$ _____
<b>COMBINED INGREDIENT COSTS</b>				<b>\$3.60</b>

YIELD		Portion Size	Portions Yielded	Portion Cost	Portion Selling Price	Food Cost %	Anticipated Gross Profit %
Quantity	Unit						
12 or 384	qts. oz.	1 cup or 8 oz.	48	16. \$ ____	18. \$ ____	33%	17. ____ %

Figure 1. Recipe Food Cost Card partially completed.

10. What is the total cost for salt?
- a. .003.
  - b. .035.
  - c. .030.
  - d. .350.
11. What is the total cost for macaroni?
- a. .400.
  - b. .600.
  - c. .800.
  - d. .900.
12. What is the total cost for cheese?
- a. 1.350.
  - b. 2.350.
  - c. 2.450.
  - d. 2.820.
13. What is the total cost for mustard?
- a. .005.
  - b. .050.
  - c. .500.
  - d. .550.

14. What is the total cost for pepper?
- a. .002.
  - b. .004.
  - c. .020.
  - d. .040.
15. What is the total cost for milk?
- a. .284.
  - b. .350.
  - c. .371.
  - d. .420.
16. The total cost for ingredients is \$3.60. What is the cost for each portion?
- a. .0075.
  - b. .008.
  - c. .0751.
  - d. .075.
17. What is the anticipated gross profit percentage?
- a. 33%.
  - b. 40%.
  - c. 57%.
  - d. 67%.

18. Your food cost percentage is 33%. What is your portion selling price?
- a. .220 or .22.
  - b. .227 or .23.
  - c. .247 or .25.
  - d. .445 or .45.
19. What is the portion selling price if your food cost percentage is 35% and your portion cost is \$.21?
- a. \$.47.
  - b. \$.56.
  - c. \$.60.
  - d. \$.63.
20. Which system controls the cost of food served to the customer so that he receives a reasonable amount of food at a fair price and so that the open mess can get a fair profit?
- a. The menu pricing system.
  - b. The portion control system.
  - c. The inventory control system.
  - d. The food cost control system.

21. Which of the following is not one of the three essential features of a good food cost control system?
- a. It must be controlled by personnel other than food service personnel.
  - b. It must provide enough information so that corrective measures may be taken when necessary.
  - c. It must eliminate variations in quality and quantity.
  - d. It must be practical and not interfere with kitchen working routine.
22. When purchasing food items, you should always look for
- a. nonseasonal items.
  - b. the lowest priced items.
  - c. those which meet your specifications.
  - d. storage characteristics of the items.
23. You can save on labor, storage space, and waste by purchasing
- a. substitute food items.
  - b. preportioned, frozen food.
  - c. seasonal fruits and vegetables.
  - d. small rather than large fresh fish.

24. Which of the following is-not included in the list of important purchasing guides for assisting you to control food costs?
- a. Visit the market.
  - b. Develop good relationship with dealers.
  - c. Set a schedule for visits by vendors.
  - d. Delay orders for subsistence items to prevent early receipt from vendors.
25. The amount left to serve after a food item is cooked or prepared is known as
- a. the percentage of loss.
  - b. the portion size.
  - c. the percentage of yield.
  - d. the loss factor.
26. As a club manager, you expect 120 people for lunch. You are going to serve a 4-ounce slice of turkey. You know that turkey has a 40% yield. How many pounds do you have to purchase?
- a. 48.
  - b. 50.
  - c. 65.
  - d. 75.

27. Orientation of personnel and checks for quantity, quality, and weight are two of the food cost controls used when
- issuing purchased food.
  - receiving purchased food.
  - storing purchased food.
  - inventorying purchased food.
28. Increased shelf life as well as decreased shrinkage and waste for most stored food items will result from
- proper control of humidity and temperature.
  - rodent and insect control.
  - stockage of bulk items only.
  - proper identification and security for storage areas.
29. Each of the following is a control measure used for the issue of food items EXCEPT
- only designated persons should issue food items.
  - food should be issued only at specified times.
  - nonperishable food items should be expedited.
  - food items should be issued only on one specified form.

30. Production controls are important for reducing waste and reducing costs. The three basic food production controls are planned preparation based on sales history,
- the number of portions prepared, and the ratio of portions prepared to portions sold.
  - the use of standard recipes, and the use of standard pack food items.
  - serving of standard portion sizes, and the use of standard recipes.
  - serving of standard portion sizes, and determination of food cost percentages.
31. A basic principle of inventory control in the open mess is that a perpetual inventory be kept on
- frozen or fresh meat items.
  - canned items.
  - expensive or critical items.
  - dairy items.
32. Illegible requisitioning, shrinkage, spoilage, theft, mathematical errors, and incorrect pricing are the usual causes for
- failure to realize a fair profit.
  - discrepancies between physical and closing book inventories.
  - purchasing losses.
  - failure to meet your established gross profit percentage.
33. The two primary systems used in sales control are
- controlling waiters' checks and determining minimum personnel requirements.
  - controlling waiters' checks and using preportioning equipment and tools.
  - controlling waiters' checks and keeping a sales history.
  - controlling waiters' checks and using standard guides.

**REQUIREMENT.** Exercises 34 through 37 are matching exercises. Column I is a list of duties performed by sales personnel. Column II lists individuals responsible for performing these duties. Select the person from column II that performs the duty listed in column I, and indicate your answer on the answer form. Choices in column II may be used once, more than once, or not at all.

Column I	Column II
34. Keeps a record of the number of each food item sold.	a. Food checker.
35. Records the sales price of each item sold from the sales check.	b. Food cashier.
	c. Waiter.
36. Verifies the sales price of each item from the sales check.	
37. Records the number of entire menu selections sold when table d'hote service is used.	

**REQUIREMENT.** Exercises 38 through 46 are true-false exercises. Indicate your answer on the answer form by using A for TRUE and B for FALSE.

- 38. Portion control means to serve a specified amount of food to the customer at a set price.
- 39. The necessary planning to get the right amount of food prepared on time with the least possible loss is known as food production planning.
- 40. The forecast and inventory control are two of the tools used for food production planning.
- 41. It is better to have leftovers than to take the chance of running short on menu items.

42. A recipe food cost card enables you to calculate sales based on a certain number of definite size portions.
43. The anticipated gross profit percentage is the amount of profit that must be made over and above the food cost percentage.
44. The primary types of food purchases for the open mess are direct daily and stockage.
45. The gross weight of canned goods is a main factor to consider when purchasing food.
46. The basic principle of storage is to rotate stored stock so that you use first the items stored for the longest period of time. This practice is known as "first in, first out."