

MARKING SCHEME
HOTEL MANAGEMENT
END OF SEMESTER EXAMINATION
SEPTEMBER - DECEMBER 2021/2022 SEMESTER
FOOD AND BEVERAGE COST CONTROL

DATE: DECEMBER 2021

TIME: 2 HOURS

INSTRUCTIONS: ATTEMPT QUESTION ONE AND ANY OTHER TWO QUESTIONS

QUESTION ONE

- a) The chef has presented to you for pricing, a new Easter table dhôte menu whose total ingredient cost per portion is KShs. 1,250. If your desired food cost is 28% and the applicable taxes are at 27%, determine the menu selling price. **(3 Marks)**

$$1250 \times 100 / 28 = 4464 \quad 4464 \times 0.27 = 1205.28 \quad 1205.28 + 4464 = 5669$$

Ans = 5,669/-

- b) There are many ways in which an unscrupulous person can successfully defraud an operation. List any **Three** receiving pitfalls. **(3 Marks)**

Packing merchandise in excessive moisture or wrapping in ice to make weighting more difficult and add more weight.

ii. Placing satisfactory merchandise on the top level that is visible, but inserting merchandise of in-proper quality underneath.

iii. Repairing produce and putting a lighter in the new crate while keeping the price the same as for the heavier original crates (it is wise to spot check the weight of crates and cartons).

iv. Sending incomplete shipments with the full bill and neglecting to send the remainder.

v. Supplying short weights.

- c) Outline the control process utilized by a food and beverage operation. **(4 Marks)**

1. Establish standards and standard procedures for operation.

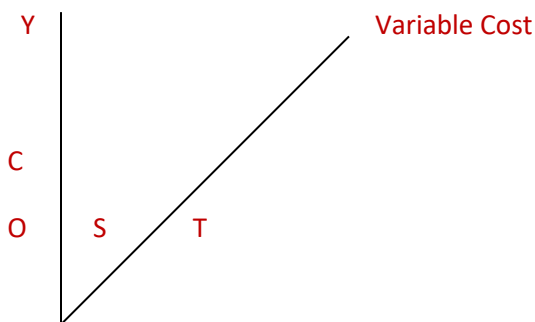
2. Train all individuals to follow established standards and standard procedures.

3. Monitor performance and compare actual performance with established standards.

4. Take appropriate action to correct derivations from standards

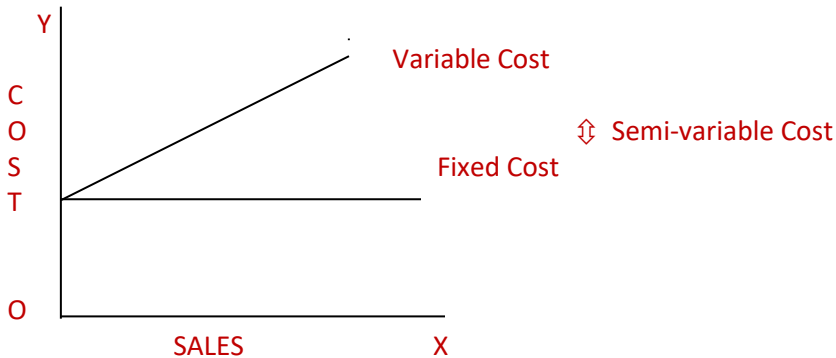
- d) Differentiate between variable cost and semi-variable cost providing examples of each and use diagrams to illustrate. **(4 Marks)**

Variable Cost - Costs, which change in direct proportion to the sales, they increase with the increase in sales, e.g., food cost, beverage cost, etc.



O SALES X

Semi-variable Cost - These costs change with the change in sales but not in direct proportion, e.g., fuel, electricity, telephone expenses, etc.



- e) In order to make meaningful decisions about the future, a manager must look ahead. One way to look ahead is to prepare budgets or forecasts. Briefly explain the term 'budgeting' and state any **Two** reasons that highlight the main purpose of budgeting. **(3 Marks)**

Budgeting is part of the planning process. It can involve decisions concerning day-to-day management of an operation or, on the other hand, involve plans for as far ahead five years.

Budgeting is used by most firms to aid in controlling costs and to ensure that costs are kept in line with forecast revenues. A forecast may be very simple. For a restaurant owner/ operator, a budget

may be no more than looking ahead to tomorrow, estimating how many customers will eat in the restaurant, and purchasing food and supplies to accommodate this need.

Budgets are not always expressed in monetary terms. They could involve numbers of customers to be served, number of rooms to be occupied, number of employees required or some other unit rather than money.

The main purpose of budgeting could be summarized as follows:

- i. To provide organized estimates of future revenues and expenses, manpower requirements or equipment needs with estimate broken down by time period and / or department.
- ii. To provide a coordinated management policy both short and long-term, expressed primarily in accounting terms.
- iii. To provide a method of control by comparing actual results with budgeted plans, and to take corrective action if necessary.

- f) Explain the following types of costs providing examples from the hospitality industry: **(4 Marks)**

- i. Sunk cost
- ii. Opportunity cost
- iii. Prime cost

iv. Standard cost

- a. Sunk Cost – is a cost that has been incurred and cannot be reversed. Also referred to as "stranded cost." A worn-out piece of equipment bought several years ago is a sunk cost because the cost of buying it cannot be reversed.
 - b. Opportunity Cost - the cost of not doing something or the profit lost
 - c. Prime Costs - is a term used in the food and beverage industry to refer to the cost of materials and labor. Prime Cost = Food Cost + Beverage Cost + Labor Cost
 - d. Standard Cost - a standard cost is what the cost should be for a given volume or level of revenue. For example, a standard cost can be developed by costing the recipe for a given menu item.
- f) The Pearl Restaurant purchases case-lots of hamburger bags for all its drive-in restaurants in the city. Normal sales of hamburgers would require 1000 cases of bags per year. The carrying cost of the inventory is 15 percent of inventory value. The purchase cost per case or unit is 12 KShs. and the fixed cost of placing an order is 8 KShs. Calculate the economic order quantity. **(4 Marks)**

$$EOQ = \sqrt{(2FS/CP)}$$

F = Fixed cost of placing an order

S = Annual sales or usage in units

C = Carrying costs (insurance, interest, storage) as a percentage of the amount of the inventory

P = Purchase price per unit

Ans = 94 cases

- g) A restaurant named Food Garden, has a set menu at a fixed price of 1000 Kshs. per customer/cover. In a particular month, the meal sales are between 6,000 and 9,000 Units. The Variable costs is 1,200,000 KShs. and fixed cost is 1,600,000Kshs. If the restaurant sells 8,500 units, calculate: **(5 Marks)**

i. Contribution margin

ii. Contribution margin ratio

iii. Net profit

Contribution margin = Sales revenue – Variable costs (8500*1000)-1,200,000 = 7,300,000

Contribution margin ratio = Contribution Margin / Sales * 100 = 85%

Net profit = Total contribution – Expenses = 5,700,000

QUESTION TWO

- h) The operational phase of the food and beverage cycle has **five** main stages of control. Outline these stages and state **Two** measures of control that should be taken at each stage. **(8 Marks)**

Purchasing – selection of suppliers, contracts, EOQ etc

Receiving – inspection of quality and quantity

Storing and Issuing - Storage equipment, records, quantity

Preparing – food waste, portioning

Selling – selling prices, acceptable product

- i) Food and beverage control tends to be more difficult than the control of materials in other industries. Discuss the problems in Food & Beverage Control. **(7 Marks)**

Perishability of the product: Food, whether raw or cooked, is a perishable commodity and has a limited life. The caterer, therefore, has to ensure that she buys produce in the correct quality and quantity in relation to estimated demand, and that it is correctly stored and processed.

Business Volume Unpredictability: Sales instability is typical of most catering establishments. There is often a change in the volume of business from day to day, and in many establishments from hour to hour. This causes basic problems with regard to the quantities of commodities to be purchased and prepared as well as to the staffing required.

Menu mix unpredictability: In order to be competitive and satisfy a particular market, caterers must often offer a wide choice of menu items to the customers. Predicting menu items preference on top of customer volume can be challenge. Effective forecasting as part of the total food and beverage control system is therefore necessary.

Food and beverage operation short cycle: The speed at which catering operations take place, relative to many other industries, allows little time for many control tasks. It is not uncommon that items ordered one day are received, processed and sold the same or next day. It is for this reason that in larger catering establishments cost reporting is done daily or at least weekly basis. Perishable items cannot be brought very much in advance of their need; and the problem of availability at times of produce relative to the price that can be afforded in relation to the selling price.

Departmentalization: Many food and beverage operations have several production and service departments, offering different products and operating under different policies. It is, therefore, necessary to be able to produce separate trading results for each of the production and selling activities.

- c) State **Five** controllable factors that may affect the profitability of any food and beverage business. **(5 Marks)**

The student should highlight points that indicate poor control within the food and beverage cycle eg high cost of labour from overstaffing, poor receiving controls, food waste etc

QUESTION THREE

- a) Determine the storage process of beverages in a cellar/bar and specify the ideal storage temperatures for the following: **(7 Marks)**
- i.) Red wine
 - ii.) Champagne
 - iii.) Bottled beer

13- 16, 10 and 13 degrees respectively

Storage process in cellar/bar consists of four main parts which include placing the products in storage, maintaining their quality, safety and security and determining the stock's value.

Storage areas must be kept clean, tidy and clear of any litter in the passage ways cellar/Bar adopt a F.I.F.O. (First in First out) system for rotating your stocks, especially perishable foods or beverages with a short shelf life.

- b) The control of beverage sales is based on various calculations which have to be made to establish the potential sales values. Explain **Three** factors to consider during these calculations. **(6 Marks)**

The sale of spirits by the bottle

The sale of spirits by the glass

The sale of soft drink and mineral water

The sale of cocktails

- c) State and explain any **Four** sources of supply that may be used when purchasing beverages. **(7 Marks)**

(1) Cash and Carry and Retail Outlets: These are many beverages sales units in major towns where purchasing by cash and carry method is prevalent. These establishments offer a limited range of wines, spirits and beers.

(2) Suspended Dept. /Business: The leading beverage companies/breweries invoice the hotel for its opening cellar stock. The payment is made on subsequent invoice. The first invoice is „suspended“ until the account is closed.

(3) Cellar Stocks and Suspended Debt Accounts: In this method the supplier stocks the cellar free of charges as per its monthly par stock requirements. All opening stock levels are recorded in a cellar ledger. At the end of every month stocktaking is made and all items issued from the cellar are charged to the hotel.

(4) Wholesalers: There are many wholesalers who offers a very wide range of products, a regular delivery service and post-sale service. Many wholesalers offer free printing of wine lists and promotion material for your bar. Large companies offer continuity, competitive prices and regular deliveries.

(5) Wine Shippers: There are some firms who buy beverage in the company of origin and supervise the shipment of it to its destination. They supervised in a particular region and offer a limited in a particular region and offer a limited range of high quality beverages as well as specialist advice.

6. Direct Buying: This can be done by visiting the wine-growing regions and tasting the wine at vineyards. The various wine grower's consortia and the suppliers hold annual or bi-annual testing where owners and managers can taste the wine and make arrangement of buy at ex-cellar price. Shipping costs, excise duty are paid separately to the supplier.

(7) Auctions: Auctions are useful for buying large quantities or conversely for buying extremely small parcels of fine wine or spirits. They are suitable both for large hotel companies and bars which was to include a small number of fine wines on their lists.

QUESTION FOUR

a) Explain **Eight** factors responsible for food loss in the production and service cycle.

(8 Marks)

(2) Inefficient Menu Planning:

- (a) Menus are planned without the use of standard yield recipes.
- (b) The menu planners own tests rather than those of the customers are projected on the menus which land up with dishes unsold.
- (c) Portion number for each dish on the menu are improperly forecasted. They can lead to one dish being completely sold out in the middle of service time while others remain unsold.
- (d) There is an imbalance of high and low priced dishes on the menu, food cost increase lowering the margin of profit.
- (e) There is little or no flexibility in menu plans to incorporate left over foods, food costs increase unnecessarily.
- (f) An item is used for a dish for which items not meant originally it can push up food costs. For example, an expensive cut of meat used for mince; or a dessert (table) fruit used in fruit salads or food cooked desserts.
- (g) Dishes are placed on the menu only because they can be easily prepared by the staff, without attention to quality or customer choice and acceptability.

(3) Kitchen Production:

- (a) Poor peeling or hemming, affect the number of portions obtained for a unit purchase of food.
- (b) The Suitability of cutting and chopping vegetables or meat for each dish will affect the volume of the prepared dish and hence its selling price.
- (c) Using improper cooking methods leading to excessive weight losses and reduced selling portions.
- (d) The art of garnishing completed dish to make them attractive to the customer means receiving cost quicker through more sales. A very tasting dish presented in a sloppy manner can put off customer quite easily.
- (e) Picking of food or excessive indulgence on the pretext of tasting it, before dishing out for service can be a major cause for increasing food costs. It all the staff handling food costs. If all the staff handling food standard picking every testable ingredient at all stages of production, it is not hard to imagine the effect on the customer and the cash box.

(4) Service of Prepared Food: Food cost is increased in this area through:-

- (a) Improper availability of portioning equipment.
- (b) Lack of training in portioning correctly at the service point.
- (c) Insufficient temperature control in holding equipment leading to unnecessary losses in portions through the evaporation of moisture and through shrinkage.
- (d) Picking of foods and pilferage when service is slack.
- (e) Method of service also affects the portions on the customer's place, and also the loss in

spoilage while serving.

- b) Outline **Four** advantages of a standard recipe and state **Three** ways customer fraud may be prevented. **(7 Marks)**

A Standard recipe, regardless of who is preparing the item, or to whom it would be served, has the same appearance, cost and taste. The consistency in operations provided by the standard recipe is the central point of control and marketing systems.

The Managers of the establishments should know that the standard recipe will yield a specific number of standard sized portions. It is less likely that too many or too few items will be prepared.

- Since standard recipes indicate the desired equipment and required production time, managers can schedule employees for food production, the number of batches the dish is required to be prepared by them for a particular number of dishes, and the equipment necessary to prepare them.
- Minimum supervision is required. The employees or chefs only need to follow the recipe as mentioned. of course, managers should routinely evaluate the quality of items produced and ensure that standard recipes are accurately followed.
- If the chef is unwell does not show up, a product can still be produced in the same way if a standard recipe is available; however, inexperienced employees will be less efficient and might make errors.

Responses should suggest:

Monitor - Numbers never lie. Find a way to track transactional data from your Point of Sale (POS) and Back-of-House (BOH) systems. Through ancient spreadsheet methods or with an external system that integrates data from all sources, you need to collect and monitor your data.

Detect - With your data, pinpoint odd situations. Let's look at an employee that has a high percentage of voids on reopen checks, or excessive chargebacks. This information should be flagged because it's potentially problematic.

Route - Once you have detected a possible incident, depending upon your position, whether it's a restaurant manager, district or regional manager, inform the appropriate management.

Resolve - Allow management to do their job. They must gauge the severity of the issue and resolve the problem how they see fit. For example, after management confronts the situation there are factors to consider. Did they implement disciplinary action, termination, employee training?

Measure - Track the incident for prevention and reference. Let's say an issue arose and it was dealt with. Can we set specific metrics to prevent a similar event? Such as setting allowable guidelines for discounts, thresholds for chargebacks, etc.

- c) Briefly explain how the break even analysis may be used in decision making and list **Three** actions that could be taken to reduce the cost of labour in a food and beverage business. **(5 Marks)**

Cost Volume profit analysis (CVP) is a technique which is used to examine the relationship between the three elements of financial performance, mainly the sales and the cost associated with the volume and the profit. This helps us to analyze and understand how costs respond to various changes in activity and the planning and decision making process. CVP helps to predict the sales in monetary value and the volume required to achieve the desired profit based profit based on the known costs. Its main focus is on interaction among the following elements:-

- Price of Products
- Total Fixed Costs
- Volume or level of activity
- Mix of product sold
- Per unit variable costs

For planning and decision-making, it is important to look at the relationship among profit, sales, and costs and how it changes in different situations. A manager of an outlet may question which may directly have an impact on the profit.

Reducing L.C

1. Review Levels of Compensation
2. Reduce Employee Turnover
3. Cross-Train Employees
4. Trade Time Off for Payroll Expense
5. Share Jobs Between Employees
6. Convert Fixed Salaries and Wages Into Commissions or Fees
7. Reduce Perquisites (“Perqs”)
8. Eliminate Redundancy Between Departments
9. Automate and Outsource Non-Critical Tasks
10. Work Overtime Before Hiring New Employees
11. Consult an Attorney Before Reducing Your Workforce

QUESTION FIVE

- a) Discuss the role or use of technology in housekeeping to ensure cost control. **(8 Marks)**

1. Rooms Management
2. Forecasting GRA Requirement
3. Housekeeping History & GRA Performance
4. Stock Control
5. Housekeeping Records
6. Work Methods
7. Files
8. Word-Processing

9. Planning System

10. Energy Saving etc

- b) A double room had an average room rate of Kshs. 8,800 the first year, Kshs. 8,500 in Year 2, Kshs. 9,200 in Year 3, and Kshs. 9,600 in Year 4. Establish a trend index using Year 1 as the base year. **(4 Marks)**

Year	Room rate	Trend Index
1	8,800	100
2	8,500	96.6
3	9,200	104.5
4	9,600	109.1

- c) Results from the analysis of sales of menu items may be categorized into four. Discuss. **(8 Marks)**

Sales of menu items are analyzed to put menu items in four categories:

Popular and profitable

Popular but not profitable

Not popular but profitable

Neither popular nor profitable