

FORM FOUR CSSC EXAMINATION
FOOD AND HUMAN NUTRITION 01.

MARKING SCHEME SET 01

SECTION A (15 marks)

1.

i	ii	iii	iv	v	vi	vii	viii	ix	x
C	D	C	B	D	A	A	D	A	A

1 mark @ 10 marks

2.

LUT A	i	ii	iii	iv	v	vi
LUT B	G	H	F	D	A	C

1 mark @ 6 marks

SECTION B (54 marks)

3. (a) i Light test

- This method is done by holding an egg before light. The light penetrates the egg and makes it possible to observe the inside of the egg.

ii Water test

- This method uses plain water to test the egg's freshness. An egg is placed in a glass of water. If the egg sinks to the bottom, it is quite fresh.

iii Shake test

- This method requires shaking the egg gently near the ear and listening to the sound produced.

iv Egg white and egg yolk test

- This method is useful for recipes that require breaking the egg before cooking it. Cracks the egg into a plate and examine the consistency of the egg white.

i It is used as a binding agent

- Eggs can be used to hold dry ingredients such as breadcrumbs for making dishes such as kababs.

ii It is used as a thickening agent;

- Eggs can be added to soups, sauces, gravy and stews to thicken them due to the protein coagulation when heat is applied to eggs.

iii It is used as a coating agent

- Beaten eggs form a protective layer that prevents fried foods from being damaged by the high heat effect

iv It is used as a glazing agent

- A hard-boiled egg can be sliced and used to garnish foods such as salad, boiled macaroni and rice.

v It is used as a garnishing agent

- A hard-boiled egg can be sliced and used to garnish foods such as salad, boiled macaroni and rice.

4 marks @ 9 marks

4. @ Causes of Curdling

- i Adding eggs too quickly without beating well after each addition
- ii Using cold eggs with warm creamed fat and sugar, causing the mixture to separate
- iii Overloading the mixture with liquid or having an incorrect proportion of ingredients

• Remedies for Curdling

- i Use eggs at room temperature before mixing
- ii Add eggs gradually, beating thoroughly after each addition
- iii Add a little sifted flour to the curdled mixture and beat gently to restore consistency

5. Reasons for the Swiss roll to have a heavy and dense texture.

- i Insufficient whisking of eggs and sugar, resulting in poor aeration
- ii Overmixing after adding flour, causing loss of trapped air
- iii Baking at too low a temperature, preventing proper rising

1 mark @ 9 marks

5. @ Season of the year

- The availability of certain foods depends on the season.

(b) Availability of Ingredients

- The caterer must ensure that all the ingredients for the dishes on the menu are obtained

(c) Tasty and appealing

- The dishes to be prepared must be tasty and appealing for the dishes on the menu are obtained

(d) Time availability; During menu planning, one should consider the time needed to prepare a meal.

(e) Food cost; The ingredients for the food to be prepared ~~consider~~ the time needed to ~~pre~~ should be within the budget of the caterer

(f) The purchasing power of the customer; Consider the customer's ability to afford the food. In fact, customer's purchasing power will determine the food price.

(g) Energy and fuel; The caterer should consider the availability of sources of fuel to prepare the food.

(b) Groups of menu

i) Cyclic menu

- A Cyclic menu changes every day for a certain period such as one month or three months

ii) Static menu

- A Static menu does not change very often

1 mark @ 9 marks

6. @ Kitchen hygiene rules
- i Clean the kitchen daily and after every use to prevent a build-up of dirt.
 - ii Wash all utensils immediately after use and dry them properly.
 - iii Clean all places including working surface with soap and water whenever they become dirty.
 - iv The floor must be swept and mopped often as the kitchen gets greasy and dirty.
 - v All waste to be thrown into the bin must be wrapped.
 - vi Kitchen cloth must be washed often with warm water.

6b Wall kitchen plan

- This is a type of a kitchen plan in which all kitchen units are placed along one wall because it reduces efficiency of working in the kitchen as it encourages a lot of movement.

- 6c i Washing your hands before and after the preparation of foods
- ii Cover your mouth or nose when sneezing or coughing to avoid food contamination
- 1 mark @ 9 marks

7. @ i Marinating it with oil, seasoning and acidic condiments such as lemon juice or vinegar

- ii By using heat method of cooking like Steaming and Stewing which can easily convert collagen to gelatin
- iii By mincing or cutting meat into small pieces to shorten the muscle fibres
- iv By mechanically pounding or beating meat with meat hammer
- v By tenderizing the meat with knives or skewers before cooking to break the meat fibres
- vi By adding small amount of crushed paw-paw leaves or Unripe paw-paw fruit to the meat

~~XXXX~~
b) i Lamb has more connective tissues than poultry, so it takes longer to become tender.

ii Lamb muscle fibers are denser and tougher, requiring longer cooking times

iii Poultry meat is naturally more tender, especially chicken, because it contains less connective tissue

iv Lamb often contains more fat and bone, which makes cutting and preparation more difficult

v Different cuts of lamb require different cooking methods, while poultry is generally easier and quicker to cook.

c) i Unsaturated fat

- Many fish contains high levels of unsaturated fat, which oxidize (become rancid) faster than the fat in red meat.

ii High moisture content

- Fish contains more water than most meats, creating a favorable environment for bacteria to grow.

iii Natural enzymes

- Fish has enzymes that continue breaking down the flesh after the fish dies, causing rapid deterioration

1 mark @ 9 marks

8. @ i Creaming method

- This method involves beating fat (butter or margarine) and sugar together until the mixture is light and fluffy.

ii Whisking method

- In this method, eggs and sugar are whisked together until thick and fluffy.

iii Rubbing-in method

- The fat is rubbed into the flour using the fingertips until the mixture resembles breadcrumbs.

iv Melting method

- Fat, sugar, golden syrup and treacle or honey are melted together but not allowed to boil before being added to the flour.

b Ways of decorating a cake.

i Buttercream icing

- Spread or pipe buttercream over the cake.
- Use piping bags and nozzles to create flowers.

ii Royal icing

- This type of icing is prepared using icing sugar, egg white and lemon juice. The firm icing is used to cover cakes.

iii Glace icing: This type of icing can be quickly made by mixing icing sugar, water, flavouring and food colour.

iv Chocolate icing: This type of icing is made by icing sugar, milk or water, melted chocolate and butter.

✓ Fondant icing: This is also used in cake decoration. It is made by mixing glucose syrup, gelatine, Vanilla essence, water and Sodium Carboxyl methyl Cellulose (CMC).

- c) i) Iced in hole - Baking methods
ii) Rollouts - Baking methods

4 marks @ 9 marks

SECTION C (30 marks)

9. Left over: Refers to food that has been cooked previously, cooled or stored and then heated again before being eaten or served.

- i Rules to Observe when preparing reheated food
- ii Served immediately after reheating
- iii Do not add fresh food to already cooked leftovers
- iv Avoid mixing old and fresh food
- v Keep the food covered while reheating
- vi Cover food to prevent contamination
- vii Reheat food within a short time
- viii Check food before reheating
- ix Keep leftover food in a refrigerator or in a cool place.

02 marks @ = 12 marks, 01 mark = Intro, 02 marks = Conclusion

10. Bread: Is made from a mixture of flour, yeast, salt, sugar, liquid and fat.

Procedures for making bread:

- i Sieving: Mix yeast, flour and other powdered dry ingredients together
- ii Rubbing - in fat into the flour; Rub-in fat into the flour thoroughly to ensure even distribution
- iii Mixing and kneading: During mixing, slowly add warm liquid to the flour while stirring to ensure proper blending of the ingredients

xv Rising; This involves putting the dough in a warm condition to allow its steady fermentation reaction to continue.

xvi Re-kneading; This is done to break down the large air bubble formed during rising.

xvii Shaping; This involves cutting the dough and shaping it following the loaf to be used or baking tray for any desirable design of bread.

02 marks @ = 12 marks, 01 marks = Intro, 2 marks = Conclusion

11. @ Vegetarian; Are people who do not eat animal flesh, poultry or fish. However, some of them eat animal products such as milk and eggs.

Ⓛacto - Vegetarian

- Are those people who do not eat meat but they eat animal products such as milk, eggs, cheese, butter, cream, yoghurt, ghee.

Ⓛivestock - Vegetarian

- Are those people who do not eat a diet with meat or animal products eg. meat, cheese, eggs, milk also they refuse to use products which involve the use of animals, oil, fats, such as soap, cosmetics and polish.

c) Reasons for being a Vegetarian

i Religious beliefs

ii Dietary reason

iii Dislike of animal flesh

iv Belief that a Vegetarian diet is more health than Carnivorous diet

v Objection to the slaughter of animals because it is considered to be cruel

02 marks @ = 12 marks, 04 marks

Intro, 2 marks = Conclusion