



<b>FACULTY</b>	SCHOOL OF ALLIED HEALTH SCIENCES		
<b>DEPARTMENT</b>	PHYSICAL AND SPORT SCIENCES		
<b>MODULE</b>	PRINCIPLES OF FOOD PREPARATION		
<b>MODULE CODE</b>	MHE 3631		
<b>DATE</b>	JUNE 2024		
<b>DURATION</b>	3 HOURS	<b>MARKS</b>	100

## 2<sup>nd</sup> OPPORTUNITY EXAMINATIONS

**Examiner:** Ms M. //Naobes

**Moderator:**

### INSTRUCTIONS TO CANDIDATE:

1. This question paper consists of **four (4)** pages including the cover page.
2. Answer **ALL** the questions.
3. Number your questions correctly.
4. Read the questions carefully before you answer.
5. Please note that cheating in the examination will result in a failure.

**UNIVERSITY OF NAMIBIA**

## EXAMINATION QUESTION PAPER

### SECTION A

#### Question 1:

**Study the definitions and/or descriptions of concepts used in Principles of Food Preparation and state the term defined/described. Take note that only “one term” is required; NOT a sentence or further explanation. The terms consist of a maximum of two words.**

- 1.1. The spoilage of a fat, caused by oxidation, in such a way that it becomes undesirable (and usually unsafe) for human consumption.
- 1.2. White flecks and streaks of fat within the lean sections of meat. This is simply visible fat present in the inter-fascicular spaces of a muscle which contribute to the tenderness of meat when cooked or grilled.
- 1.3. The expulsion (or weeping) of liquid from a gel. It is sometimes a desired result, as in gel filtration. Often it is undesired, such as when the liquid seeps out of beaten egg white foam.
- 1.4. The chemical process which occurs in fruits and vegetables by the enzyme polyphenoloxidase, which results in brown pigments.
- 1.5. Setting an oven or broiler to the desired cooking temperature in advance of using it so that it has time to reach the desired temperature before putting the food in to be cooked.
- 1.6. A plant or edible seed that forms/contained in a pod.
- 1.7. The act of tying poultry with a string, which may be woven through the bird parts so that stuffing does not fall or leak out of the cavity.
- 1.8. The process of sterilisation that refers to the complete elimination of all microorganisms especially in milk. The treatment involves heating the product to over 135 -140 °C for a period of 4-5 seconds.
- 1.9. A cooking utensil with a broad, flat often flexible blade; with holes or other openings used for turning or serving food.
- 1.10. A long, slow method of cooking where food is cut into pieces and cooked in the minimum amount of liquid, water, stock or sauce.
- 1.11. A smooth paste, made from flour fried in fat that is added to sauces, soups or gravy to make them thick, smooth and rich.
- 1.12. A colloid of two or more immiscible liquids where one liquid contains a dispersion of the other liquids.
- 1.13. To break up the fat globules in milk so that they are evenly distributed – to make or become similar in size.
- 1.14. The name given to the connective tissue that group muscle fibres into bundles (of fibres).

**QUESTION 2**

2.1. Give **ONE** term for each of the following descriptions of **equipment** used in preparing dishes. Write only the term next to the question numbers (e.g. 2.1 (a) in the answer booklet.

- (a) A utensil used to roll out pie, cookie and/or bread dough.
- (b) A bowl with holes to allow liquids to pass through; often used to drain cooking liquid from pasta or excess liquid in which food is cooked.
- (c) flat piece of wood used for chopping, slicing, and dicing vegetables, fruit, and other food.
- (d) A metal utensil with coarse sides used for shredding vegetables, cheese and other food into fine chunks.
- (e) used to measure various smaller quantities of liquids, powders, and other ingredients. It can be made of a variety of materials. (5)

2.2. Give **ONE** term for each of the following descriptions of cookery terms used in preparing dishes. Write only the term next to the question numbers [e.g. 2.2 (a) to (e)] in the answer booklet.

- (a) to cook in a liquid that has reached its highest possible temperature of 100°C.
- (b) to place vegetables or fruits into boiling water for a very short period (usually 30 seconds or less) - this is done either to soften them, loosen their skin, or preserve their colour.
- (c) to combine two ingredients which normally would not be mixed by agitating them with a whisk, blender, or some other agitation method. An example would be oil and vinegar to form a salad dressing.
- (d) beating food with a whisk or mixer to incorporate air and build volume.
- (e) To cook foods gently by submerging them in barely simmering (not boiling) water. Vegetables, seafood, and chicken are foods that often require this method of cooking. (5)

[Question 2: 10 marks]

**SECTION B**

**QUESTION 3:**

3.1. Magano is hosting a few colleagues for dinner tonight. She wishes to serve a creamy fish stew for one of her colleagues who does not eat red meat. When preparing the creamy fish stew, Magano first coats and then fries the fish lightly before she mixes it with the rest of the ingredients. Describe, with the application of the relevant principles, **four** reasons why it is necessary to coat fish before frying. (12)

3.2. Heat treatment is one of the most common processes in food preparation which aims to improve shelf life, palatability and digestibility of food. In addition to beneficial effects, heat treatment results in alteration in various physical and physicochemical characteristics of food. By means of short, yet informative notes, describe the effect that heat has on the following food items.

- (a) Hake fillet
- (b) Fried egg
- (c) Grilled T-bone steak
- (d) Yellow rice
- (e) Toasted white bread
- (f) Pasteurised milk

(6 X 4 = 24)

[Question 3: 36 marks]

#### **Question 4**

During the process of preparation, especially when peeled or cut, there are some fruits and vegetables that tend to turn brown. Discuss what the causes are of this discolouration and suggest practical ways how this browning can be slowed down. (10)

#### **Question 5**

Eggs are frequently used in food preparation and are often combined with other ingredients in the preparation of a varied number of dishes for their valuable contributions. State three dishes of your choice and discuss the role and/or function of eggs in each of the dishes mentioned. **Apply the appropriate (correct) principles in your response.** (5 marks per dish = 15)

#### **Question 6**

Meat quality is normally defined by the compositional quality (lean-to-fat ratio) and the palatability factors such as visual appearance, smell, firmness, juiciness, tenderness, and flavour. There are a number of factors that determine the quality of meat. Identify and describe **three (3)** pre-mortal factors that determine the quality characteristics of meat.

(5 marks per factor = 15)

**End of Examination Paper**

**Paper Total: 100**