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FINAL
Examination Paper

(COVER PAGE)

Session : April 2018

Programme : Diploma In Culinary Arts (DCAN)

Course : DCA2110 : Bread and Bread Making

Date of Examination : July 28, 2018 (Saturday)

Time : 5:00 pm – 7:00 pm Reading Time: Nil

Duration : 2 Hours

Special Instructions :

Section A: FIFTY (50) Multiple Choice questions. Answer ALL the questions.

Section B : Short answer questions. Answer ALL the questions.

IMPORTANT NOTE : THIS PAPER SHOULD NOT BE TAKEN OUT OF THE EXAMINATION HALL

Materials permitted :

Nil

Materials provided :

OMR Sheets

Examiner (s) : Chef Eddie, Tan Kean Buan, Chef Syamsul Idham Musa & Ahmad Zauhudi

Moderator : En Muhd Shah Kamal

This paper consists of 14 printed pages, including the cover page.

DIPLOMA IN CULINARY ARTS PROGRAMME (DCAN)
DCA2110: BREAD AND BREAD MAKING
FINAL EXAMINATION: APRIL 2018 SESSION

SECTION A: (50 marks)

Instructions: This section consists of **FIFTY (50)** multiple choice questions.

Answer **ALL** questions.

ONE (1) mark per question.

1. The baker's term for weighing out ingredients is
 - A. scaling.
 - B. staling.
 - C. sieving.
 - D. scoring.

2. The following ingredients may be measured by volume **EXCEPT:**
 - A. sugar, salt and whole eggs.
 - B. almond flakes, margarine and raisin.
 - C. almond paste, milk and sugar.
 - D. water, milk and eggs.

3. _____ express the amount of each ingredient used as a percentage of the amount of flour used.
 - A. Baking principles
 - B. Baking percentages
 - C. Bakers' percentages
 - D. Bakers' principles

4. All ingredients must be weighed and accuracy of measurement is critical in the bakeshop. Measurement is by weight rather than by _____ and it is much more accurate.
 - A. height
 - B. volume
 - C. kilogram
 - D. percentage

5. Milled from wheat kernels after the bran and the germ are removed, contains 63% to 73% starch and 7% to 15% protein. The remainder is moisture, fat, sugar, minerals and this is the source of protein called gluten. This most likely is the description for _____.
- A. whole wheat flour
 - B. white wheat flour
 - C. corn flour
 - D. rye flour
6. Grinding the entire wheat kernel, including the bran and germ will produce _____.
- A. whole wheat flour
 - B. Hong Kong flour
 - C. white flour
 - D. wheat starch
7. Does not develop much gluten and normally breads made with it are heavy unless some hard wheat flour is added.
- A. Whole wheat flour.
 - B. Wheat starch.
 - C. Rice flour
 - D. Soft flour
8. The following flour products are not commonly used in bread making **EXCEPT**:
- A. cornstarch
 - B. rice flour
 - C. potato starch
 - D. potato flour
9. Yeast is necessary for _____ in bread making.
- A. flavor and volume
 - B. sweetness and color
 - C. crispiness and moistness
 - D. protein enhancement

10. _____ is precooked or pre-gelatinized; they thicken cold liquids without further cooking.
- A. Cornstarch
 - B. Instant starches
 - C. Waxy maize
 - D. Potatoes
11. Which of the following would commonly contain at least 80% milk fat?
- A. Emulsified shortening
 - B. Butter
 - C. Margarine
 - D. Non-dairy spread
12. Which of the following would produce the flakiest laminated dough pastries?
- A. Salted butter
 - B. Low fat margarine
 - C. Pure shortening
 - D. Medium fat margarine
13. This is also another type of shortening but it is especially formulated for laminated dough with better flavor and aroma.
- A. Clarified shortening
 - B. Regular shortening
 - C. Ghee
 - D. Pastry margarine
14. This fat will become hard and brittle when cold, soft at room temperature and melts easily.
- A. Emulsified shortening
 - B. Unsalted butter
 - C. Regular shortening
 - D. Pastry margarine

15. The following fats are suited for high temperature baking **EXCEPT**:
- A. emulsified shortening
 - B. salad oil
 - C. regular shortening
 - D. pastry margarine
16. Which of the following ingredient slows down fermentation?
- A. Salt
 - B. Bacteria
 - C. Butter
 - D. Water
17. When water turns to _____, it expands to 1,600 times its original volume. This is an important factor responsible for large irregular holes in ciabattas.
- A. crystals
 - B. steam
 - C. neuron charges
 - D. energy
18. Soft flour is sometimes added to bread dough simply for _____.
- A. lessening its elasticity
 - B. lessening its extensibility
 - C. added volume
 - D. added crumb development
19. *Biga* is the name used for _____.
- A. a type of bread
 - B. a type of yeast
 - C. a preferment
 - D. a dough emulsifier

20. The term _____ is applied to old bread with dry crumbs.
- A. dehydration
 - B. denaturing
 - C. staling
 - D. fermenting
21. The following products are made from laminated yeasted dough **EXCEPT**:
- A. Pain au Chocolate
 - B. Pan de Sal
 - C. Danish Pastries
 - D. Croissants
22. Diastatic malt is commonly added to bread dough to improve _____.
- A. texture and color
 - B. taste and sweetness
 - C. yeast multiplication
 - D. tenderness of bread
23. Used primarily in yeast breads and serves as food for the yeast. This adds flavor and crust color to the breads.
- A. Honey
 - B. Extra virgin olive oil
 - C. Malt vinegar
 - D. Liquid glucose
24. Which of the following is the sweetest in taste?
- A. Honey
 - B. Malt syrup
 - C. Corn syrup
 - D. Molasses

25. Which of the following yeast product may not need to be premixed with water before adding to the rest of the ingredients in bread dough?

- A. Active dry yeast
- B. Fresh yeast
- C. Wild yeast
- D. Instant dry yeast

26.

- Top and bottom temperature is separately controlled.
- Door works like a flap which opens and closes vertically.
- May include stone base.
- Does not include a convection fan.
- May or may not include a steam injector.
- Interior is often deep and wide.

These characteristics of the equipment above most likely refers to a:

- A. flap oven
- B. deck oven
- C. revolving oven
- D. naturally heated oven

27.

- Contain fans that circulate the air and distribute the heat rapidly throughout the interior.
- Foods cook more quickly at lower temperatures due to the forced air.
- Shelves can be placed closer together than in conventional ovens without blocking the heat flow.

These equipment characteristics most likely describes a:

- A. convection oven.
- B. deck oven.
- C. convention oven.
- D. combination oven.

28.

- Used for measuring ingredients as well as for portioning products for service.
- Spring-operated and usually have a dial to indicate weight.

These equipment characteristics most likely describes a:

- A. portioning machine
- B. dough divider
- C. weighing scale
- D. dough sheeter

29. Small hand tool used for scoring bread prior to baking.

- A. Zester
- B. Channel knife
- C. Lame
- D. Palette knife.

30. Function is to load or unload bread during baking. The equipment describe would most likely be a _____.

- A. tong
- B. chandelle
- C. lame
- D. peel

31. The byproduct of yeast during dough fermentation includes the following **EXCEPT**:
- A. heat
 - B. salt
 - C. alcohol
 - D. acid
32. Yeast action continues until the yeast cells are killed when the temperature of the dough reaches _____ in the oven.
- A. 20°C
 - B. 40°C
 - C. 60°C
 - D. 80°C
33. Bread that is dense and undercooked in the center would most likely be caused by the following **EXCEPT**:
- A. under proofing.
 - B. under baking.
 - C. baking at low temperatures
 - D. baking at extremely high temperatures
34. Method of deflating the dough that:

- | | |
|------|--|
| i. | expels carbon dioxide |
| ii. | redistributes the yeast for further growth |
| iii. | relaxes the gluten |
| iv. | equalizes the temperature throughout the dough |

The above statements most likely describes _____.

- A. degassing
- B. benching
- C. depressing
- D. folding

35.

- Rounded portion of the dough are allowed to rest for 10 to 20 minutes
- This relaxes gluten to make shaping the dough easier
- Fermentation continues during this time
- In large operations, the rounded dough is placed in special proofers for this rest
- Smaller operations place the dough in boxes that are stacked on one another to keep the dough covered
- Or the dough may simply be placed on the table top and covered

The above process refers to:

- A. Punching or knock back.
- B. Benching.
- C. Staling.
- D. Scaling.

36.

- The dough is shaped into loaves or rolls and then placed in pans or on baking sheets
- Proper make up or molding is of critical importance to the finished baked product
- All gas bubbles should be expelled during molding
- Bubbles left in the dough will results in large air pockets

These steps are referring to:

- A. Make-up and portioning.
- B. Make-up and panning.
- C. Make-up and proofing.
- D. Make-up and baking.

37. Rich dough is slightly _____ because their weaker gluten structure does not withstand too much stretching.

- A. under proofed
- B. long proofed
- C. over proofed
- D. short proofed

38. French bread is generally given a _____ to create its characteristic open crumb texture.
- A. under proof
 - B. long proof
 - C. over proof
 - D. short proof
39. Proofing temperatures are generally _____ for croissants as compared to lean doughs.
- A. lower
 - B. higher
 - C. highest
 - D. shorter
40. Baguettes with pale and dull crust most likely were the results of _____.
- A. lack of emulsifiers in formula
 - B. lack of steam in oven
 - C. over baking
 - D. baking temperature that is too high
41. A tacky and sticky dough when shaping may most likely be caused by the following **EXCEPT**:
- A. under mixing.
 - B. over mixing.
 - C. hydration percentage of 90%.
 - D. hydration percentage of 76%.
42. The minimum internal temperature for breads to completely be cooked should be _____.
- A. 75°C
 - B. 89°C
 - C. 90°C
 - D. 93°C

43. During mixing of bread dough, it is important not to rush the process in order to _____.
- A. allow yeast to become active
 - B. allow sugar to dissolve thoroughly
 - C. allow the swelling of starch and gluten
 - D. allow air to be absorbed by the dough
44. Three principal mixing methods are used for yeast dough:
- The straight dough method.
 - The modified straight dough method.
 - _____.
- A. The single method
 - B. The double method
 - C. The soft method
 - D. The sponge method
45. Italian version of a preferment dough, less hydration, and is usually about the same consistency and hydration level of French bread.
- A. Biga.
 - B. Poolish.
 - C. Starter.
 - D. Levain.
46. Preferment dough made by combining roughly equal portions of flour and water with a small amount of yeast. It is very wet.
- A. Biga.
 - B. Poolish.
 - C. Starter.
 - D. Levain.
47. Preferment dough that has been inoculated with yeast, typically the naturally-occurring fresh yeasts and associate with sourdough bread.
- A. Biga.
 - B. Poolish.
 - C. Starter.
 - D. Levain.

48. In bread baking, the term (or, more commonly, its French cognate _____) is described as the hydration rest following initial mixing of flour and water, before other ingredients (such as salt and yeast) are added to the dough.
- A. autolyse
 - B. scaling
 - C. staling machine
 - D. soggy
49. Lamination process is achieved by the incorporation of butter into dough due to rolling and turning to obtain the many layers. Ideally the butter should be _____ °C.
- A. 1
 - B. 2
 - C. 3
 - D. 4
50. Laminated dough should be of even thickness when the dough is baked. It should be proofed at 30°C and with a humidity of _____ %.
- A. 40
 - B. 60
 - C. 80
 - D. 90

SECTION B: (50 marks)

Instructions: This section consists of **TEN (10)** short answer questions. Answer **ALL** questions in the answer booklet provided.

Question 1

Below are some of the ingredients for a whole meal bread. The weight of flours is given, and the proportions of others ingredients are shown. Calculate the percentages needed for all the ingredients.

<u>Dough - ingredients</u>	<u>Weight</u>	<u>Percentages</u>
Bread flour	400 gm.	
Whole meal flour	100 gm.	
Dry yeast	20 gm.	
Bread improver	10 gm.	
Rogenna dunker	5 gm.	
Sugar castor	5 gm.	
Honey	1 tbsp.	
Salt fine	5 gm.	
Iced water	220 ml.	
Butter unsalted	15 gm.	

* 1 tbsp (volume) = 15 ml.

(5 marks)

Question 2

Determining the weight of an ingredients when the flour weight is known. Determine the weight of each of the ingredients.

<u>Dough - ingredients</u>	<u>Weight</u>	<u>Percentages</u>
Cake flour	900 gm.	100%
Butter		40%
Sugar		53.3%
Salt		1%
Eggs		33.3%
Water		20%
Vanilla essence		1.7%
Cocoa powder		15%
Baking powder		2.5%
Baking soda		0.83%
Chocolate chips		20%

(5 marks)

Question 3

- (a) Explain what is Gluten? (2 marks)
- (b) The baker must be able to control the gluten:

- Flour is mostly starch, but its protein or gluten content, not its starch, concerns the baker most.
- Without gluten proteins to give structure, baked goods would not hold together.
- Ingredient proportions and mixing methods are determined, in part, by how they affect the development of gluten.

List any **THREE (3)** techniques that the baker uses to control the gluten. (3 marks)

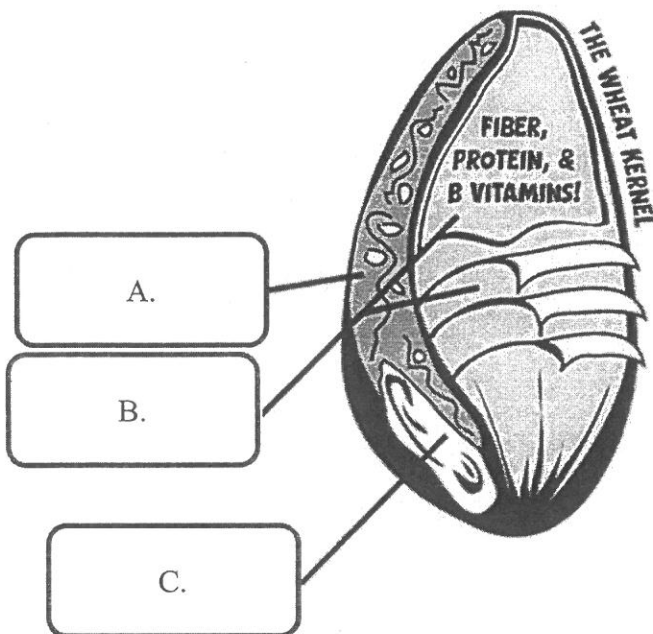
Question 4

The changes to dough as it bakes are basically the same in all baked products, from rolls to breads. There have 7 stage changes in the baking process.

List any **FIVE (5)** of these changes mentioned. (5 marks)

Question 5

- (a) Below is a diagram of wheat kernel. The wheat kernel consists of three main parts. Determine each part of the wheat kernel.



- (b) Describe characteristics of **B and C** only from the three main parts of the above wheat kernel.

(5 marks)

Question 6

Define the terms “lean dough”, “rich dough”, low hydration dough, high hydration dough and “straight dough method”.

(5 marks)

Question 7

There are 12 basic steps in the production of yeast breads. These steps are generally applied to all yeast products, with variation depending on the particular product.

List and describe only any **FIVE (5)** basic steps in the production of yeast goods.

(5 marks)

Question 8

Describe how to distinguish bread flour, cake flour and wheat starch by touch and sight?

(5 marks)

Question 9

Name **FIVE (5)** types of oven available in the professional kitchen and briefly elaborate. (5 marks)

Question 10

Describe **FIVE (5)** characteristics of a well-made baguette. (5 marks)

-THE END-

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