Nutrition
Final Examination

IT IS EXTREMELY IMPORTANT THAT YOU FOLLOW THE INSTRUCTIONS FOR ACCURATELY COMPLETING
YOUR ANSWER SHEET. IF YOUR ANSWER SHEET IS NOT COMPLETED PROPERLY, IT WILL NOT BE
SCORED, AND YOU WILL HAVE TO PAY TO RETAKE THE EXAMINATION.

Directions for Taking the Examination
This examination is designed to test your knowledge and understanding of basic hospitality industry skills. It contains 80 multiple-
choice questions. For each question, choose the response that you believe to be the correct answer. It is to your advantage to answer
every question on the examination, even if you have to guess. Skipping a question will reduce your overall examination score. The
Proctor is not allowed to discuss the contents of the questions with you at any time.

Completing the Examination Answer Sheet
Fill out the side of the Examination Answer Sheet with your name and address information completely. Print the requested
information clearly in the row of appropriate boxes. If your entire name is longer than the space provided, please abbreviate. Do not
leave space between letters of your name, and use the same name for all ManageFirst tests you take. Also, completely darken the
circles in the columns that correspond to the letters you printed in the boxes. More than one darkened circle within a column will be
recorded as an error and will result in an incorrect spelling on your Certificate.

When answering questions on your Examination Answer Sheet, be sure that the row number matches the number of the question.
Darken the circle completely. If you decide to change an answer, erase the original answer completely. Incomplete erasing, multiple
responses, or stray marks anywhere on the Examination Answer Sheet could result in incorrect scoring.

Please note that by filling out this Examination Answer Sheet, you authorize the National Restaurant Association or its designee to
release answer sheet information to appropriate sources, including you, your instructor/proctor, your employer, your school, state
restaurant associations, and all appropriate health and/or regulatory agencies.

Examination Scoring and Certificates
Examinations are scored by the National Restaurant Association. Scores will be available within 10 business days of your
examination date at managefirst.restaurant.org. Under Student Resources, select Exam and Scores, then Check Your Exam Scores.
You will need to log in with a current user ID and password or create a user profile. You will then have the option to download or
print your certificate for free or request one be mailed to you for a $10 fee. If your name is not spelled correctly, please
download, complete, and return the Name Correction Form from the Students section under Getting Started at
managefirst.restaurant.org. The form is located in the Student FAQ, How can I correct my name on my certificate if it’s misspelled?

Important: To access your examination score and/or your certificate online, you must have:
1) The Class Number, which will be provided to your instructor/proctor by the NRA once the NRA receives the exams for grading
2) Your name, email address, and mailing address as you wrote them on your Examination Answer Sheet

If you do not have this information, you must contact your Instructor/Proctor for your score; the National Restaurant Association
will not provide you with score or Class Number information.

DO NOT BEGIN THIS EXAMINATION UNTIL YOU ARE TOLD TO DO SO BY YOUR PROCTOR
1. **Lactose intolerance** is the inability to break down
   A. protein in meats.
   B. carbohydrates in bread.
   C. vitamins in fruits.
   D. sugar in dairy products.

2. **Which type of fatty acid cannot accept or bond with any more hydrogen atoms?**
   A. Monounsaturated
   B. Polyunsaturated
   C. Saturated
   D. Partially saturated

3. **Which cooking technique is NOT considered low-fat?**
   A. Grilling
   B. Deep-frying
   C. Stir-frying
   D. Poaching

4. **What is the next step after the target market has been determined?**
   A. Competitive analysis
   B. Marketplace analysis
   C. Position screening
   D. Geographic scanning

5. **How do vitamins impact metabolism in the body?**
   A. Excess vitamins can be converted to enzymes that are more effective at burning lipids.
   B. Fat-soluble vitamins allow lipids to be absorbed into the intestines and excreted out of the body.
   C. Vitamins allow the body to alter its need for energy sources by slowing reaction times.
   D. Vitamins act as co-enzymes to activate or speed up chemical reactions.

6. **A market segment with which characteristic would appear to be a good target for a new vegan menu offering?**
   A. Many local vegan restaurants
   B. Loyal to an existing competitor
   C. Small, focused group
   D. Steady or growing in numbers

7. **What are the two main categories of minerals?**
   A. Trace and major
   B. Macro and micro
   C. Heme and non-heme
   D. Water soluble and fat soluble

8. **What are home meal replacements?**
   A. Food that has been fully prepared and is ready for reheating
   B. A sit-down dinner at a local restaurant
   C. Meals eaten in a chain restaurant
   D. A new way of offering family-style meals in a restaurant setting

9. **A customer notifies a server of an allergy to nuts and asks questions about food items on the menu. What should the server do?**
   A. Assure the customer that the operation has never had a problem with allergens.
   B. Get the manager and avoid dealing with guests with allergies or food issues.
   C. Tell the customer that the recipes are not allowed to be given out.
   D. Inform the guest of menu items that are safe to eat and communicate their allergy to the chef and/or manager.
10. The difference between fats and oils is that fats

A. contain more kilocalories per gram, and oils contain fewer kilocalories per gram.
B. are from plant sources, and oils are from animal sources.
C. do not change structurally, but oils will become more saturated when refrigerated.
D. are solid at room temperature, and oils are liquid at room temperature.

11. Section 4205 of the Patient Protection and Affordable Care Act gives the responsibility of enforcement to the

A. health inspectors.
B. National Restaurant Association (NRA).
C. local governments.
D. Food and Drug Administration (FDA).

12. The process by which food is propelled down the digestive tract by waves of involuntary contractions is called

A. mastication.
B. aphagia.
C. peristalsis.
D. digestive wave.

13. Which sources are counted when calculating the amount of total daily fluid consumed?

A. Food, beverages, and drinking water
B. Beverages without caffeine and drinking water
C. All alcoholic and caffeinated beverages
D. Watery food and beverages without caffeine

14. A successful nutritional marketing plan consists of features such as documentation, targeted goals, timeliness, plan cost estimates, and

A. personal goals and objectives.
B. customer-focused goals.
C. brand loyalty recognition objectives.
D. word-of-mouth advertisement.

15. Jewish kosher dietary laws prohibit consumption of

A. shellfish.
B. beef.
C. alcohol.
D. caffeine.

16. Chemical compounds essential to helping the body maintain, generate, and repair tissue are called

A. vitamins.
B. nutrients.
C. calories.
D. starches.

17. When a customer has developed a preference for a new menu item and looks forward to requesting it upon repeat visits, this is known as the phase of

A. success.
B. decline.
C. growth.
D. regularity.

18. Which meal does the restaurant and foodservice industry currently target for take-and-go items?

A. Breakfast
B. Brunch
C. Lunch
D. Dinner
19. Which nutrients are added back to processed flour to replace the amounts lost during processing?

A. Thiamine, aspartic acid, and bran
B. Niacin, riboflavin, and folate
C. Iron, calcium, and thiamine
D. Magnesium, iron, and folate

20. A standard menu item that requires labeling includes

A. self-service items.
B. customer orders.
C. daily specials.
D. condiments.

21. Front-of-the-house employees have a direct impact on

A. products being served.
B. menu planning.
C. receiving product deliveries.
D. cleaning schedules for the back of the house.

22. An example of a nutrient content claim is

A. “organically grown.”
B. “heart healthy.”
C. “under 200 calories.”
D. “low in sodium.”

23. The Nutrition Labeling and Education Act of 1990 (NLEA) requires

A. all nutrient content claims to be consistent with regulations.
B. all stores to offer information on how to read nutrition labels.
C. labels on the packaging of all fresh fruit and vegetables.
D. labeling of all food intended for immediate consumption.

24. Which is a mandatory component of a nutrition facts panel?

A. Water content
B. Cholesterol
C. Sell-by date
D. Triglycerides

25. What percentage of the U.S. population has cardiovascular disease?

A. 11
B. 37
C. 64
D. 72

26. Laws that govern menu accuracy are known as

A. healthy claim menu.
B. nutrient menu.
C. responsible menu.
D. truth-in-menu.

27. Offering water to a customer provides health benefits because it

A. stimulates the brain to perceive more enjoyment of the meal.
B. has a significant role in metabolic processes.
C. has no health benefits but is very courteous.
D. interferes with the absorption of fat.

28. Which lipid can be synthesized by the body, is found only in animal foods, and is a combination of a steroid, an alcohol, and a closed ring of carbon atoms?

A. Cholesterol
B. Saturated fatty acid
C. Phospholipid
D. Triglyceride
29. Which processing step can be taken to force fruit and vegetables to ripen?
   A. Exposure to sunlight after picking
   B. Holding under reduced air pressure
   C. Treatment with ethylene gas
   D. Spraying with enzymatic activators

30. The first step in designing a sales promotional mix plan for an operation is to
   A. determine strategies and objectives.
   B. identify the target audience.
   C. increase the size of the tower sign.
   D. let the CEO be the pitch person for the operation.

31. Chyme is the
   A. secretion released by the gallbladder.
   B. liquid that results from food processed in the stomach.
   C. enzyme that allows for the breakdown of lipids.
   D. waste product from digestion that forms into feces.

32. Using the ADDIE model for training development, goals are translated into
   A. skill gaps.
   B. performance standards.
   C. needs assessments.
   D. standard operating procedures (SOPs).

33. Why are high protein/low carbohydrate diets popular amongst consumers?
   A. Low carbohydrate diets result in increased energy.
   B. Low carbohydrate diets decrease appetite and result in weight loss.
   C. Low carbohydrate diets are low in fat and are heart healthy.
   D. Low carbohydrate diets contain all required essential nutrients.

34. Which document focuses on food choices, reduces the risk of chronic diseases, and is published jointly by the Department of Health and Human Services and the USDA?
   A. Guidelines for Healthy Americans
   B. Recommended Dietary Guidelines
   C. Dietary Guidelines for Americans
   D. Healthy Food, Healthy Bodies

35. Dark orange and green vegetables, sweet potatoes, and mangoes are good sources of
   A. biotin.
   B. niacin.
   C. vitamin A.
   D. vitamin D.

36. If a customer has a wheat allergy and eats a menu item that has been floured, which part of the food causes the allergic reaction?
   A. Carbohydrate
   B. Protein
   C. Mineral
   D. Vitamin
37. The culinary art of preparing food can be combined with nutrition at the restaurant level by
A. changing to unprocessed ingredients and improving plating methods to enhance visual appeal.
B. keeping recipes the same but using all low-fat ingredients and using visual menus.
C. providing a larger vegetable serving with each dish and allowing consumers to observe the cooking process.
D. engaging all of the consumer's senses and using ingredients prepared by healthier cooking techniques.

38. Which plant-based item is considered to be a good source of iron?
A. Roasted zucchini
B. Vanilla soy milk
C. Tomato sauce
D. Legume

39. How many ounces is the U.S Department of Agriculture's (USDA) recommendation for a meal's portion-size of meat, poultry, or fish?
A. 3
B. 5
C. 8
D. 12

40. The manager has chosen to offer new lower-fat entrées at a reduced menu price Monday through Friday from 4-6 pm. This concept is referred to as a
A. personal sale.
B. publicity event.
C. sales promotion.
D. media blitz.

41. What are the essential aspects to the successful implementation of a nutrition program?
A. Employee suggestions
B. Management’s directive regarding job safety
C. Clearly defined roles and responsibilities
D. Successful implementation of customer suggestions

42. Which type of nutrition analysis is in use when samples are prepared, packaged, and sent to a company for analysis?
A. Analysis by calculation
B. Laboratory analysis
C. Software analysis
D. Label requirement analysis

43. According to the Food and Drug Administration (FDA) regulations for section 4205 of the Patient Protection and Affordable Care Act, table-service operations, coffee shops, and cafeterias are examples of which type of establishment?
A. Covered
B. Not covered
C. Local
D. Unregulated

44. Disclosing personal food allergies or dietary needs is the responsibility of the
A. chef.
B. customer.
C. manager.
D. server.
45. When a person restricts intake of carbohydrates to extremely low levels, which change in metabolism takes place?

A. The body speeds up metabolism of vitamins and use of water.
B. Glucose is metabolized by the adipose cells to form ketones.
C. The body can only use the energy in the food eaten, not from body stores.
D. Fat cannot be fully metabolized or broken down to form ketones.

46. While it may be necessary to cook tough cuts of meat using a moist-heat cooking method such as braising, which added benefit comes from this process?

A. The fat renders and adds flavor and moisture to the dish.
B. The cooking process converts saturated fat into unsaturated fat.
C. It allows for safe, quick cooking of these cuts.
D. It increases the nutrient level of the meat.

47. A person following a lacto-ovo vegetarian diet would eat which dish?

A. Scrambled eggs with onions and salsa and a side of pork bacon
B. An omelet with soy cheese, diced lean ham, and peppers and a side of wheat toast
C. A plain omelet with a side of fried potatoes and turkey sausage links
D. Scrambled eggs with reduced-fat cheese and mushrooms and a side of fried potatoes

48. What is the primary role of carbohydrates in the diet?

A. Build muscles
B. Repair cells
C. Regulate body activities
D. Supply energy

49. The Dietary Guidelines for Americans recommend that half of the grains consumed should come from whole grain products. Which recipe change would help implement this recommendation?

A. Brown rice in rice pilaf
B. Spinach pasta noodles in a casserole
C. Raisin toast on the breakfast menu
D. Mixed fruit pie in place of apple pie

50. What is the diet recommended by the National Institutes of Health that is low in sodium but rich in sources of calcium, magnesium, and potassium?

A. H.E.A.R.T.
B. D.A.S.H.
C. L.I.F.E
D. D.I.N.E.

51. Which process could be used in genetic modification of plants and animals?

A. Contra breeding
B. Selective breeding
C. Recombinant DNA
D. Modified selection

52. The application of technology to living organisms in order to produce something of use is called

A. propagation harvesting
B. proliferation breeding
C. transmutation
D. biotechnology.
53. High-density lipoproteins are considered healthier to the heart because they
A. contain more fat and less protein than low-density lipoproteins.
B. reduce the need for fat and cholesterol intake in the body.
C. stimulate the liver to release cholesterol into the intestines.
D. remove plaque from the artery walls and LDL from the blood.

54. Which threat to the operation could result from using peanut oil for frying?
A. Blighted soy bean crops in Southern states
B. Bad press related to food allergy issues
C. A competitor advertising its own lard frying
D. An increase in the popularity of almond butter

55. What is the primary role of front-of-the-house staff?
A. Interaction with customers
B. Vendor purchase specifications
C. Recipe modifications
D. Employee scheduling

56. Which demographic variable is important to nearly all restaurant operations?
A. Household size
B. Education
C. Ethnicity
D. Income

57. How many ounces of an 80-proof distilled spirit are in one serving?
A. 0.75
B. 1
C. 1.5
D. 2

58. Which is a benefit of having a versatile menu based on using locally harvested food?
A. The extra cost for purchasing seasonal items is always passed on to customers.
B. There is less hassle by using local farmers compared to finding a certified vendor.
C. Reduced handling allows products to retain more nutrients.
D. Seasonal products always require less preparation and cut staffing cost.

59. Moderate alcohol consumption as defined by the Dietary Guidelines for Americans 2010 should be
A. two drinks a day for women.
B. 10 fluid ounces of wine for women.
C. two drinks per day for men.
D. one fluid ounce of 100-proof distilled spirits.

60. Which information is needed to calculate the Body Mass Index level?
A. Measurements of weight in kilograms and width of the wrist
B. Measurements of weight in pounds and height in inches
C. Circumference of waist and hips
D. Size of the wrist, waist, and thigh

61. Menu labeling regulations apply to vending businesses operating how many machines?
A. Fewer than 20
B. 20 or more
C. 60 or more
D. 500 or more
62. What percent of life-threatening allergic reactions are caused by the eight known allergens?

A. 65  
B. 75  
C. 80  
D. 90

63. A healthy diet should include

A. balance, variety, and moderation.  
B. overuse of dietary supplements.  
C. following popular fad diets that offer quick weight loss.  
D. following a diet higher in saturated fat and cholesterol.

64. Health problems that could occur with excessive protein intake are

A. osteoporosis, kidney stones, and dehydration.  
B. gallbladder attacks and loss of hair pigmentation.  
C. over-hydration, bloating, and anxiety.  
D. pancreatic failure, fatigue, and hair loss.

65. Upon completion of sales promotions using coupons, managers should gather target audience feedback by

A. conducting a survey.  
B. tracking redemption.  
C. social media feedback.  
D. checking invoices.

66. Menu merchandising is important to maintain

A. profitability of an operation.  
B. appearance of the menu.  
C. interest by customers.  
D. marketing plans.

67. The daily value of sodium for an adult is set at how many milligrams?

A. 300  
B. 800  
C. 1,200  
D. 2,400

68. To help employees remember information that is difficult to remember or rarely used, a manager should provide them with

A. training manuals.  
B. job aids.  
C. performance standards.  
D. needs assessments.

69. Which vitamins can be absorbed into the body’s adipose tissues?

A. Vitamins E and K  
B. Vitamin A and riboflavin  
C. Folate and niacin  
D. Vitamin D and folate

70. How does food irradiation (ionizing radiation) affect a food product?

A. The level of parasites and bacteria is dramatically reduced.  
B. The level of herbicides present is reduced.  
C. Cooking meat to a safe internal temperature is not needed.  
D. Leftover food will remain safe without refrigeration.

71. What is the name of the disaccharide that is a combination of two glucose molecules?

A. Dextrose  
B. Galactose  
C. Maltose  
D. Sucrose
72. To implement a nutrition program that focuses on smaller portions and fewer calories, managers may need to rethink the
   A. MyPlate concept.
   B. center of plate concept.
   C. food guide pyramid.
   D. dietary guidelines.

73. Chefs can build flavor in layers by using fat-free marinades, dry rubs, and
   A. sodium.
   B. emulsion sauces.
   C. infused oils.
   D. sous vide.

74. How has the increase in meals consumed away from home impacted the foodservice industry?
   A. Restaurants have reported little change in consumer requests.
   B. Consumers have started requesting healthier food choices.
   C. There are fewer career opportunities in the industry.
   D. Healthier food choices are requested but menus haven’t changed.

75. The calculation for the Recommended Dietary Allowance for protein is based on an individual’s
   A. body weight.
   B. age.
   C. gender.
   D. typical diet.

76. To lower fat in a recipe, a good substitute for butter would be
   A. olive oil.
   B. lard.
   C. shortening.
   D. palm oil.

77. Which items are an acceptable replacement for flour and fat-based roux?
   A. Roasted meat drippings
   B. Cornstarch and water slurry
   C. Unskimmed beef stock
   D. Puréed cottage cheese

78. The basic difference between type 1 and type 2 diabetes is the
   A. type of carbohydrates to be eaten in a day.
   B. type of diet that is recommended to be followed.
   C. amount of the hormone insulin produced by the body.
   D. method that the body uses to metabolize carbohydrates.

79. When changing from a prime cut of meat to a select cut of meat, can the recipe be prepared in the same method?
   A. Yes, there is no need to change the cooking methods.
   B. Yes, however the end product will have a noticeably more fat.
   C. No, the cooking method will have to be changed to a moist method.
   D. No, the only way to prepare tough cuts is to use chemical tenderization.
80. Increasing physical activity is important to

A. plan menus with MyPlate.
B. increase the intake of fruits and vegetables.
C. balance calories to manage weight.
D. reduce the consumption of trans fatty acids.