

**AGA KHAN UNIVERSITY EXAMINATION BOARD
SECONDARY SCHOOL CERTIFICATE**

CLASS IX

ANNUAL EXAMINATIONS 2022

Food and Nutrition

Total Time: 1 hour 40 minutes

Total Marks: 50 (40-Theory & 10-Alternate to Practical)

INSTRUCTIONS

1. Read each question carefully.
2. Answer the questions on the separate answer sheet provided. DO NOT write your answers on the question paper.
3. There are 100 answer numbers on the answer sheet. Use answer numbers 1 to 50 only.
4. Question Distribution:

Theory	Alternate to Practical (ATP)
40 MCQs	10 MCQs

5. In each question, there are four choices A, B, C, D. Choose ONE. On the answer grid, black out the circle for your choice with a pencil as shown below.

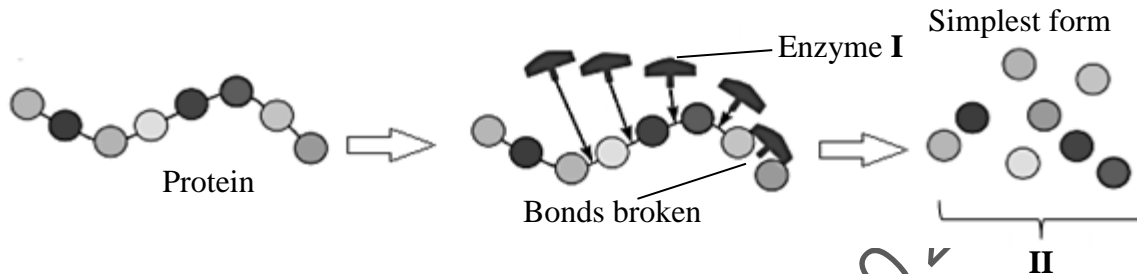
Correct Way	Incorrect Ways
1 (A) (B) (C) (D)	1 (A) (B) (C) (D)
	2 (A) (B) (C) (D)
	3 (A) (B) (C) (D)
	4 (A) (B) (C) (D)

Candidate's Signature

6. If you want to change your answer, ERASE the first answer completely with a rubber, before blacking out a new circle.
7. DO NOT write anything in the answer grid. The computer only records what is in the circles.
8. The marks obtained on the 40 MCQs will be equated to the total marks of 65 for the theory examination results.
9. You may use a simple calculator if you wish.

THEORY (Questions 1-40)

1. The given diagram shows the conversion of protein into its simplest form by enzyme I.



The labelled enzyme, I and the simplest form II, are identified as

	I	II
A	amylase	amino acids
B	protease	amino acids
C	amylase	glucose
D	protease	glucose

2. One of the complex form of carbohydrates that is obtained from animal sources is
- fibre.
 - starch.
 - glucose.
 - glycogen.
3. The BEST food sources of carbohydrate, calcium, fibre and vitamin C together are
- fish and eggs.
 - meat and milk.
 - yoghurt and cheese.
 - green beans and cereals.
4. The symptom of malnutrition that can be treated by an increased amount of protein in the diet is
- obesity.
 - constipation.
 - stunted growth.
 - swelling of joints.

5. The given table shows some of the nutrients present in four different food items.

	Food Item	Iron/mg Per 100g of Food	Calcium/mg Per 100g of Food	Vitamin C/mg Per 100g of Food	Vitamin D /mg Per 100g of Food
I	Banana	0.4	7	10	0
II	Fish	0.4	35	0	6.38
III	Lentils	7.6	30	0	0
IV	Milk	0.1	120	0.5	0.002

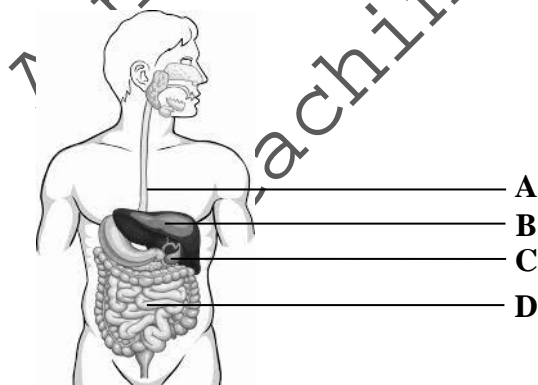
The foods that promote the healthy growth of bones and teeth of a child are

- A. I and II.
- B. I and III.
- C. II and III.
- D. II and IV.

6. The CORRECT categorisation of water-soluble and fat-soluble vitamins is

	Water Soluble Vitamin	Fat Soluble Vitamin
A	vitamin C	vitamin B
B	vitamin K	vitamin A
C	vitamin E	vitamin D
D	vitamin B	vitamin E

7. In the given diagram of human digestive system, the labelled part where bile is produced is



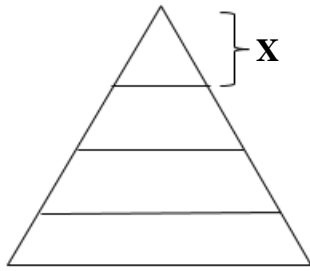
8. In the human digestive system, the part where fat digestion takes place is

- A. stomach.
- B. oesophagus.
- C. large intestine.
- D. small intestine.

PLEASE TURN OVER THE PAGE

9. The laboratory report of Abdullah reveals that his stomach is not producing enough acid. The chemical conversion that will be stop due to his stomach's condition is
- A. starch → maltose.
 - B. maltose → glucose.
 - C. pepsinogen → pepsin.
 - D. sucrose → glucose and fructose.
10. A person's diet contains more proteins than is needed for growth and repair. This would cause an increased production of
- A. urea.
 - B. sweat.
 - C. hormones.
 - D. carbon dioxide.
11. The food item that exemplifies a public health strategy to overcome nutritional deficiencies is
- A. fortified tetra pack juices.
 - B. boiled and frozen chickpeas.
 - C. fresh milk taken from the farms.
 - D. cottage cheese made from fresh milk.
12. Regular vitamin B1 (thiamine) supplements should be recommended to a person who is suffering from
- A. goiter.
 - B. rickets.
 - C. anaemia.
 - D. beri-beri.
13. In humans, the disease that is caused by lower intake of proteins in diet is
- A. goiter.
 - B. anaemia.
 - C. marasmus.
 - D. night blindness.
14. All of the following are symptoms of marasmus EXCEPT
- A. dry skin.
 - B. swollen belly.
 - C. projected ribs.
 - D. retarded growth.

15. The given diagram shows an outline of a food pyramid.



The labelled portion **X** includes

- A. fats and oils.
 - B. fish and mutton.
 - C. milk and yoghurt.
 - D. fruits and vegetables.
16. The key message emphasised by the concept of 'MyPlate' is to make
- A. half plate of proteins and fats.
 - B. quarter plate of fats and grains.
 - C. half plate of fruits and vegetables.
 - D. quarter plate of proteins and grains.
17. Iron supplements are mostly recommended to all of the following healthy individuals EXCEPT
- A. teenage girls.
 - B. pregnant women.
 - C. infants and toddlers.
 - D. post-menopausal women.
18. The nutrient that is required considerably in LESSER amount during lactation than in pregnancy is
- A. iron.
 - B. iodine.
 - C. calcium.
 - D. phosphorus.
19. Hina is a working woman. Due to her busy schedule, she skips her meals and often takes snacks like salty chips, *samosa* and fizzy drinks.
- If she continues this habit for a long period, then she might
- A. become obese.
 - B. have strong muscles.
 - C. suffer from diarrhoea.
 - D. gain more energy to do her tasks.

20. If someone wants to lose weight, then a healthy breakfast for them would include

- A. *aloo paratha*.
- B. *qeema kachori*.
- C. oatmeal with nuts.
- D. bread toast with butter.

21. Teenagers often take potato fries or chips with fizzy drinks as their evening snack.

To ensure their optimal health, the BEST alternate of this evening snack would be

- A. coffee.
- B. *samosa*.
- C. cake rusk.
- D. fruit milk shake.

22. The food label of a cereal indicates 1/2 cup of cereal for one serving.

If a person consumes 3/4 cup of cereal, then this indicates that the

- A. serving size is measured in cups.
- B. portion size is equal to serving size.
- C. portion size is greater than serving size.
- D. serving size is greater than portion size.

23. Ahmed's body weight is 85 kg and his height is 1.72 metres.

The body mass index (BMI) of Ahmed is

- A. 2.87
- B. 14.62
- C. 28.73
- D. 49.41

24. A slice of bread with a tablespoon of peanut butter on it contains 16 grams of carbohydrates, 7 grams of proteins and 9 grams of fats.

The total energy available from this food is

- A. 28 kcal.
- B. 64 kcal.
- C. 81 kcal.
- D. 173 kcal.

25. The mineral abundantly found in red meat is

- A. iron.
- B. sodium.
- C. calcium.
- D. potassium.

26. Cucumbers with skin are a good source of
- A. sodium.
 - B. calcium.
 - C. vitamin B.
 - D. vitamin K.
27. Nuts are MAINLY rich in
- A. vitamin A.
 - B. vitamin D.
 - C. vitamin E.
 - D. vitamin K.
28. The nutrients NOT present in milk are
- A. phosphorus and calcium.
 - B. vitamin B and magnesium.
 - C. vitamin C and iron.
 - D. sugars and fatty acids.
29. The vegetables with antibacterial properties are
- A. onion and ginger.
 - B. onion and potatoes.
 - C. cabbage and onion.
 - D. cabbage and potatoes.
30. The health condition that develops in children due to an inadequate intake of calcium and vitamin D is
- A. scurvy.
 - B. rickets.
 - C. constipation.
 - D. osteoporosis.
31. Vitamin C changes cholesterol into a form that is less likely to be deposited in the walls of arteries.

With reference to the given statement, the dietary advice that should be given to prevent heart diseases is to eat more

- A. bread and less meat.
- B. butter and less bread.
- C. meat and less oranges.
- D. oranges and less butter.

32. Consider the given food label.

Food Label	
Serving size 1/2 cup 194.15 g	
Amount Per Serving	
Calories 260	Calories from Fat 35
%Daily Value	
Total Fat 4 g	
Saturated Fat 1 g	6%
Trans Fat 3 g	8%
Cholesterol 10 mg	3%
Sodium 320 mg	13%
Total Carbohydrate 51 g	17%
Dietary Fibre 3 g	12%
Sugars 5 g	20%
Protein 6 g	
Vitamin A	2%
Calcium	0%
Vitamin C	20%
Iron	4%

This label indicates that the food item

- A. is beneficial for weight loss.
 B. will improve bone health and calcium absorption.
 C. is a rich source of energy and helps in iron absorption.
 D. will reduce risk of hypertension and cardiovascular diseases.
33. The BEST method to make a barley porridge with a smooth consistency is to
- A. steam the barley for a few seconds and then add milk.
 B. bake the barley for few minutes and then add some fruits.
 C. cook the barley with water for a few minutes and then add milk.
 D. roast the barley with nuts for a few seconds and then add honey.
34. The BEST way of cooking spinach without losing its nutrients is to
- A. sauté it with some olive oil.
 C. boil it for an hour and simmer.
 B. coat it with batter and then deep fry.
 D. blanch it and then roast it on high flame.
35. Excessive trimming of fat from a cut of mutton will
- A. tenderise the meat faster.
 B. prevent the shrinking of meat.
 C. reduce the moisture and vitamin D content of the meat.
 D. delay the denaturation of protein in the meat.

36. The option that depicts the CORRECT water requirement and cooking time for refined cereals is

	Water Requirement	Cooking Time
A	less	long
B	less	short
C	more	long
D	more	short

37. Amna needs two pints of milk to prepare a dessert. She uses a cup of 250 ml for this measurement.

The number of cup of milk she will use for the preparation of dessert is

- A. one.
B. two.
C. three.
D. four.
38. The set of cooking methods that use dry heat is
- A. baking, grilling and roasting.
B. baking, grilling and steaming.
C. baking, steaming and roasting.
D. grilling, steaming and roasting.
39. Karima performs the following actions before cooking the chicken.
- I. She washes the chicken and wiped her hands with a dishtowel.
II. She washes the cutting board with hot soapy water.
III. She wipes the countertop with tap water.

The act(s) which will prevent the cross contamination is/ are

- A. II only.
B. III only.
C. I and II.
D. I and III.
40. While frying, if grease (oil) catches fire in the pan, one should turn off the stove and
- A. pour water on the fire.
B. carry the pan to the sink.
C. put a metal lid on the pan.
D. cover the fire with a towel.

ALTERNATE TO PRACTICAL (ATP: Questions 41-50)

41. Kamal had a short time to prepare fried fish for his lunch. He kept flipping the fish while frying.

This action will make the fried fish

- A. soggy and undercooked.
 - B. crispy and undercooked.
 - C. soggy and overcooked.
 - D. crispy and overcooked.
42. The ingredients, other than all-purpose flour (*maida*), that are used to make a soft pizza dough in a short time are
- A. yogurt, warm water, salt and oil.
 - B. yogurt, chilled water, sugar, salt and oil.
 - C. instant yeast, warm water, sugar, salt and oil.
 - D. instant yeast, chilled water, sugar, salt and oil.
43. Ibrahim tried to prepare crispy fried chicken, but it turned out to be soggy after sometime.
- This is because he must have
- A. marinated the chicken overnight.
 - B. fried the chicken on a medium flame.
 - C. used chilled batter for the coating of chicken.
 - D. laid the hot freshly fried chicken immediately on the top of paper towels.
44. To keep the chicken breast pieces from drying out on the grill, first the chicken should be
- A. boiled.
 - B. frozen.
 - C. sautéed.
 - D. marinated.
45. Alishba prepared coleslaw that taste bitter.
- In order to improve the flavour of the coleslaw, she should add some
- A. vinegar.
 - B. black pepper.
 - C. paprika powder.
 - D. chicken powder.

46. A person is preparing chef-style *qorma* with one-kilogram chicken for 6-8 persons. The option that shows the CORRECT amount of fried onions and yogurt required is

	Fried Onion	Yogurt
A	1 cup	half cup
B	1 cup	1.5 cup
C	4 cups	1.5 cup
D	4 cups	half cup

47. Poached eggs are cooked by using

- A. melted butter.
- B. a little amount of *ghee*.
- C. slightly heated olive oil.
- D. barely simmering water.

48. To make crispy potato fries, the potato strips should be

- A. peeled very thin.
- B. dried after rinsing.
- C. frozen for minimum 10 hours.
- D. seasoned with salt before frying.

49. In mutton *karahi*, the ingredients that give it the characteristic flavour and aroma are

- A. yogurt, red chilies and garlic.
- B. yogurt, green chilies and onion.
- C. tomatoes, white pepper and onion.
- D. tomatoes, green chilies and ginger.

50. In the preparation of *chapli kebabs*, minced meat is used which is

- A. boiled with spices.
- B. mixed with boiled potatoes.
- C. mixed with boiled gram lentils.
- D. ground with fats and bone marrow.

Please use this page for rough work

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