

UNIQUE STUDY POINT

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Class: VI	Subject: Science	Session: 2025-26
Chapter: 03 - Mindful Eating: A Path to a Healthy Body	Time: 1½ Hours	Max. Marks: 40

General Instructions:

1. All questions are compulsory.
2. This question paper contains 20 questions divided into five sections A, B, C, D and E.
3. Section A contains 10 MCQs of 1 mark each.
4. Section B contains 4 questions of 2 marks each.
5. Section C contains 3 questions of 3 marks each.
6. Section D contains 1 question of 5 marks.
7. Section E contains 2 Case Study Based questions of 4 marks each.

SECTION A - Multiple Choice Questions (1 mark each)

Q1. Which of these is a plant source of protein?

- (a) Fish
- (b) Milk
- (c) Peas and beans
- (d) Eggs

Q2. Beriberi is caused by deficiency of:

- (a) Vitamin A
- (b) Vitamin B1
- (c) Vitamin C
- (d) Vitamin D

Q3. When copper sulphate and caustic soda are added to protein, what color appears?

- (a) Blue
- (b) Red
- (c) Violet
- (d) Yellow

Q4. Which is NOT a source of carbohydrates?

- (a) Wheat
- (b) Rice

- (c) Fish
- (d) Sugarcane

Q5. The traditional grinding tool used with a mortar is called:

- (a) Pestle and mortar
- (b) Sil-batta
- (c) Chakki
- (d) Sieve

Q6. Which symptom indicates anaemia?

- (a) Bone and tooth decay
- (b) Weakness and shortness of breath
- (c) Bleeding gums
- (d) Poor vision

Q7. Food miles refers to:

- (a) Distance between farms
- (b) Distance food travels from producer to consumer
- (c) Height of food storage
- (d) Speed of food transportation

Q8. Which food item has oily patch on paper?

- (a) Potato
- (b) Bread
- (c) Peanuts
- (d) Rice

Q9. Calcium deficiency causes:

- (a) Anaemia
- (b) Bone and tooth decay
- (c) Night blindness
- (d) Goitre

Q10. Which is a protective nutrient?

- (a) Carbohydrate
 - (b) Fat
 - (c) Vitamin
 - (d) Starch
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SECTION B - Short Answer Questions (2 marks each)

- Q11.** Differentiate between carbohydrates and proteins based on their functions.
- Q12.** What changes in food habits and cooking practices occurred due to technological development?
- Q13.** Why is eating locally grown food beneficial? List two benefits.
- Q14.** Name two plant-based and two animal-based sources of protein.

SECTION C - Short Answer Questions (3 marks each)

- Q15.** Explain the procedure for testing starch in food items with iodine. What would indicate a positive result?
- Q16.** What is the importance of water and dietary fibre in our diet? How do they help our body?
- Q17.** Design a one-day balanced diet chart for a 12-year-old child. Include different food groups.

SECTION D - Long Answer Question (5 marks)

- Q18.** Explain what a balanced diet is. Describe all seven essential components of a balanced diet and give examples of food sources for each.

SECTION E - Case Study Based Questions (4 marks each)

Q19. Case Study: Food Testing Experiment

A student conducted food testing experiments on various food items (potato, rice, peanuts, bread, butter) using starch, fat, and protein tests. Results showed: Potato (starch +ve), Peanuts (starch +ve, fat +ve, protein +ve), Butter (fat +ve), Rice (starch +ve), Bread (starch +ve, protein +ve)

- (i) Which food item has maximum nutrients?
- (ii) Which food should be chosen for energy only?
- (iii) Why is it important to include different foods in diet?

Q20. Case Study: Disease Prevention Through Nutrition

A deficiency of certain nutrients can lead to specific diseases. For example, Vitamin A deficiency causes night blindness, Vitamin D deficiency causes rickets, and Iron deficiency causes anaemia. A child showing signs of weakness and shortness of breath visited a doctor.

- (i) What deficiency disease is the child likely suffering from?
- (ii) Which nutrient should be added to the diet?
- (iii) List three food items rich in this nutrient.

SECTION A - Answers to MCQs

Q1. Answer: (c) Peas and beans

Plant sources of protein include pulses, beans, peas, nuts, and soya bean. Fish, milk, and eggs are animal sources.

Q2. Answer: (b) Vitamin B1

Beriberi is caused by Vitamin B1 deficiency, resulting in swelling, tingling, burning sensation in feet and hands, and trouble breathing.

Q3. Answer: (c) Violet

When copper sulphate and caustic soda are added to protein, a violet/purple color appears, confirming the presence of protein.

Q4. Answer: (c) Fish

Fish is a source of protein and fat, not carbohydrates. Wheat, rice, and sugarcane are carbohydrate sources.

Q5. Answer: (b) Sil-batta

Sil-batta is a stone grinder traditionally used for grinding grains. It consists of a flat stone (sil) and a cylindrical stone (batta) held in hand.

Q6. Answer: (b) Weakness and shortness of breath

Anaemia is caused by iron deficiency, resulting in weakness, tiredness, and shortness of breath.

Q7. Answer: (b) Distance food travels from producer to consumer

Food miles is the entire distance traveled by food from farm to consumer, including all transportation stages.

Q8. Answer: (c) Peanuts

Peanuts contain high fat content, so they leave an oily patch on paper. Butter also shows fat. Potato, bread, and rice do not contain much fat.

Q9. Answer: (b) Bone and tooth decay

Calcium deficiency results in weak bones and tooth decay. Calcium is essential for healthy bones and teeth.

Q10. Answer: (c) Vitamin

Vitamins (and minerals) are protective nutrients that protect our body from diseases. Carbohydrates and fats provide energy; proteins build tissues.

SECTION B - Answers to Short Answer Questions

Q11. Answer:

Carbohydrates: Primary energy-giving nutrient, provides energy for daily activities, sources: wheat, rice, sugar

Proteins: Body-building nutrient, supports growth and repair of tissues, sources: pulses, milk, eggs. Both are essential but serve different functions.

Q12. Answer: Technological development brought: (1) Cooking changed from chulha to gas/electric stoves - faster and cleaner, (2) Grinding changed from sil-batta to electrical grinders - less effort and time, (3) Food preservation and transportation improved - more variety of foods available.

Q13. Answer: Benefits of eating locally grown food:

- (1) Reduces food miles - less pollution during transport
- (2) Food is fresher and healthier - retains more nutrients
- (3) Supports local farmers and economy
- (4) Good for environment - reduces carbon footprint

Q14. Answer:

Plant-based proteins: Pulses (dal), beans, peas, peanuts, soya bean

Animal-based proteins: Milk, paneer, eggs, fish, meat, chicken

SECTION C - Answers to Short Answer Questions

Q15. Answer:

Procedure: (1) Take a small quantity of food item, (2) Place on a separate dish, (3) Add 2-3 drops of diluted iodine solution using dropper, (4) Observe color change.

Positive result: Blue-black color indicates presence of starch.

Q16. Answer:

Water: Helps absorb nutrients from food, removes waste from body through sweat and urine, maintains body temperature, essential for all bodily functions.

Dietary fibre (roughage): Does not provide nutrients but is essential, helps remove undigested food, ensures smooth passage of stools, prevents constipation.

Q17. Answer: Sample Balanced Diet for 12-year-old:

Breakfast: Whole wheat toast, egg, glass of milk

Mid-morning: Fresh fruit (apple/banana)

Lunch: Rice, dal, green vegetables, yogurt

Evening snack: Roasted chana or peanuts

Dinner: Chapati, vegetable curry, spinach

Includes: Carbohydrates (grains), proteins (dal, egg, milk), fats (minimal), vitamins/minerals (fruits, vegetables), water and fibre.

SECTION D - Answer to Long Answer Question

Q18. Answer: Balanced Diet Definition and Components:

Definition: A diet containing all essential nutrients, roughage, and water in the right amounts for proper growth and development is a balanced diet.

Seven components:

1. **Carbohydrates** (energy-giving) - Wheat, rice, sugar
2. **Proteins** (body-building) - Pulses, milk, eggs, fish
3. **Fats** (energy-giving) - Oil, butter, nuts
4. **Vitamins** (protective) - Fruits, vegetables
5. **Minerals** (protective) - Milk, green vegetables, iodised salt
6. **Dietary fibre/Roughage** - Whole grains, vegetables, fruits
7. **Water** - Plain water, fruits, vegetables

Importance: Provides energy, supports growth, repairs body, prevents diseases, maintains health.

SECTION E - Answers to Case Study Based Questions

Q19. Answer:

(i) Peanuts have maximum nutrients as it shows presence of starch, fat, and protein (+ve for all three tests)

(ii) Butter should be chosen for energy only as it contains only fat

(iii) It is important to include different foods in diet because: (1) Different foods provide different nutrients, (2) No single food contains all nutrients, (3) A variety ensures balanced diet, (4) Prevents nutritional deficiencies.

Q20. Answer:

(i) The child is likely suffering from **Anaemia** (symptoms: weakness, shortness of breath)

(ii) **Iron** nutrient should be added

(iii) Three food items rich in iron: (1) Green leafy vegetables (spinach, lettuce), (2) Beetroot, (3) Pomegranate

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