CBSE Test Paper 01
CH-02 Sports and Nutrition

1. What are Carbohydrates?
2. Critically explain the use of dietary supplements in heavy dose for longer duration. Justify your answer with two suitable examples.
3. What are carbohydrates?
4. What do you mean by healthy weight?
5. Define food supplements.
6. Enlist the forms of Vitamin B and explain any one in brief.
7. In sports such as Boxing & Wrestling, the players tend to lose weight sharply. Explain pitfall of dieting?
8. Write a short note on vitamin.
9. What is role of diet in sports performance?
10. What is the role of various elements of diet on the performance of an athlete?

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Answer

1. Carbohydrates: Carbohydrates are the main source of energy. They provide quick energy to the and are not stored in body for long. Main sources of carbohydrates are bread, rice, potatoes, cereals, etc.
2. a. Excess calcium in diet for longer time can cause heart diseases/ formation of stones in kidney.
   b. Excess iron causes vomiting and headache, Food poisoning.
   c. Vitamin E can cause prostates cancer.
3. Carbohydrates are compounds of carbon, hydrogen and oxygen. Sources Fruits, milk,

vegetables, pulses, bajra, rice, cakes etc. Functions The main function of carbohydrates is to provide energy for the body, brain and nervous system.

4. A healthy weight is considered to be one that is between 19-25 BMI. If the BMI is between 25-29 an adult is considered overweight and if it is above 30, the person is considered to be obese.
5. Food supplements are concentrated sources of nutrients taken as a dietary top-up. They are given in addition to your regular diet. They can add missing nutrients two diets. Food supplements are Proteins, VItamins, Minerals, Etc.
6. There are 12 vitamins under vitamin 'B' complex. Important forms of vitamin B are B_1, B_2, B_3, B_5, B_6, B_{12}.**Vitamin B_2:** This vitamin is also called **Riboflavin**. It is yellow in color and usually destroyed in sunlight and in cooking for a longer period. It helps in preserving and maintaining the characteristics of youth, tightness and smoothness of skin, and body tissues etc. It is very essential to keep eyes, nose, lips, mouth, tongue in healthy state. Its deficiency cause stunted growth, unhealthy skin, inflamed eyes. Its deficiency also decreases immunity of WBC's.
7. Pitfalls of Dieting are as follows: 1. Intake of calories through drinking: when you want to lose weight you try to eat less and drink less too things like sweetened juices, sodas, coffee and ice creams etc. all these contribute to weight gain. 2. Underestimating the calories: it is a fact that most of the persons who go on dieting usually underestimate the number of calories they consume. So, it is essential to be more aware about the number of calories you take in your diet. 3. Crash dieting takes the biggest toll on water reserves of our body. Loss of water impairs (check/reduces) circulation and therefore overworks the heart and kidneys. 4. Intake of labeled foods. 5. Not performing exercises.
8. Vitamins are complex compounds of carbon and essential for normal functioning of body. It is important for metabolism of fats and carbohydrates and helps to repair and maintenance of various tissues. Vitamins are natural substances found in plants and animals and known as Essential nutrients for human beings. Human body uses these substances to stay healthy and support its many functions. There are two types of vitamins: water-soluble and fat-soluble. Deficiencies of vitamins and minerals may be caused by disease states such as mal absorption.
9. At its most basic level, food is simply your body's source of energy and is what enables you to move. But different kinds of foods play different roles and can help give you

quick bursts or sustained periods of energy, assist your muscles in post-training recovery and spur muscular growth and strength.

a. **Increased Energy-**Digestion is the process by which your body converts food into energy. Foods have different, ratings, which indicate how quickly your body uses the energy from those foods. High-GI foods are digested quickly and provide instant energy, while low-GI foods give you a steady supply of energy and keep your blood glucose levels even.
b. **Muscle Recovery-** Food provides energy but can also help your body recover afterward. As personal trainer and exercise expert Chris Zaino explains, high carbohydrates to help your body recover. As he explains, high carbohydrates may quickly replenish muscle glycogen levels that have been depleted during training. Zaino suggests that eating within 15 minutes after an exercise session may aid in recovery. Effective recovery can lead to improved performance in the future.
c. **Increased Strength-**Upper- and lower-body muscle strength can dramatically improve your sports performance. And while carbohydrates give you energy, protein may increase strength. This is because protein contains amino acids, which your body uses to build muscle. In one study, increasing protein intake by 40 grams daily during an exercise program resulted in significant increases in strength compared to the exercise program combined with increased carbohydrate consumption.
d. **Protein intake** - must be met in order to maintain body weight, replenish glycogen stores, and provide adequate protein for building and repairing tissue.
e. **Fat intake** should be adequate to provide essential fatty acids and fat-soluble vitamins, as well as to help provide adequate energy for weight maintenance. Overall, diets should provide moderate amounts of energy from fat (20-25% of energy)
f. **Body weight and composition** can affect exercise performance, but should not be used as the sole criterion for sports performance. Consuming adequate food and fluid before, during, and after exercise can help maintain blood glucose levels during exercise, maximize exercise performance, and improve recovery time.
g. Athletes should be **well hydrated** before beginning exercise; they should also drink enough fluid during and after exercise to balance fluid losses.
h. Athletes will not need **vitamin-and-mineral supplements** if adequate energy to

maintain body weight is consumed from a variety of foods.

10. **The energy requirement of an athlete depends on:**
    1. Quality Carbohydrates, fats, proteins, vitamins, minerals, and fluids.
    2. Quantity Calories according to the sport.
    3. Variety Different types of food.
    4. Portability proper cooking.
    5. Acceptability of Nutrients To suit different customs habits and tastes.

    The quality of a sports diet depends on the correct proportion of carbohydrates, fats, proteins, minerals, and salts etc, which constitute the main nutrients of diet.

Functions of different elements of diet are:

1. Carbohydrates are helpful in increasing endurance.
2. Protein is necessary for the growth and development of various tissues of the body.
3. A minimum amount of fat is desirable for a long distance runner, high jumper or gymnast.
4. Diet prevents various diseases.
5. Vitamins are essential for good performance.
6. Vitamin-B complex helps in increasing the internal strength of our systems.
7. Vitamin-E is beneficial in the treatment of heart diseases.
8. Diet maintains a healthy weight.
9. Diet provides stress relief.
10. Diet maintains normal body functions and proper blood sugar levels.
11. Diet gives a positive psychological feeling.
12. Diet provides enough glycogen storage.
13. Proteins are necessary for the growth and development of various tissues of the body.
14. Minerals deficiency can decrease performance, especially during exercises in the hot climate.

A normal person needs around 2100 – 2800 calories per day. An athlete may need up to 5000 to 7000 calories per day. At training or competition time, the best food is to take in a small amount of non-carbonated fruits, juices or non-carbonated soft drinks. Eating Diet Before Performance We should eat suitable foods for breakfast like cereals, porridge, bread or toast, fruit juice, boiled rice, potatoes, biscuits etc.