

Health & Hygiene
Multidisciplinary course
B.A/B.Com, Second Year/Semester-III

SHORT QUESTION & ANSWERS

1. What is Balanced Diet?

- **Definition:** A balanced diet includes a variety of foods in the right proportions, providing all necessary nutrients in adequate amounts for maintaining health.
- **Key Nutrients in a Balanced Diet:**
 - **Carbohydrates:** Provide energy.
 - **Proteins:** Build and repair body tissues.
 - **Fats:** Essential for energy storage, brain function, and absorbing certain vitamins.
 - **Vitamins and Minerals:** Regulate body processes and protect against illnesses.

Water: Vital for hydration and maintaining bodily functions

2. Write a note the Basics of Meal Planning?

Meal planning should include the following:-

- **Variety:** Include different food groups (fruits, vegetables, grains, proteins, and dairy) in meals to get a range of nutrients.
 - **Portion Control:** Manage portion sizes to prevent overeating or under eating.
 - **Nutrient Balance:** Ensure meals contain a good balance of carbohydrates, proteins, fats, vitamins, and minerals.
 - **Meal Timing:** Plan meals at regular intervals to maintain energy levels and metabolism.
 - **Personal Preferences and Needs:** Consider age, health status, and personal taste when planning meals.
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3. Write a note on functions of Lipids (Fats)?

The important Functions of lipids include:

- **Energy Storage:** Lipids are a concentrated source of energy. They provide more energy than carbohydrates and proteins and store excess energy for later use.
- **Insulation and Protection:** Fats help insulate the body and protect vital organs like the heart, liver, and kidneys from physical damage.

- **Cell Structure:** Lipids are essential components of cell membranes, helping maintain the structure and function of cells.
- **Absorption of Vitamins:** Lipids help the body absorb fat-soluble vitamins (A, D, E, K) from food.
- **Hormone Production:** Fats are necessary for producing hormones that regulate bodily functions.

4. Write notes on Vitamin B-complex?

Vitamin B-Complex consists of B1, B2, B3, B6, B9, B12. It is a water soluble vitamin.

Functions of Vitamin B include:-

- Helps in energy production.
- Supports brain function and red blood cell formation.
- Essential for nerve function.

Food Sources: Whole grains, meat, fish, eggs, dairy, legumes, and leafy greens.

Effects of Deficiency:

- Fatigue, weakness.
 - Anemia (low red blood cells).
 - Nerve damage and confusion .
 - Birth defects.
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5. What are Determinants of Health?

Determinants of health are factors that influence an individual's health status. They include:

- **Biological Factors:**
 - Genetics, age, gender.
 - Inherited conditions or predispositions to certain diseases.
 - **Lifestyle Choices:**
 - Diet, physical activity, sleep, smoking, alcohol, and drug use.
 - Positive choices improve health; negative ones increase the risk of diseases.
 - **Social and Economic Factors:**
 - Education, income, employment, and social support networks.
 - People with higher education and income tend to have better health.
 - **Environment:**
 - Clean air, water, safe housing, and access to healthcare.
 - Living in polluted or unsafe environments increases health risks.
 - **Healthcare Access:**
 - Availability of medical care, vaccinations, and health services.
 - Timely access to healthcare can prevent or treat illnesses early.
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6. **Briefly explain the function and role of Indian Council of Medical Research (ICMR) ?**

Indian Council of Medical Research (ICMR)

- **Function:** ICMR is the apex body for biomedical research in India. It supports scientific studies and innovations in healthcare, including the areas of nutrition, communicable and non-communicable diseases, and public health.
 - **Role:** Provides scientific evidence for health policies, conducts disease surveillance, and supports new treatments and medical technologies.
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7. **Briefly explain the function and role of World Health Organization (WHO) – India?**

- **Function:** WHO-India works with the Government of India to improve public health outcomes through policy development, disease prevention, and health education.
 - **Role:** Supports vaccination campaigns, monitors disease outbreaks, and advises on healthcare strategies. It also promotes health standards and coordinates international health initiatives in India.
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8. **Briefly mention the WASH (Water, Sanitation, and Hygiene) Programme in India**

Definition: The WASH program focuses on improving water supply, sanitation facilities, and hygiene practices to enhance public health and prevent disease.

Key Components of the WASH Programme:

1. **Water:**
 - **Access to Safe Water:** access to clean and safe drinking water.
 - **Water Quality:** Regular testing and treatment of water
 - **Water Supply Infrastructure:** wells, pipelines, and storage facilities.
2. **Sanitation:**
 - **Toilets and Latrines:** access to toilets and latrines to improve sanitation.
 - **Waste Management**
3. **Hygiene:**
 - **Handwashing Campaigns.**
 - **Hygiene Education.**

9. Briefly explain Swachh Bharat Mission (SBM)

Swachh Bharat Abhiyan (Clean India Mission)

- **Launched:** October 2, 2014, by Prime Minister Narendra Modi.
- **Objective:** To make India open defecation-free (ODF) and improve sanitation and cleanliness across urban and rural areas by 2019, the 150th birth anniversary of Mahatma Gandhi.

Key Components

1. **Sanitation Infrastructure:**
 - Building household and community toilets, particularly in rural and urban slums.
2. **Public Awareness:**
 - Involvement of public figures and media to promote a clean India.
3. **Focus Areas:**
 - Eliminating open defecation.
 - Improving solid waste management (waste segregation, recycling).
 - Raising awareness on cleanliness and hygiene practices (e.g., handwashing).
 - Educating about waste disposal and reducing single-use plastics.
4. **Achievements:**
 - Declared India open-defecation-free in October 2019.
 - Millions of toilets built in rural and urban areas.

10. Briefly mention about “No More Tension”

An app aimed at mental health and well-being.

Features:

- **Mental Health Resources:** Offers resources and tools for managing stress and mental health issues.
- **Counseling Services:** Provides access to counseling and support services for individuals experiencing mental health challenges.
- **Self-Help Tools:** Includes self-help tools and techniques for stress management and emotional well-being.

Objective: To support mental health by providing resources, counseling, and tools to manage stress and mental health issues.

ESSAY QUESTION & ANSWERS

1. Q. Explain the functions, dietary sources and effects of deficiency of carbohydrates.

A. Carbohydrates –functions, dietary sources, effects of deficiency.

Functions:

1. **Primary Source of Energy:** Carbohydrates are the body's main fuel, providing energy for physical activities and daily tasks.
2. **Brain Function:** The brain relies on glucose (a type of carbohydrate) for proper functioning.
3. **Saves Protein:** Carbohydrates prevent the body from breaking down proteins for energy, allowing proteins to be used for muscle building and repair.
4. **Digestive Health:** Fibre, a type of carbohydrate, helps maintain digestive health and prevent constipation.

Dietary Sources:

1. **Grains:** Bread, rice, pasta, oats, and cereals.
2. **Vegetables:** Potatoes, corn, peas, and root vegetables like sweet potatoes.
3. **Fruits:** Bananas, apples, berries, and oranges.
4. **Legumes:** Beans, lentils, and chickpeas.
5. **Dairy Products:** Milk and yogurt (contain lactose, a natural sugar).
6. **Sugars:** Table sugar, honey, and sugary snacks (though these should be limited for health).

Effects of Carbohydrates Deficiency:

1. **Low Energy:** Without enough carbohydrates, the body struggles to produce energy, leading to fatigue and weakness.
 2. **Difficulty Concentrating:** Since the brain needs glucose, a lack of carbohydrates can cause poor concentration and memory problems.
 3. **Muscle Breakdown:** The body may start breaking down proteins (muscles) for energy, leading to muscle loss.
 4. **Digestive Issues:** A lack of fiber can cause constipation and other digestive problems.
 5. **Hypoglycemia (Low Blood Sugar):** Insufficient carbohydrates can lead to low blood sugar levels, causing dizziness, irritability, and shakiness.
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2. Discuss importance, functions, sources and deficiency of water.

A. Water is essential for life and plays a crucial role in the body's overall health and functioning. It makes up a large part of our body (about 60%) and is vital for many processes.

Functions of Water:

1. **Regulates Body Temperature:** Water helps maintain a stable body temperature through sweating and breathing.
2. **Aids Digestion:** Water helps break down food, absorb nutrients, and prevent constipation.
3. **Transports Nutrients and Oxygen:** Water carries nutrients and oxygen to cells and removes waste products from the body.
4. **Protects Organs and Tissues:** Water cushions organs and tissues, protecting them from damage.
5. **Maintains Fluid Balance:** Water helps balance body fluids and supports kidney function by flushing out toxins.

Sources of Water:

1. **Drinking Water:** Plain water is the best source of hydration.
2. **Beverages:** Milk, fruit juices, tea, and coffee also contribute to water intake.
3. **Fruits and Vegetables:** Many fruits and vegetables have high water content, such as cucumbers, watermelon, oranges, and tomatoes.
4. **Soups and Broths:** Liquid-based foods like soups provide additional hydration.

Effects of Water Deficiency (Dehydration):

1. **Mild Dehydration:**
 - Thirst and dry mouth.
 - Fatigue and dizziness.
 - Dark yellow urine and less frequent urination.
 2. **Moderate to Severe Dehydration:**
 - In severe cases it can lead to heatstroke, kidney damage or even death.
 - Headaches and confusion.
 - Rapid heartbeat and breathing.
 - Dry skin and sunken eyes.
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3. Q.Explain briefly NRHM & NUHM.

National Health Mission (NHM)

The **National Health Mission (NHM)** was launched by the Government of India . It aims to provide accessible, affordable, and quality healthcare services to all, particularly focusing on rural and urban poor populations. NHM includes two major components:

- **National Rural Health Mission (NRHM)**
- **National Urban Health Mission (NUHM).**

National Rural Health Mission (NRHM) Framework -Launched in: 2005.

Goal: Improve healthcare delivery in rural areas, especially for women, children, and the elderly.

Key Features of NRHM:

- **Strengthening Primary Healthcare:**
 - Establishes Primary Health Centres (PHCs), and Community Health Centres (CHCs), medical staff, and equipment.
 - Focus on maternal, child health, and immunization services.
- **Accredited Social Health Activist (ASHA):**
 - ASHAs are community health workers.
 - Provide basic healthcare, promote hygiene, facilitate immunizations, and encourage child deliveries (births in hospitals).
- **Janani Suraksha Yojana (JSY):**
 - It promotes safe motherhood by offering cash incentives to encourage pregnant women to deliver in hospitals .
- **Reproductive, Maternal, Newborn, Child, and Adolescent Health (RMNCH+A):**
 - Health of women and children through family planning, safe delivery, nutrition programs, and immunizations.
- **National Disease Control Programs:**
 - NRHM integrates programs to control communicable diseases like TB, malaria, leprosy, and HIV/AIDS .
- **Infrastructure Development:**
 - New health centres
 - ambulance services
 - Medicines and diagnostics.

National Urban Health Mission (NUHM) - Launched in: 2013.

Goal: Provide healthcare services to the urban poor.

Key Features of NUHM:

- **Targeting Urban Poor:**
 - NUHM focuses on people living in urban slums, street children, migrant workers.
 - **Urban Primary Health Centers (UPHCs):**
 - Establishes **Urban Primary Health Centers** , outpatient care, immunizations, maternal and child health services.
 - **Outreach and Community Participation:**
 - NUHM deploys **Urban ASHAs** to connect urban populations with health services.
 - **Focus on Non-Communicable Diseases (NCDs):**
 - NUHM focuses on early detection and management of non- communicable diseases like diabetes, hypertension, and heart disease .
 - **Healthcare Financing:**
 - building health centers, training health workers, and providing medicines and diagnostic services.
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4. Q. Define Hygiene and briefly explain Personal, Community, and Medical & Culinary Hygiene.

Hygiene refers to practices and conditions that help maintain health & prevent the spread of diseases. It involves cleanliness and sanitary practices.

Types of Hygiene

- **Personal hygiene**
- **Community hygiene**
- **Medical hygiene**
- **Culinary hygiene**

1. Personal Hygiene - Practices that individual perform to maintain their own health and cleanliness.

Key Practices:

- **Handwashing:** Regular washing of hands with soap and water, especially before eating and after using toilet.
- **Bathing:** Regularly cleaning the body with water and soap to remove dirt and sweat.
- **Oral Hygiene:** Brushing teeth twice a day to prevent dental problems.
- **Nail Care:** Keeping nails trimmed and clean to prevent infections.
- **Hair Care:** Regular washing and grooming to maintain scalp health and cleanliness.

Importance: Helps prevent infections, diseases, and promotes overall health and well-being.

2. Community Hygiene - Hygiene practices that involve the entire community to promote a healthy environment and prevent the spread of diseases.

Key Practices:

- **Waste Management:** Proper disposal and management of waste to prevent contamination and breeding of disease vectors.
- **Clean Drinking Water:** Ensuring access to safe and clean drinking water to prevent waterborne diseases.
- **Sanitation Facilities:** Providing and maintaining clean and functional toilets and sewage systems.
- **Public Health Campaigns:** Organizing community health education and awareness programs about hygiene and disease prevention.

Importance: Reduces the spread of diseases, promotes a healthy living environment, and improves quality of life in communities.

3. Medical Hygiene - Hygiene practices in Hospitals to prevent infections and safety of patients .

Key Practices:

- **Sterilization:** Sterilizing medical instruments and equipment to prevent infections.
- **Hand Hygiene:** Regular handwashing and use of hand sanitizers by doctors and nurses.
- **Personal Protective Equipment (PPE):** Wearing appropriate PPE, such as gloves, masks, and gowns, to protect against infections.
- **Disinfection:** Cleaning and disinfecting surfaces and equipment in hospitals.

Importance: Prevents healthcare-associated infections, ensures patient safety, and maintains a clean and sterile environment in medical settings.

4. Culinary Hygiene - Hygiene practices related to food preparation and handling to ensure food safety and prevent foodborne illnesses.

Key Practices:

- **Food Storage:** Properly storing food at the correct temperatures to prevent spoilage and contamination.
- **Cleanliness:** Maintaining cleanliness in the kitchen, including washing hands, surfaces, and utensils regularly.
- **Cooking Temperatures:** Cooking food to the recommended temperatures to kill harmful bacteria and pathogens.
- **Cross-Contamination Prevention:** Preventing the mixing of raw and cooked foods to avoid the spread of bacteria.

Importance: Ensures food safety, prevents foodborne illnesses, and promotes overall health through proper food handling practices.