



CBSE Class X Health Care (97)



Time Allowed :2 Hours	Maximum Marks :50	Total Questions :21
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General Instructions

Read the following instructions very carefully and strictly follow them:

1. Please read the instructions carefully.
2. This Question Paper consists of 21 questions in two sections : Section A & Section B.
3. Section A has Objective type questions whereas Section B contains Subjective type questions.
4. Out of the given ($5 + 16 = 21$) questions, a candidate has to answer ($5 + 10 = 15$) questions in the allotted (maximum) time of 2 hours.
5. All questions of a particular section must be attempted in the correct order.
6. **Section A : Objective Type Questions (24 Marks)**
 - (a) This section has 05 questions.
 - (b) Marks allotted are mentioned against each question/part.
 - (c) There is no negative marking.
 - (d) Do as per the instructions given.
7. **Section B : Subjective Type Questions (26 Marks)**
 - (a) This section has 16 questions.
 - (b) A candidate has to do 10 questions.
 - (c) Do as per the instructions given.
 - (d) Marks allotted are mentioned against each question/part.

Section - A

Obejctive Type Questions

1. Answer any 4 out of the given 6 questions on Employability skills. $4 \times 1 = 4$

Question (i): The ____ conveys the message to the sender in the form of feedback to complete the communication cycle.

- (a) sender
- (b) environment
- (c) receiver
- (d) circumstances

Correct Answer: (c) receiver

Solution:

The **receiver** conveys the message back to the sender in the form of **feedback** to complete the communication cycle. The communication process includes the following steps:

1. **Sender:** Initiates the message.
2. **Message:** The information or content being communicated.
3. **Medium:** The channel through which the message is sent.
4. **Receiver:** The individual who interprets the message.
5. **Feedback:** The response or reaction provided by the receiver to confirm understanding.

Feedback is essential because it closes the communication loop and ensures the message has been successfully understood.

💡 Quick Tip

The communication cycle involves a sender, message, receiver, and feedback. Feedback helps confirm understanding and improve communication effectiveness.

Question (ii): Which of the following is not an important activity to reduce stress?

- (a) Physical exercise
- (b) Feeling worried
- (c) Healthy diet
- (d) Time management

Correct Answer: (b) Feeling worried

Solution:

Among the given options, **feeling worried** is not an activity that reduces stress. In contrast:

- **Physical exercise:** Improves mood and reduces stress by releasing endorphins.
- **Healthy diet:** Supports overall well-being and reduces stress levels.
- **Time management:** Helps in organizing tasks, avoiding last-minute pressure, and reducing stress.

Feeling worried increases stress levels and hinders productivity.

💡 Quick Tip

To reduce stress effectively, focus on physical activity, maintaining a healthy diet, and managing time wisely. Avoid overthinking and negative thoughts.

Question (iii): ____ individuals have an inner urge to do something, achieve their goals without any external pressure.



- (a) Self regulated
- (b) Self motivated
- (c) Self reliance
- (d) Self confident

Correct Answer: (b) Self motivated

Solution:

Self-motivated individuals are driven by an internal desire to achieve their goals without any external influence. They:

- Take initiative to start and complete tasks.
- Stay focused on their objectives despite challenges.
- Require no external rewards or pressure to stay committed.

Self-motivation is essential for personal and professional success, as it fosters consistency and determination.

💡 Quick Tip

Self-motivation is the key to achieving long-term success as it drives individuals to take consistent actions without external influence.

Question (iv): When the information is stored or recorded on electronic devices, it refers to ____.

- (a) Raw form
- (b) Paper form
- (c) Digital form
- (d) Paper back form

Correct Answer: (c) Digital form

Solution:

Information stored or recorded on electronic devices is referred to as **digital form**. It includes:

- **Digital files:** Documents, images, videos, or audio saved on computers, smartphones, or cloud systems.
- **Electronic databases:** Structured digital storage for large amounts of information.

Digital information is easier to store, retrieve, and share compared to physical or paper-based formats.

💡 Quick Tip

Digital storage is efficient, secure, and highly accessible, making it the most preferred method of information management today.



Question (v): The term ‘Entrepreneur’ has been derived from the word ‘Enturon-dre,’ which means -----.

- (a) to undertake
- (b) to give
- (c) to decide
- (d) to choose

Correct Answer: (a) to undertake

Solution:

The word ‘**Entrepreneur**’ originates from the French word ‘**Enturondre**,’ which means “**to undertake**”. An entrepreneur is an individual who:

- Takes the initiative to start a business or project.
- Assumes risks and responsibilities for the enterprise.
- Brings innovative ideas and solutions to the market.

Entrepreneurs play a vital role in driving economic development by creating jobs and fostering innovation.

💡 Quick Tip

Entrepreneurs undertake challenges and risks to transform innovative ideas into successful businesses.

Question (vi): Which activity does not help to conserve the environment?

- (a) Organic farming
- (b) Vermi-composting
- (c) Use of poly-bags
- (d) Rain-water harvesting

Correct Answer: (c) Use of poly-bags

Solution:

The **use of poly-bags** does not help conserve the environment because:

- Poly-bags are non-biodegradable, meaning they do not decompose easily and remain in the environment for hundreds of years.
- Improper disposal of poly-bags leads to soil and water pollution.
- Poly-bags are harmful to wildlife as animals may accidentally ingest them.

In contrast:

- **Organic farming:** Promotes sustainable agriculture without using harmful chemicals.



- **Vermi-composting:** Converts organic waste into nutrient-rich compost, reducing landfill waste.
- **Rain-water harvesting:** Helps conserve water by collecting and storing rainwater for future use.

💡 Quick Tip

Avoid using poly-bags. Opt for biodegradable alternatives like cloth or paper bags to protect the environment.

2. Answer any 5 out of the given 6 questions.

5 × 1 = 5

Question (i): Doctors in ____ department take care of children.

- (a) Orthopaedic
- (b) Paediatric
- (c) Cardiology
- (d) Gynaecology

Correct Answer: (b) Paediatric

Solution:

Doctors in the **Paediatric** department specialize in the medical care of infants, children, and adolescents. Paediatrics focuses on:

- Diagnosing and treating diseases in children.
- Ensuring healthy growth and development.
- Providing immunization, preventive care, and nutrition guidance.

Other Departments:

- **Orthopaedic:** Treats bone and joint disorders.
- **Cardiology:** Deals with heart-related issues.
- **Gynaecology:** Focuses on the female reproductive system.

💡 Quick Tip

Paediatrics is a specialized medical branch that ensures the health and well-being of children from birth to adolescence.

Question (ii): Which is not a health promotive function of General Duty Assistant (GDA)?

- (a) Improving health.
- (b) Health education.



- (c) Directed against particular disease.
- (d) Strengthen the host by giving nutritional support.

Correct Answer: (c) Directed against particular disease.

Solution:

The **General Duty Assistant (GDA)** primarily performs **health promotive** functions such as:

- **Improving health:** Encouraging healthy habits and lifestyle changes.
- **Health education:** Educating patients about hygiene, nutrition, and preventive care.
- **Strengthening the host:** Supporting recovery through proper nutrition and care.

However, “**directed against particular disease**” involves curative functions like diagnosing and treating diseases, which is beyond the scope of a GDA’s promotive role.

💡 Quick Tip

General Duty Assistants focus on health promotion, patient care, and support, not on curative functions like diagnosing or treating diseases.

Question (iii): The bed-strength of community health centre is:

- (a) 50 – 200
- (b) 30 – 50
- (c) 6 – 10
- (d) 200 – 300

Correct Answer: (a) 50 – 200

Solution:

The **bed-strength** of a community health centre (CHC) typically ranges between **50 to 200 beds**. Community health centres serve as referral units for primary health centres (PHCs) and provide secondary-level healthcare services.

Features of CHCs:

- They are equipped with basic diagnostic, surgical, and obstetric care facilities.
- They cater to a population of approximately 80,000 to 1,20,000 people.
- CHCs serve as a bridge between primary and tertiary healthcare services.

💡 Quick Tip

Community health centres play a critical role in rural healthcare by providing essential medical services and acting as referral centres.



Question (iv): Sippy's diet is recommended in which pathological condition?

- (a) Peptic ulcer
- (b) Malaria
- (c) Flu
- (d) T.B.

Correct Answer: (a) Peptic ulcer

Solution:

Sippy's diet is a dietary regimen used for managing **peptic ulcers**. It involves:

- Frequent small meals containing bland, non-irritating foods.
- Inclusion of milk, cream, eggs, and soft foods to neutralize stomach acid.
- Avoiding spicy, acidic, and fried foods that aggravate the ulcer.

This diet provides relief by minimizing acid secretion and reducing irritation to the stomach lining.

💡 Quick Tip

Sippy's diet helps soothe peptic ulcers by neutralizing stomach acid and promoting healing of the stomach lining.

Question (v): Tachycardia is the term used for

- (a) Increased respiration
- (b) Increased pulse rate
- (c) High B.P.
- (d) Decreased respiration

Correct Answer: (b) Increased pulse rate

Solution:

Tachycardia refers to an abnormally **increased pulse rate**, typically over **100 beats per minute** in adults. It is caused by:

- Physical exertion or stress.
- Fever, dehydration, or electrolyte imbalances.
- Heart conditions like arrhythmia or coronary artery disease.

Significance: Monitoring pulse rate is essential in identifying tachycardia and its underlying causes.

💡 Quick Tip

Tachycardia indicates a faster-than-normal heart rate, often a response to stress, fever, or underlying medical conditions.



Question (vi): One of the complications in a bed-ridden patient is ____.

- (a) Foot drop
- (b) Fever
- (c) Vomiting
- (d) Headache

Correct Answer: (a) Foot drop

Solution:

Foot drop is a complication that occurs in bed-ridden patients due to:

- Prolonged immobility leading to muscle weakness or nerve damage.
- Lack of movement causing the foot to drag while walking.

Prevention:

- Regular physiotherapy and exercises.
- Using foot splints to maintain proper foot positioning.

💡 Quick Tip

Foot drop is a common complication in immobile patients. Regular movement and physiotherapy are essential for prevention.

3. Answer any 5 out of the given 6 questions.

5 × 1 = 5

Question (i): Fowler's position is contraindicated in ____.

- (a) Spine surgery
- (b) Neck surgery
- (c) Dyspnoea
- (d) Abdominal surgery

Correct Answer: (d) Abdominal surgery

Solution:

Fowler's position involves sitting at a 45-60 degree angle, commonly used to improve breathing and comfort in patients. However, it is **contraindicated** in **abdominal surgery** because:

- It increases intra-abdominal pressure, leading to discomfort.
- It can affect the healing of abdominal incisions.
- Flat positioning is generally preferred post-abdominal surgery for proper recovery.



💡 Quick Tip

Fowler's position is ideal for respiratory distress but avoided in conditions that require abdominal relaxation post-surgery.

Question (ii): Name the disease which occurs in humans through the saliva of infected animals through bite.

- (a) Small pox
- (b) Rabies
- (c) Hepatitis B
- (d) AIDS

Correct Answer: (b) Rabies

Solution:

Rabies is a viral disease that spreads through the **saliva** of infected animals (e.g., dogs, bats) through bites or scratches. Key points include:

- Caused by the **Rabies virus** (Lyssavirus).
- Affects the central nervous system, leading to encephalitis (brain inflammation).
- Fatal if untreated; immediate post-exposure prophylaxis (PEP) is required.

💡 Quick Tip

To prevent rabies, avoid contact with stray animals and ensure timely vaccination after bites.

Question (iii): An acute contagious disease caused by virus occurring in children causing red spots on skin, fever and inflammation of air passages is called ____.

- (a) Diphtheria
- (b) Hepatitis A
- (c) Measles
- (d) Chickenpox

Correct Answer: (c) Measles

Solution:

Measles is a highly contagious viral disease caused by the **Measles virus** (paramyxovirus). It primarily affects children and causes:

- **Red spots on skin:** A characteristic rash appears after initial symptoms.
- **Fever and cough:** Accompanied by inflammation of air passages.
- **Koplik's spots:** Small white spots inside the mouth, a diagnostic sign of measles.



Vaccination (MMR vaccine) is the best preventive measure.

💡 Quick Tip

Measles is preventable through vaccination. Ensure children receive timely immunization to avoid infection.

Question (iv): Give an example of Halogen used in hospitals for disinfection:

- (a) Chlorine
- (b) Phenol
- (c) Alcohol
- (d) Formalin

Correct Answer: (a) Chlorine

Solution:

Chlorine is a halogen commonly used in hospitals for disinfection. Key uses include:

- Chlorine compounds, like sodium hypochlorite (bleach), are used to disinfect surfaces and equipment.
- It effectively kills bacteria, viruses, and fungi.
- Chlorine is also used for water purification in hospitals to prevent the spread of waterborne diseases.

Other options:

- **Phenol:** An antiseptic but not a halogen.
- **Alcohol:** A disinfectant but not a halogen.
- **Formalin:** Used for preservation, not as a primary halogen disinfectant.

💡 Quick Tip

Chlorine is widely used for hospital disinfection due to its strong germicidal properties.

Question (v): The hazards caused due to violence, stress, conflicts at workplace are examples of ____ hazards.

- (a) Physical
- (b) Ergonomic
- (c) Psychosocial
- (d) Biological

Correct Answer: (c) Psychosocial



Solution:

Psychosocial hazards refer to workplace factors that cause stress, violence, and conflicts, leading to mental and emotional strain. These hazards include:

- Workplace bullying, harassment, or discrimination.
- Heavy workload and unrealistic expectations.
- Lack of support from colleagues or supervisors.
- Poor work-life balance and prolonged working hours.

Psychosocial hazards affect mental health, reduce productivity, and can lead to conditions like anxiety, depression, and burnout.

💡 Quick Tip

Employers can address psychosocial hazards by fostering a positive workplace culture, providing support systems, and promoting mental health awareness.

Question (vi): The range of high fever is ____.

- (a) 95° F – 98° F
- (b) 98.4° F – 100° F
- (c) 104° F & above
- (d) 101° F – 103° F

Correct Answer: (d) 101° F – 103° F

Solution:

High fever is typically defined as a body temperature ranging between **101° F to 103° F**. Important classifications of fever include:

- **Normal body temperature:** 98.4° F (37° C).
- **Low-grade fever:** 99° F to 100.9° F.
- **High fever:** 101° F to 103° F.
- **Hyperpyrexia:** 104° F and above, indicating a medical emergency.

High fever is often caused by infections, inflammation, or other illnesses. It is important to monitor fever and seek medical advice if it persists or worsens.

💡 Quick Tip

High fever (101° F – 103° F) signals the body's immune response. Drink plenty of fluids, rest, and consult a doctor if the temperature remains high.



4. Answer any 5 out of the given 6 questions.

5 × 1 = 5

Question (i): Name the mechanical devices used to immobilize and protect a part of the body in case of fracture.

- (a) Sling
- (b) Splint
- (c) Tourniquet
- (d) Roller Bandage

Correct Answer: (b) Splint

Solution:

A **splint** is a mechanical device used to immobilize and protect a part of the body, especially in case of fractures or injuries. It helps to:

- Prevent further injury or movement.
- Provide support to the fractured or injured area.
- Reduce pain by restricting unnecessary motion.

Other options:

- **Sling:** Supports the arm or shoulder after an injury.
- **Tourniquet:** Controls severe bleeding.
- **Roller Bandage:** Provides compression and support to wounds.

💡 Quick Tip

Splints are essential in first aid to immobilize fractured or injured bones and prevent further damage.

Question (ii): Metered dose inhalers are used in which ailment?

- (a) Asthma
- (b) Typhoid
- (c) Fever
- (d) Malaria

Correct Answer: (a) Asthma

Solution:

Metered dose inhalers (MDIs) are medical devices primarily used to treat **asthma**. They deliver a specific amount of medication in aerosol form to the lungs, helping to:

- Open airways and reduce inflammation.
- Provide quick relief from asthma symptoms such as wheezing and breathlessness.



MDIs are also used for other respiratory conditions like chronic obstructive pulmonary disease (COPD).

💡 Quick Tip

MDIs ensure accurate delivery of medication directly to the lungs, making them effective for managing asthma.

Question (iii): Study of visceral organs is called ____.

- (a) Myology
- (b) Arthrology
- (c) Neurology
- (d) Splanchnology

Correct Answer: (d) Splanchnology

Solution:

Splanchnology is the branch of anatomy that focuses on the study of **visceral organs**, which include:

- Digestive organs (stomach, intestines, liver).
- Respiratory organs (lungs).
- Urogenital organs (kidneys, bladder).

Other options:

- **Myology:** Study of muscles.
- **Arthrology:** Study of joints.
- **Neurology:** Study of the nervous system.

💡 Quick Tip

Splanchnology helps understand the structure and function of internal organs critical for survival.

Question (iv): The tissue which joins other tissues of the body together, supports the body, and protects underlying organs is called ____.

- (a) Epithelial tissue
- (b) Connective tissue
- (c) Adipose tissue
- (d) Muscular tissue

Correct Answer: (b) Connective tissue



Solution:

Connective tissue joins other tissues, supports the body, and protects underlying organs. Key features include:

- Provides structural support (e.g., bones, cartilage).
- Stores energy (adipose tissue).
- Transports substances (blood).

Other options:

- **Epithelial tissue:** Forms linings and covers body surfaces.
- **Adipose tissue:** A type of connective tissue that stores fat.
- **Muscular tissue:** Responsible for movement.

💡 Quick Tip

Connective tissue is essential for providing structure, support, and protection to the body.

Question (v): Duodenum, Jejunum, and Ileum are parts of which portion of the digestive system?

- (a) Small Intestine
- (b) Large Intestine
- (c) Sigmoid Colon
- (d) Lower G.I. tract

Correct Answer: (a) Small Intestine

Solution:

The **small intestine** consists of three parts:

- **Duodenum:** The first section that receives partially digested food (chyme) from the stomach.
- **Jejunum:** The middle section where most nutrient absorption occurs.
- **Ileum:** The last section that absorbs vitamin B12, bile salts, and remaining nutrients before passing contents to the large intestine.

The small intestine plays a critical role in digestion and absorption of nutrients.

💡 Quick Tip

The small intestine is the longest part of the digestive system and is essential for nutrient absorption.



Question (vi): The human skeleton is made up of ____ bones.

- (a) 210
- (b) 206
- (c) 204
- (d) 209

Correct Answer: (b) 206

Solution:

The **human skeleton** is made up of **206 bones** in adults. It is categorized into two main parts:

- **Axial Skeleton (80 bones):** Includes the skull, vertebral column, and rib cage.
- **Appendicular Skeleton (126 bones):** Includes the limbs, shoulder girdle, and pelvic girdle.

Fun Fact: At birth, the human body has approximately 270 bones, but some fuse together as the body matures.

💡 Quick Tip

The adult human skeleton contains 206 bones, providing structure, protection, and support for the body.

5. Answer any 5 out of the given 6 questions.

5 × 1 = 5

Question (i): Deficiency of Thiamine (Vitamin B₁) can cause ____.

- (a) Anaemia
- (b) Beriberi
- (c) Night blindness
- (d) Pellagra

Correct Answer: (b) Beriberi

Solution:

Thiamine (Vitamin B₁) deficiency causes **Beriberi**, a disease that affects the nervous system and cardiovascular system. It is classified into two types:

- **Dry Beriberi:** Affects the nervous system, leading to muscle weakness, nerve damage, and paralysis.
- **Wet Beriberi:** Affects the cardiovascular system, leading to heart failure and edema.

Other options:

- **Anaemia:** Caused by iron or folic acid deficiency.
- **Night blindness:** Caused by Vitamin A deficiency.



- **Pellagra:** Caused by Niacin (Vitamin B₃) deficiency.

💡 Quick Tip

Include thiamine-rich foods like whole grains, nuts, and beans to prevent Beriberi.

Question (ii): Write down the full form of EMS.

- (a) Emergency Medical Service
- (b) Elective Medical Service
- (c) Early Medical Service
- (d) Every Medical Service

Correct Answer: (a) Emergency Medical Service

Solution:

Emergency Medical Service (EMS) refers to a system that provides immediate medical care and transportation for individuals experiencing life-threatening emergencies. Key components include:

- Ambulance services for quick transportation.
- Paramedics and emergency medical technicians (EMTs) for on-site care.
- Emergency response systems (e.g., 911 or 112) for urgent assistance.

💡 Quick Tip

EMS plays a critical role in saving lives by providing timely and efficient emergency care.

Question (iii): Which of the following is not a function of PR department?

- (a) Product publicity
- (b) Selling
- (c) Lobbying
- (d) Counselling

Correct Answer: (b) Selling

Solution:

The **Public Relations (PR) department** focuses on maintaining a positive public image and managing communications. Its functions include:

- **Product publicity:** Promoting awareness of products and services.
- **Lobbying:** Influencing public policy and decision-making.
- **Counselling:** Advising organizations on public image strategies.



Selling is not a PR function; it falls under the sales and marketing domain.

💡 Quick Tip

PR focuses on communication and image management, while selling involves direct revenue generation.

Question (iv): Press releases, sponsorships, special events, and web pages are part of ____.

- (a) Advertising
- (b) Marketing
- (c) Sale promotion
- (d) Public relations

Correct Answer: (d) Public relations

Solution:

Public relations (PR) involves managing an organization's communication with the public to build a positive image. Key PR activities include:

- Issuing press releases to share news and updates.
- Organizing sponsorships and special events to engage with stakeholders.
- Managing web pages and media coverage to promote the organization.

PR is a broader communication strategy compared to advertising or sales promotion.

💡 Quick Tip

Public relations enhances brand reputation through strategic communication and media management.

Question (v): When communicating with a patient, many times they cannot wait for the speaker to finish. This limits the information exchange. What should you do to avoid this situation?

- (a) Ask questions
- (b) Do not interrupt
- (c) Do not assume
- (d) Concentrate on the content

Correct Answer: (b) Do not interrupt

Solution:

To ensure effective communication, it is essential to **not interrupt** the speaker. This allows:

- Complete understanding of the patient's concerns or information.



- Building trust and rapport with the patient.
- Avoiding misunderstandings caused by incomplete information exchange.

Interrupting can disrupt the flow of communication and cause the patient to feel unheard or frustrated. Therefore, listening attentively and allowing the speaker to finish is crucial.

Other tips for effective communication:

- Ask clarifying questions if needed.
- Focus on the content without making assumptions.

💡 Quick Tip

Active listening, patience, and empathy are key to effective communication, especially in a healthcare setting.

Question (vi): ____ hazards, include acids, poisons, cleaning agents, etc., depend on the physical, chemical, and toxic properties of the chemical.

- (a) Radiation
- (b) Biological
- (c) Chemical
- (d) Ergonomic

Correct Answer: (c) Chemical

Solution:

Chemical hazards involve exposure to harmful chemicals such as acids, poisons, cleaning agents, and toxic substances. These hazards can cause:

- **Health effects:** Skin burns, respiratory issues, or poisoning.
- **Environmental effects:** Pollution of air, water, or soil.
- **Safety risks:** Fire or explosion when chemicals are mishandled.

Other types of hazards:

- **Radiation hazards:** Caused by exposure to ionizing or non-ionizing radiation.
- **Biological hazards:** Caused by viruses, bacteria, and fungi.
- **Ergonomic hazards:** Related to poor workplace design leading to strain or injury.

💡 Quick Tip

Always use appropriate protective equipment and handle chemicals with care to minimize chemical hazards.

Section - B

Subjective Type Questions

Answer any 3 out of the given 5 questions on Employability skills. Answer each question in 20-30 words. $3 \times 2 = 6$

Question 6: How active listening is important in communication?

Solution:

Active listening is a critical skill in communication as it involves fully concentrating, understanding, responding, and remembering what the speaker is saying. Its importance includes:

- **Improves Understanding:** Ensures the listener accurately interprets the speaker's message.
- **Builds Trust:** Makes the speaker feel heard and respected, building strong relationships.
- **Reduces Miscommunication:** Clarifies doubts and prevents misunderstandings.
- **Enhances Problem-Solving:** By understanding the issue clearly, appropriate solutions can be provided.

Active listening involves making eye contact, not interrupting, and providing feedback like summarizing or asking clarifying questions.

💡 Quick Tip

Active listening promotes better understanding and helps resolve conflicts effectively by fostering clear communication.

Question 7: Explain stress management in your own words.

Solution:

Stress management refers to techniques and strategies used to control and reduce the negative effects of stress. Key approaches include:

- **Time Management:** Prioritizing tasks and creating schedules to manage workload.
- **Relaxation Techniques:** Practicing meditation, deep breathing, or yoga.
- **Healthy Lifestyle:** Exercising regularly, maintaining a balanced diet, and getting adequate sleep.
- **Positive Attitude:** Focusing on solutions rather than problems.

Effective stress management enhances productivity, improves health, and maintains emotional well-being.



💡 Quick Tip

Managing stress effectively leads to a healthier, balanced, and more fulfilling life.

Question 8: Explain CPU (Central Processing Unit).

Solution:

The **Central Processing Unit (CPU)** is the brain of the computer. It performs all the arithmetic, logical, and control operations. The CPU consists of three main parts:

- **Arithmetic Logic Unit (ALU):** Performs mathematical calculations and logical operations.
- **Control Unit (CU):** Directs the flow of data between the CPU, memory, and input/output devices.
- **Registers:** Store data temporarily for quick access during processing.

The CPU processes instructions from programs, manages data flow, and executes commands, enabling the computer to function.

💡 Quick Tip

The speed and efficiency of a computer depend on the CPU, often measured in GHz (gigahertz).

Question 9: Enumerate the positive impact of Entrepreneurship.

Solution:

Entrepreneurship has a significant positive impact on society and the economy:

- **Job Creation:** Entrepreneurs create employment opportunities for others.
- **Economic Growth:** Promotes innovation, increases productivity, and generates revenue.
- **Innovation:** Encourages the development of new ideas, products, and technologies.
- **Improves Standard of Living:** Provides better products and services to improve quality of life.

Entrepreneurship fosters creativity and drives progress in both local and global markets.

💡 Quick Tip

Entrepreneurs are the backbone of economic development, fostering innovation and creating jobs.



Question 10: What sustainable practices can be adopted at home & workplace?

Solution:

Sustainable practices aim to conserve resources and reduce environmental impact. Examples include:

- **At Home:**

- Reducing energy consumption by using LED lights and energy-efficient appliances.
- Recycling household waste like plastic, glass, and paper.
- Conserving water by fixing leaks and using low-flow fixtures.

- **At Workplace:**

- Implementing paperless offices by using digital documents.
- Encouraging carpooling or using public transportation.
- Installing renewable energy sources like solar panels.

Sustainability benefits the environment, reduces costs, and promotes a greener future.

💡 Quick Tip

Simple actions like saving energy and recycling can make a big difference in promoting sustainability.

Answer any 4 out of the given 6 questions in 20-30 words each.

$4 \times 2 = 8$

Question 11: Identify the department of hospital that provides the first interface of patient with medical service. Enumerate its scope.

Solution:

The department of a hospital that provides the **first interface of patient with medical service** is the **Outpatient Department (OPD)**.

Scope of OPD:

- **Initial Assessment:** OPD serves as the first point of contact where patients are assessed and diagnosed.
- **Referrals:** Patients are referred to specialized departments for advanced care.
- **Preventive Care:** OPD offers vaccinations, regular check-ups, and health education.
- **Treatment of Minor Ailments:** Common ailments are treated without hospitalization.
- **Follow-up Services:** Patients revisit for progress evaluation and continuation of treatment.

The OPD plays a critical role in providing accessible, affordable, and efficient healthcare services.



💡 Quick Tip

The OPD is the face of a hospital where patient interaction begins. Efficient OPD management improves overall patient satisfaction.

Question 12: Explain taking of an axillary temperature.

Solution:

Axillary temperature is the measurement of body temperature taken under the armpit. It is less invasive and widely used for infants and young children.

Steps to take axillary temperature:

1. Ensure the armpit is dry to get an accurate reading.
2. Place the thermometer under the patient's armpit, ensuring full contact with the skin.
3. Ask the patient to close their arm firmly over the thermometer.
4. Wait for the thermometer to beep (digital) or for 3-5 minutes (mercury thermometer).
5. Remove the thermometer and read the temperature.

The normal axillary temperature ranges between **97.7°F to 99.5°F (36.5°C to 37.5°C)**.

💡 Quick Tip

Always clean and disinfect the thermometer after use to prevent infections.

Question 13: What are the conditions which make the person ill?

Solution:

Several conditions contribute to making a person ill, including:

- **Poor Nutrition:** Lack of essential nutrients weakens the immune system.
- **Infections:** Bacterial, viral, or fungal infections can cause diseases.
- **Unhygienic Living Conditions:** Dirty environments increase the risk of diseases.
- **Stress and Mental Health Issues:** Chronic stress can lead to physical and psychological illnesses.
- **Genetic Factors:** Hereditary diseases like diabetes, heart disease, and cancers.
- **Lifestyle Habits:** Smoking, alcohol consumption, and lack of exercise contribute to illnesses.
- **Environmental Pollution:** Exposure to air, water, and soil pollution causes respiratory and other health issues.



Addressing these conditions through proper healthcare, hygiene, and lifestyle modifications can help prevent illnesses.

💡 Quick Tip

A balanced diet, regular exercise, and maintaining hygiene are key to staying healthy.

Question 14: How can you apply principles of first-aid?

Solution:

The principles of **first-aid** are crucial for providing immediate care to an injured or ill person until professional medical help arrives. Key principles include:

- **Preserve Life:** Ensure the person's safety and provide care to keep them alive.
- **Prevent Further Injury:** Remove the person from harm's way without causing additional injuries.
- **Promote Recovery:** Provide comfort, reassure the person, and administer appropriate first-aid measures.
- **Call for Help:** Immediately contact emergency services for professional assistance.
- **Assess the Situation:** Check for dangers, assess the level of consciousness, and identify injuries.

Following these principles ensures quick and efficient care during emergencies, which can save lives and reduce recovery time.

💡 Quick Tip

Remember the three P's of first-aid: **Preserve life, Prevent further harm, and Promote recovery.**

Question 15(a): Distinguish between Proximal and Distal.

Solution:

The terms **proximal** and **distal** are used to describe anatomical positions in relation to the body.

- **Proximal:** Refers to a structure closer to the point of origin or attachment.
Example: The elbow is proximal to the wrist.
- **Distal:** Refers to a structure farther from the point of origin or attachment.
Example: The fingers are distal to the wrist.

These terms are often used to describe the position of limbs or structures relative to the body's core.



Question 15(b): Distinguish between Superficial and Deep.

Solution:

The terms **superficial** and **deep** describe the relative position of structures in the body.

- **Superficial:** Refers to structures closer to the surface of the body.
Example: The skin is superficial to the muscles.
- **Deep:** Refers to structures farther from the surface of the body.
Example: The bones are deep to the muscles.

These terms help describe the location of injuries or body parts during medical examination.

Question 16: Write the clinical applications of computers in patient care.

Solution:

Computers play a significant role in improving efficiency and accuracy in patient care. Key clinical applications include:

- **Electronic Health Records (EHR):** Storing patient records, medical histories, and treatment plans digitally.
- **Medical Imaging:** Enhancing diagnostic imaging techniques such as MRI, CT scans, and X-rays.
- **Telemedicine:** Providing remote consultations and monitoring patients via video conferencing.
- **Patient Monitoring:** Using computers to track vital signs and medical parameters in real-time.
- **Medication Management:** Managing prescriptions, drug interactions, and medication schedules.
- **Surgical Assistance:** Assisting doctors with robotic surgeries and precision techniques.

Computers ensure accurate diagnosis, improved treatment outcomes, and better patient management.

💡 Quick Tip

Computers in healthcare reduce human errors, enhance efficiency, and ensure better patient outcomes.

Answer any 3 out of the given 5 questions in 50-80 words each.

$3 \times 4 = 12$

Question 17: Based on the objectives, describe the different types of hospitals.



Solution:

Hospitals are classified based on their objectives and the services they provide. The different types include:

- **General Hospitals:** Provide a wide range of services including emergency care, surgery, and general medicine.
- **Specialty Hospitals:** Focus on specific medical fields such as cardiology, oncology, or orthopedics.
- **Teaching Hospitals:** Associated with medical schools for training students and conducting research.
- **Rehabilitation Hospitals:** Provide care for patients recovering from surgeries, injuries, or chronic illnesses.
- **Government Hospitals:** Run by the government, offering affordable or free medical care.
- **Private Hospitals:** Owned by private organizations, offering specialized and premium healthcare services.

Each type of hospital serves specific purposes and caters to diverse healthcare needs.

💡 Quick Tip

Hospitals are classified based on their functions, ownership, and the type of care they provide.

Question 18: Explain the five steps involved in planning and implementation of care.

Solution:

The five steps in planning and implementing care are:

1. **Assessment:** Collect data about the patient's physical, emotional, and social condition.
2. **Diagnosis:** Identify the patient's health problems based on the assessment.
3. **Planning:** Set measurable goals for recovery and create a care plan.
4. **Implementation:** Carry out the planned care, including treatments, medications, and interventions.
5. **Evaluation:** Monitor the outcomes to determine if the goals are met or if changes are needed.

These steps ensure systematic and effective patient care.



💡 Quick Tip

The nursing process ensures consistent, high-quality care by using a step-by-step approach.

Question 19: Explain the process of transmission of infection.

Solution:

The transmission of infection occurs through the following steps:

1. **Infectious Agent:** The pathogen (bacteria, virus, fungus) that causes disease.
2. **Reservoir:** The source where the pathogen lives, such as humans, animals, or the environment.
3. **Mode of Transmission:** The way the pathogen spreads, including:
 - **Direct Contact:** Person-to-person transfer of pathogens.
 - **Indirect Contact:** Through contaminated objects or surfaces.
 - **Airborne Transmission:** Inhalation of infected droplets in the air.
4. **Portal of Entry:** The pathway for pathogens to enter the body, such as the respiratory system, broken skin, or mucous membranes.
5. **Susceptible Host:** Individuals with weak immune systems or underlying conditions.

Preventive measures like hand hygiene, vaccination, and infection control can break the chain of transmission.

💡 Quick Tip

Understanding the chain of infection helps prevent the spread of communicable diseases effectively.

Question 20: What first aid you will provide to a person who has met with an accident?

Solution:

The first aid for an accident victim involves the following steps:

1. **Ensure Safety:** Make sure the area is safe for you and the victim.
2. **Check Responsiveness:** Determine if the person is conscious and breathing.
3. **Control Bleeding:** Apply pressure on bleeding wounds using a clean cloth.
4. **Immobilize Injuries:** Avoid moving the person if spinal or limb injuries are suspected.
5. **Provide CPR:** If the person is unresponsive and not breathing, perform chest compressions and rescue breaths.



- **Removal of Waste:** Carries deoxygenated blood and waste products back to the lungs for exhalation.
- **Regulating Blood Pressure:** Maintains circulation and pressure in the body.

The heart plays a vital role in maintaining life by ensuring proper circulation of blood and oxygen.

💡 Quick Tip

The heart beats about 72 times per minute and pumps approximately 5 liters of blood per minute at rest.

