	INDIAN SCHOOL AL WADI AL KABIR	
CLASS: X	**DEPARTMENT: SCIENCE 2026 – 27** **SUBJECT: HEALTHCARE** **(SUBJECT CODE - 413)**	**DATE:** **11.11.2026**
WORKSHEET NO: 5 **With answers**	**UNIT 2 – BASIC FIRST AID & EMERGENCY MEDICAL RELIEF**	**NOTE:** **A4 FILE FORMAT**
NAME OF THE STUDENT:	**CLASS & SEC: X -A to X -I**	**ROLL NO:**

SECTION A: MULTIPLE CHOICE QUESTIONS

Select the single most appropriate option for each question.

1. What is the primary objective of administering First Aid before professional medical assistance arrives?

(a) To replace hospital treatment completely

(b) To preserve life, protect from further harm, and prevent the condition from worsening

(c) To prescribe long-term pharmacological drugs

(d) To perform invasive surgical procedures at the scene

2. In the initial assessment of an emergency victim, what does the diagnostic sequence 'A-B-C' stand for?

(a) Action, Breathing, Circulation

(b) Airway, Breathing, Circulation

(c) Airway, Bleeding, Consciousness

(d) Assessment, Bandaging, Care

3. What is the correct home preparation recipe for 1 Litre of Oral Rehydration Salts (ORS) solution?

(a) 1 L clean drinking water + 6 level teaspoons sugar + 1/2 level teaspoon salt

(b) 1 L clean drinking water + 2 teaspoons sugar + 2 teaspoons salt

(c) 500 ml water + 4 teaspoons sugar + 1 teaspoon salt

(d) 1 L clean drinking water + 10 teaspoons sugar + 1 teaspoon salt

4. Which medical equipment in a first aid kit delivers an electric shock to restore a normal rhythm in sudden cardiac arrest?

(a) Sphygmomanometer

(b) Automated External Defibrillator (AED)

(c) Pulse Oximeter

(d) Stethoscope

5. What is the immediate first aid treatment for a minor first-degree thermal burn caused by hot water or steam?

(a) Apply butter, ghee, or ice directly over the burn

(b) Flush cool running water over the burn for at least 10–15 minutes

(c) Pop all fluid-filled blisters immediately

(d) Apply tight adhesive bandages directly on the raw wound

6. A patient showing confusion, dry hot skin (absence of sweating), rapid pulse, and body temperature above 104°F (40°C) is suffering from:

(a) Hypothermia

(b) Heat Exhaustion

(c) Heat Stroke (Sunstroke)

(d) Hypoglycemia

7. What is the main medical risk associated with an untreated bite from a stray dog or wild animal?

(a) Malaria infection

(b) Rabies viral infection causing fatal hydrophobia

(c) Dengue hemorrhagic fever

(d) Typhoid fever

8. When applying a tourniquet for life-threatening arterial bleeding on a limb, where should it be positioned?

(a) Directly over the knee or elbow joint

(b) 2 to 3 inches above the wound (between wound and heart), never over a joint

(c) Distal to the wound towards fingers/toes

(d) On the uninjured opposite limb

9. What is the primary function of a splint in orthopaedic first aid care?

(a) To support and elevate an injured arm or shoulder

(b) To immobilize a fractured bone or dislocated joint to prevent further internal damage

(c) To absorb wound exudate and stop capillary bleeding

(d) To cool down body temperature during fever

10. Which category of workplace hazard includes exposure to repetitive strain, poor posture, and improperly designed furniture?

(a) Biological Hazard

(b) Chemical Hazard

(c) Ergonomic Hazard

(d) Psychosocial Hazard

SECTION B: SHORT ANSWER QUESTIONS

Answer the following questions concisely in 30–50 words each. Each question carries 2 marks.

Q11. Define First Aid and state two vital limitations that a first aid provider must strictly observe.

Q12. Enumerate the four core Golden Rules (Principles) of First Aid management.

Q13. Differentiate between a Sling and a Splint in orthopaedic emergency management.

Q14. Explain the purpose and importance of placing an unconscious, normally breathing casualty in the Recovery Position.

Q15. Outline the immediate first aid protocol for managing a casualty suffering from Heat Stroke (Sunstroke).

SECTION C: LONG ANSWER & CASE-BASED QUESTIONS

Answer the following detailed and scenario-based questions in 80–120 words each. Each question carries 4 marks.

Q16. Describe the 4-step systematic protocol (Scene Safety, Assessment, Call for Help, Management) when responding to an emergency accident scene.

Q17. Explain how to conduct the primary A-B-C assessment. State the precise clinical indications for starting Cardiopulmonary Resuscitation (CPR) and specify the standard chest compression-to-rescue-breath ratio for adults.

Q18. A Grade 10 student accidentally spills concentrated Hydrochloric Acid (HCl) on their forearm during a chemistry experiment. Detail the step-by-step emergency first aid protocol, including at least three strict 'DON'Ts.

Q19. A student is bitten on the leg by a stray dog near the school premises. Outline the immediate wound cleansing procedure, explain why Rabies is a fatal medical threat, and state the compulsory medical follow-up.

Q20. Classify the four major types of workplace hazards (Biological, Chemical, Ergonomic, Psychosocial) and provide one real-world example of each from a hospital or clinical setting.

ANSWER KEY

Section A — MCQ Answer Key

Q. No.	Correct Option	Core Explanation / Principle
Q1	**(b)**	Preserve life, prevent the condition from worsening, and promote recovery.
Q2	**(b)**	Airway (check patency), Breathing (look/listen/feel), Circulation (pulse/bleeding).
Q3	**(a)**	1 Litre clean water + 6 level teaspoons sugar + 1/2 level teaspoon salt.
Q4	**(b)**	Automated External Defibrillator (AED) delivers a shock during cardiac arrest.
Q5	**(b)**	Cool running water for 10–15 mins stops thermal injury progression.
Q6	**(c)**	Heat stroke presents with temp >104°F, dry hot skin, and altered sensorium.
Q7	**(b)**	Rabies virus transmitted via saliva affects the CNS, causing hydrophobia.
Q8	**(b)**	Apply 2-3 inches above the bleeding site on a long bone, never over a joint.
Q9	**(b)**	Splints immobilize injured limbs to prevent neurovascular damage.
Q10	**(c)**	Ergonomic hazards stem from poor posture, physical strain, and bad furniture design.
Section B	**Short Answer Solutions**	
Q11	Definition: First Aid is the immediate care given to an injured or ill person before full medical treatment is available. Limitations: (1) First Aid is NOT a replacement for physician care. (2) A first aider must not give any medicines/drugs, especially prescription drugs, or perform procedures beyond their training.	
Q12	**Golden Rules of First Aid**	

	1. Preserve Life — Take immediate priorities (A-B-C check). 2. Protect Casualty — Ensure safety from continuing hazards. 3. Provide Pain Relief & Comfort — Reassure the casualty and cover wounds. 4. Prevent Worsening — Immobilize fractures and control major bleeding.
Q13	• Sling: A flexible bandage (e.g., triangular cloth) used to support and elevate an injured arm, wrist, or collarbone. • Splint: A rigid device (e.g., wooden board, metal strip) tied along an injured bone to prevent movement of fractured ends.
Q14	• Purpose: Maintains an open, clear airway in an unconscious breathing casualty. • Mechanism: Prevents the tongue from falling back to block the pharynx and allows saliva/vomit to drain freely, preventing fatal aspiration/choking.
Q15	1. Move casualty immediately to a cool, shaded, or air-conditioned area. 2. Rapid Cooling: Apply cold wet cloths, ice packs to armpits/groin, or spray cool water. 3. Call an emergency ambulance immediately (Heat stroke is a fatal emergency).
Section C	**Long Answer Solutions**
Q16	1. Step 1: Scene Safety — Assess immediate environment for danger (traffic, electrical wires, fire, gas). Ensure the safety of the first aider before entering. 2. Step 2: Primary Victim Assessment — Perform an A-B-C check (Airway, Breathing, Circulation) and check the level of consciousness. 3. Step 3: Call for Help — Contact emergency services (108/112) with location, casualty count, and condition details. 4. Step 4: First Aid Management — Treat life-threatening issues (severe bleeding, CPR) first, then secondary injuries.
Q17	• A-B-C Survey: Airway (Head-tilt chin-lift), Breathing (Look, listen, feel for 10s), Circulation (Check carotid pulse & severe bleeding). • Indication for CPR: Initiated when victim is UNCONSCIOUS and NOT BREATHING (or only gasping). • CPR Ratio: 30 hard and fast chest compressions followed by 2 rescue breaths (100–120 compressions/min).
Q18	Emergency Action: 1. Flush burnt forearm under cool running tap water continuously for 15–20 minutes to dilute and wash off acid. 2. Remove acid-contaminated clothing gently while flushing. 3. Cover loosely with a sterile non-adherent dressing and refer to hospital. Strict DON'Ts: - DO NOT apply chemical neutralizers (e.g., alkalis) as exothermic reaction causes secondary heat burns. - DO NOT apply ice, ointment, butter, or toothpaste.

	- DO NOT pop blisters or rub the damaged skin.
Q19	• Immediate Cleaning: Wash the wound thoroughly under running water with soap for at least 15 minutes to physically remove viral particles. • Antiseptic Application: Apply povidone-iodine or alcohol solution; cover with a clean cloth. • Rabies Threat: Rabies is a 100% fatal viral disease affecting the central nervous system, causing hydrophobia, muscle spasms, and death. • Medical Follow-up: Transport immediately to hospital for Post-Exposure Prophylaxis (PEP) anti-rabies vaccination series.
Q20	1. Biological Hazard: Exposure to infectious viruses, bacteria, or blood-borne pathogens (e.g., Needle-stick injury or handling viral samples). 2. Chemical Hazard: Exposure to toxic disinfectants, anesthetic gases, or laboratory reagents (e.g., Inhaling Formaldehyde or bleach fumes). 3. Ergonomic Hazard: Physical strain from improper body mechanics (e.g., Back injury from lifting bedridden patients or prolonged stooping). 4. Psychosocial Hazard: Mental stress and fatigue (e.g., Burnout from long night shifts or severe emotional strain in ICU).

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