

	INDIAN SCHOOL AL WADI AL KABIR	
CLASS: X	DEPARTMENT: SCIENCE 2026 – 27 SUBJECT: HEALTH CARE (SUBJECT CODE - 413)	DATE: 30/08/2026
WORKSHEET NO: 3 WITH ANSWERS	UNIT 3: STERILIZATION AND DISINFECTION (SESSION – IV & V)	NOTE: A4 FILE FORMAT
NAME OF THE STUDENT:	CLASS & SEC: X -A to X -I	ROLL NO:

OBJECTIVE TYPE QUESTIONS (MULTIPLE CHOICE)

- Which unit is referred to by the abbreviation HDU?
 - High Dependency Unit
 - Health Dependency Unit
 - High Disease Unit
 - Health Department Unit
- Which disinfectant is rapidly bactericidal and is used as a topical antiseptic to disinfect the surface of medical equipment?
 - Alcohol
 - Iodine
 - Hypochlorite
 - Hydrogen peroxide
- Which instrument is used to see microorganisms that are too small to be seen by the naked eye?
 - X-ray
 - Sphygmomanometer
 - Telescope
 - Microscope
- Which substance in the stated concentration range is used for disinfecting plastics and glassware?
 - Peroxyacetic acid
 - Hydrochloric acid
 - Hypochlorite
 - Hydrogen peroxide
- Which cleaning process prepares a patient room after discharge or transfer for another patient?
 - Periodic cleaning

- b) Discharge cleaning
 - c) Garbage removal
 - d) Sterilization
6. Which of the following is a halogen used in hospitals for disinfection?
- a) Alcohol
 - b) Chlorine
 - c) Phenol
 - d) Formalin
7. Which method is recommended for sterilizing surgical instruments?
- a) Wiping with alcohol
 - b) Cleaning with soap and water
 - c) Autoclaving
 - d) Soaking in disinfectant solution
8. Which term means rendering an article or area free of danger from microbial, chemical, radioactive and other hazards?
- a) Disinfection
 - b) Sterilization
 - c) Antisepsis
 - d) Decontamination
9. Shingles in adults is caused by the same virus that causes which disease in children?
- a) Chickenpox
 - b) Polio
 - c) Sinusitis
 - d) Whooping cough
10. Which substance is used for disinfecting surgical instruments and dressing?
- a) Formalin
 - b) Glutaraldehyde
 - c) Epoxy ethane
 - d) Phenol

SHORT ANSWER QUESTIONS (2 MARKS)

1. Define a microorganism and state how it can be seen.
2. Name any four human diseases caused by bacteria.
3. State any two roles of GDAs and nurses in controlling Hospital-Acquired Infection (HAI).
4. What is a parasite? Mention how the host is affected.
5. Distinguish between a sign and a symptom.

6. What is an autoimmune disease?
7. State any two effects of HAI on the patient/community.
8. What is the consequence of overuse of antibiotics?
9. Differentiate between antiseptics and disinfectants.
10. Define decontamination.

DESCRIPTIVE QUESTIONS (4 MARKS)

1. Explain the role of the Food Service Department in maintaining food safety and quality service in a hospital.
2. Explain why cleaning is an important preparatory step before sterilization or disinfection. Include the major types of cleaning described in the workbook.
3. Explain Hospital-Acquired Infection (HAI), including its meaning, timing, types, major cause, effects and important risk factors.
4. Explain the three vertices of the epidemiological triangle: agent, host and environment.
5. Describe the role and functions of Hospital Management in controlling HAI.

ANSWER KEY

OBJECTIVE TYPE QUESTIONS (MULTIPLE CHOICE)

1. a) High Dependency Unit
2. a) Alcohol
3. d) Microscope
4. a) Peroxyacetic acid
5. b) Discharge cleaning
6. b) Chlorine
7. c) Autoclaving
8. d) Decontamination
9. a) Chickenpox
10. b) Glutaraldehyde

SHORT ANSWER QUESTIONS (2 MARKS)

1. A microorganism is an organism that is microscopic and too small to be seen by the naked eye. It can be seen using a microscope.
2. Tuberculosis, gonorrhoea, syphilis and cholera.
3. They help prevent HAI by maintaining hygiene, properly disinfecting wards and equipment, managing waste safely, and supporting infection-control and nursing teams.

4. A parasite is an organism that lives inside a different organism and depends on it for survival. It feeds from the host and the host suffers as a result.
5. A symptom is experienced and reported by the patient and is subjective. A sign is observed or measured by a healthcare provider and is objectively detectable.
6. An autoimmune disease occurs when the immune system attacks the body's own cells, tissues and organs, thinking they are unwanted invaders.
7. HAI can cause illness to the patient, longer hospital stays, longer recovery time and increased costs associated with prolonged stay and recovery.
8. Overuse of antibiotics can lead to resistant bacteria, making antibiotics less effective.
9. Antiseptics are used to control microorganisms on living tissue, whereas disinfectants are used for disinfection of surfaces/articles. (Alcohol is a topical antiseptic and disinfectants for hospital use.)
10. Decontamination is the process of rendering an article or area free of danger from contaminants, including microbial, chemical, radioactive and other hazards.

DESCRIPTIVE QUESTIONS (4 MARKS)

1. The Food Service Department sets standards and criteria for purchasing foodstuffs, equipment uses and cleaning procedures. Its functions include keeping equipment and work/storage areas clean; issuing instructions for hand washing, clothing, staff responsibilities and daily disinfection; preventing microbial contamination during storage, preparation and distribution; giving instructions for cleaning dishes, including special considerations for infected/isolated patients; handling and disposing of waste appropriately; and training staff in food preparation, cleanliness and food safety.
2. Cleaning removes soil and other dirt and reduces the microbial burden, making sterilization more effective. Equipment mentioned includes floor cleaning, swiping, floor scrubbing and floor polishing machines, and high-pressure bathroom-cleaning machines. Daily cleaning includes sweeping/mopping floors, dusting furniture, cleaning fixtures, walls, ceilings, windows and bathrooms, and emptying trash. Periodic cleaning includes washing windows, waxing floors, cleaning carpets, dusting high ceilings and changing drapers. Discharge cleaning prepares a room after discharge/transfer for another patient. Hospitals also use Integrated Pest Management for control of bugs and pests.

3. HAI, also called nosocomial infection, is an infection acquired during hospital care that was not present or incubating at admission. Infections occurring after 48 hours of admission are considered hospital-acquired. Types include endemic (common and constant) and epidemic (sudden outbreak). The main cause stated is bacteria. Effects include patient illness, longer hospital stay, longer recovery time and increased treatment cost. Risk is higher in very young, very old, very sick children, people with diseases such as diabetes, and patients with weak immunity; other risks include long stays, complex surgery, poor hand hygiene, antibiotic misuse, invasive equipment, open wounds/burns and high-risk areas such as ICU and HDU.

4. The epidemiological triangle has three vertices: agent, host and environment. The agent is the microbe that causes disease. The host is the organism, usually a human or animal, that is exposed to or harbours the disease; it may also include an animal carrier. The environment consists of external factors and favourable surroundings or conditions that cause or allow disease transmission.

5. Hospital Management can control HAI by establishing a multidisciplinary Infection Control Committee; identifying resources to monitor infections and apply appropriate prevention methods; ensuring education and training of staff in infection prevention, disinfection and sterilization techniques; delegating technical hospital-hygiene functions to nursing, housekeeping, maintenance and the Clinical Microbiology Laboratory; periodically reviewing nosocomial infection status and intervention effectiveness; reviewing, approving and implementing Infection Control Committee policies; and ensuring that the infection-control team has the authority to facilitate appropriate programme functions.

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