

# **CUET PG 2025 Healthcare and Hospital Management Question Paper with Solutions**

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| Time Allowed :1 Hour 45 Mins | Maximum Marks :300 | Total Questions :75 |
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## **General Instructions**

### **General Instructions:**

1. Question Paper contains 75 Questions .
2. Each correct answer will have +4 marks and wrong answer will lead to -1

**1. What implies to harmony and integration within the individual, between each individual and other members of society and between individuals and the world in which they live?**

- (A) Physical Dimension of Health
- (B) Mental Dimension of Health
- (C) Social Dimension of Health
- (D) Emotional Dimension of Health

**Correct Answer:** (C) Social Dimension of Health

**Solution:**

**Step 1:** The question describes a multifaceted concept of well-being that encompasses three distinct levels of connection: harmony within oneself (internal), positive relationships with others (interpersonal), and a sense of integration with the broader environment (worldly). The task is to identify the dimension of health that best encapsulates this comprehensive idea.

**Step 2:** We will assess each option to determine how well it aligns with the provided definition.

- **Physical Dimension:** This dimension is primarily concerned with the biological and physiological functioning of the body. It includes aspects like physical fitness, absence of disease, and proper organ function. It does not adequately address the intricate relationships between an individual, society, and the world.
- **Mental Dimension:** This aspect focuses on an individual's cognitive abilities and emotional state, including self-esteem, coping mechanisms, and the ability to process information. While it covers the "harmony within the individual," it does not extend to cover the societal and environmental integration mentioned in the question.
- **Social Dimension:** This dimension is explicitly concerned with an individual's capacity to build and maintain healthy relationships, interact effectively with others, and contribute to the community. It directly involves the harmony between individuals and society, and by extension, their place in the world, making it a perfect match for the question's description.
- **Emotional Dimension:** This is related to understanding, managing, and expressing one's feelings appropriately. Although a crucial part of mental health and internal harmony, it does not encompass the full scope of interaction with other people and the environment.

**Step 3:** Based on the evaluation, the Social Dimension of Health is the only option that comprehensively covers the required harmony and integration at the personal, societal, and environmental levels. Therefore, it is the correct answer.

 **Quick Tip**

Health is multidimensional. Remember the key focus of each dimension: Physical (body), Mental (mind/emotions), Social (relationships/society), and Spiritual (purpose/values).

**2. Lifestyle factors that promote good health does not include which of the following?**

- (A) Adequate Nutrition
- (B) Enough Sleep
- (C) Sufficient Physical Activity
- (D) Genetic Composition

**Correct Answer:** (D) Genetic Composition

**Solution:**

**Step 1:** The term "lifestyle factors" refers to the set of personal habits, choices, and daily behaviors that an individual can actively control and modify. These decisions have a direct and significant impact on overall health and well-being.

**Step 2:** Let's examine each option to determine if it fits the definition of a controllable lifestyle factor.

- **Adequate Nutrition:** The choice of what and how much to eat is a fundamental daily decision and a cornerstone of a healthy lifestyle. This is a lifestyle factor.
- **Enough Sleep:** Deciding when to sleep and prioritizing sufficient rest is a behavioral choice that profoundly affects health. This is a lifestyle factor.
- **Sufficient Physical Activity:** Engaging in regular exercise is a conscious choice and a critical component of a healthy lifestyle. This is a lifestyle factor.
- **Genetic Composition:** An individual's genetic makeup is inherited from their parents and determined at conception. It is a biological determinant of health but is not a choice or behavior that can be changed. It is a non-modifiable factor.

**Step 3:** Since genetic composition is inherited and cannot be altered by personal choices or actions, it does not qualify as a lifestyle factor. The other three options are all behaviors that individuals can control to promote their health.

 **Quick Tip**

Differentiate between modifiable risk factors (like lifestyle) and non-modifiable risk factors (like age, sex, and genetics) when considering health determinants.

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**3. What defines the "Reliability" of health indicators?**

- (A) They should actually measure what they are supposed to measure.
- (B) The answers should be the same if measured by different people in similar circumstances.
- (C) They should be sensitive to changes in the situation concerned.
- (D) They should have the ability to obtain the data needed.

**Correct Answer:** (B) The answers should be the same if measured by different people in similar circumstances.

**Solution:**

**Step 1:** For a health indicator to be considered effective and trustworthy, it must possess several key qualities. These include Validity, Reliability, Sensitivity, Specificity, Feasibility, and Relevance. Each quality addresses a different aspect of the indicator's utility. The question specifically asks to define "Reliability."

**Step 2:** Let's clarify the meaning of each key characteristic and align it with the given options.

- **Validity:** This quality ensures that an indicator accurately measures the specific concept it is intended to measure. This corresponds directly to option (A).
- **Reliability (or Reproducibility):** This refers to the consistency of the measurement. A reliable indicator will produce the same results when used repeatedly under the same conditions, even if administered by different people. This is precisely what is described in option (B).
- **Sensitivity:** This is the indicator's capacity to accurately detect changes in the health status of a population. This matches the description in option (C).
- **Feasibility:** This characteristic relates to the practicality of collecting the data needed for the indicator. If the data is too difficult or expensive to obtain, the indicator is not feasible. This aligns with option (D).

**Step 3:** Based on the definitions, Reliability is fundamentally about the consistency and reproducibility of results. Option (B) provides the most accurate and complete definition of this concept.

 Quick Tip

Remember the acronym V-R-S for key properties of indicators: **V**alidity (measures the right thing), **R**eliability (gives consistent results), and **S**ensitivity (detects changes).

**4. Which of the following terms has been defined by WHO as "the control of all those factors in man's physical environment which exercise or may exercise a deleterious effect on his physical development, health and survival"?**

- (A) Environmental Sanitation
- (B) Environmental Health
- (C) Environmental Standard
- (D) Environmental Control

**Correct Answer:** (B) Environmental Health

**Solution:**

**Step 1:** The definition provided by the World Health Organization (WHO) is notably broad. It speaks of controlling "all factors" within the "physical environment" that could negatively impact human well-being across the lifespan, from "development" and "health" to ultimate "survival." This implies a comprehensive, all-encompassing field.

**Step 2:** Let's evaluate the scope of each term provided.

- **Environmental Sanitation:** This term typically refers to a specific subset of actions focused on managing immediate surroundings to prevent disease, such as ensuring safe drinking water, proper disposal of human waste, and solid waste management. It is an important component, but it is not as all-encompassing as the WHO definition.
- **Environmental Health:** This is a much broader public health field. It addresses all the physical, chemical, and biological factors external to a person, and all the related factors impacting behaviors. The WHO's definition perfectly captures the extensive scope of this field, which is dedicated to preventing disease and creating health-supportive environments.
- **Environmental Standard:** This refers to a specific, measurable limit or regulation set for pollutants or other hazards in the environment (e.g., the maximum allowable level of lead in drinking water). It is a tool used within environmental health, not the field itself.
- **Environmental Control:** This is a general term for any action taken to manage environmental factors. While relevant, "Environmental Health" is the specific, formally defined public health discipline that matches the WHO's description.

**Step 3:** The WHO's definition, with its focus on controlling all environmental factors affecting human health and survival, is the classic and precise definition of the field of Environmental Health.

#### 💡 Quick Tip

Think of Environmental Health as the umbrella term. Environmental Sanitation is a very important part that fits under this umbrella.

### 5. Which of the statement is FALSE in relation to "Ground Water"?

- (A) It is likely to be free from pathogenic agents.
- (B) It is more subjected to contamination than surface water.
- (C) It is superior to surface water, because the ground itself provides an effective filtering medium.
- (D) The supply of Ground Water is likely to be certain even during dry season.

**Correct Answer:** (B) It is more subjected to contamination than surface water.

#### **Solution:**

**Step 1:** Groundwater is the water that exists beneath the Earth's surface in the pore spaces of soil and in the fractures of rock formations. As water from the surface seeps downward, it passes through multiple layers of soil, sand, and rock, which act as a natural filtration system.

**Step 2:** We will assess the accuracy of each statement about groundwater.

- (A) True. The percolation process through layers of earth effectively filters out most bacteria, viruses, and other pathogenic microorganisms. This natural purification makes groundwater significantly less likely to contain these agents compared to surface water.
- (B) False. This statement is the opposite of reality. Surface water (in rivers, lakes, and streams) is directly exposed to atmospheric pollutants, industrial discharge, agricultural

runoff, and other sources of contamination. Groundwater is protected by the overlying layers of earth, making it far \*less\* susceptible to contamination.

- (C) True. Due to the extensive natural filtration it undergoes, groundwater is generally of higher microbiological quality and is considered superior to untreated surface water for drinking purposes.
- (D) True. Groundwater is stored in large underground reservoirs called aquifers, which are less immediately affected by seasonal variations in rainfall than surface water bodies. This makes groundwater a more stable and reliable (certain) water source, particularly during dry seasons or droughts.

**Step 3:** Statement (B) makes a factually incorrect claim. Groundwater is inherently better protected and therefore less subject to contamination than surface water. This makes statement (B) the false one.

#### 💡 Quick Tip

Groundwater's key advantages are its natural filtration (making it purer) and large volume (making it a more reliable source). Its main disadvantage is that if it does get contaminated, it is very difficult to clean up.

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**6. What is the full form of NOAEL which is defined as the highest dose or concentration of a chemical in a single study, found by experiment or observation, that causes no detectable adverse health effects?**

- (A) No-observed-adverse-effect level.
- (B) No-observed-adverse-essential level.
- (C) Nil-observed-adverse-effect level.
- (D) No-observed-adequate-effect level.

**Correct Answer:** (A) No-observed-adverse-effect level.

#### **Solution:**

**Step 1:** The definition provides clear clues to the meaning of the acronym. It specifies a "level" (dose or concentration) at which "no" "adverse" health "effects" are "observed" during a scientific study. We need to find the option that correctly assembles these key concepts.

**Step 2:** Let's deconstruct the acronym NOAEL using the definition as a guide.

- **N** stands for **No** – indicating the absence of an effect.
- **O** stands for **Observed** – signifying that this was determined through scientific observation or experiment.
- **A** stands for **Adverse** – specifying that the effect being looked for is harmful.
- **E** stands for **Effect** – referring to a health outcome.
- **L** stands for **Level** – denoting the dose or concentration.

Putting these together gives "No-Observed-Adverse-Effect Level."

**Step 3:** Option (A) "No-observed-adverse-effect level," perfectly aligns with our deconstruction of the acronym and the provided definition. The other options introduce incorrect terms such as "essential," "nil," and "adequate," which do not fit the established toxicological terminology.

 Quick Tip

In toxicology, remember the key levels:

- **NOAEL:** Highest dose with NO adverse effect.
- **LOAEL** (Lowest-observed-adverse-effect level): Lowest dose where an adverse effect IS observed.

NOAEL is a critical value used for setting safety standards.

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**7. What does the unit "Becquerel (Bq)" define?**

- (A) The activity of a pathogenic material.
- (B) The activity of a radio-active material.
- (C) The activity of a chemical material.
- (D) A hardness of material.

**Correct Answer:** (B) The activity of a radio-active material.

**Solution:**

**Step 1:** In physics and health science, the Becquerel (Bq) is the standard, internationally recognized (SI) unit for measuring radioactivity. It is named after the physicist Henri Becquerel.

**Step 2:** The fundamental definition of the Becquerel is the rate at which a radioactive material undergoes nuclear decay. Specifically, one Becquerel (1 Bq) is defined as the activity of a quantity of radioactive material in which one atomic nucleus decays per second. This directly and exclusively pertains to the activity of radioactive substances.

**Step 3:** Let's consider why the other options are incorrect.

- The activity of a pathogenic material (its ability to cause disease) is measured by infectivity or virulence, not in Becquerels.
- The activity of a chemical material is typically described in terms of its concentration (e.g., moles per liter) or reaction kinetics.
- The hardness of a material is a physical property that measures resistance to scratching or indentation and is measured using scales like the Mohs scale or Vickers hardness test.

Therefore, the only correct application for the Becquerel unit is to measure the activity of a radioactive material.

💡 Quick Tip

Associate units with their quantities:

- **Becquerel (Bq)** or **Curie (Ci)** → Radioactivity.
- **Gray (Gy)** or **Rad** → Absorbed dose of radiation.
- **Sievert (Sv)** or **Rem** → Equivalent dose (biological effect) of radiation.

**8. Medical sociology is a specialization within the field of sociology. It was first proposed by whom?**

- (A) Robert K. Merton
- (B) Malcom V
- (C) Charles McIntire
- (D) Bostonee T.D

**Correct Answer:** (C) Charles McIntire

**Solution:**

**Step 1:** The history of academic disciplines often distinguishes between the person who first coined or proposed a term and the later scholars who developed the field's theories and methods. The question asks for the individual who \*first proposed\* the term.

**Step 2:** Historical accounts of the field of sociology show that the term "medical sociology" was first introduced in an article written in 1894 by a physician named Dr. Charles McIntire. He used the term to advocate for the study of social factors in health and medicine.

**Step 3:** While figures like Robert K. Merton and Talcott Parsons were instrumental in developing the theoretical foundations of medical sociology in the mid-20th century, making it a robust academic field, they were not the originators of the term itself. The credit for the initial proposal of the name "medical sociology" belongs to Charles McIntire. The other names listed are not associated with the founding of this specific term.

💡 Quick Tip

When answering history-based questions, distinguish between who "coined a term" or "first proposed" an idea versus who "developed" or "popularized" the field later. The origins are often earlier than the main period of growth.

**9. The speciality of family practice is specially designed to deliver which type of care?**

- (A) "Primary care"
- (B) "Secondary care"
- (C) "Tertiary care"
- (D) "Quaternary care"

**Correct Answer:** (A) "Primary care"

**Solution:**

**Step 1:** Modern healthcare delivery is typically organized into a tiered system to efficiently manage patient needs, from common ailments to complex conditions. The main levels are:

- **Primary Care:** This is the first level of contact a patient has with the healthcare system. It is characterized by being continuous, comprehensive, and accessible. It addresses the majority of a person's health needs throughout their life and is usually provided by general practitioners (GPs) or family physicians.
- **Secondary Care:** This level involves more specialized treatment and diagnosis, typically provided by specialists like cardiologists, urologists, or dermatologists. Patients are usually referred to secondary care by their primary care provider.
- **Tertiary Care:** This refers to highly specialized, complex medical care that requires advanced equipment and expertise, such as neurosurgery, advanced cancer treatments, or complex surgeries. It is usually delivered in large hospitals or medical centers.
- **Quaternary Care:** This is an even more specialized level of care, often involving experimental medicine and procedures, and is found only at a limited number of institutions.

**Step 2:** The speciality of family practice is defined by its role in providing comprehensive, long-term care to individuals and families. A family physician serves as the main point of contact for patients, manages a wide range of health issues, and coordinates care with specialists when necessary. This function is the very definition of a primary care provider.

**💡 Quick Tip**

Think of the levels of care as a pyramid. Primary care is the broad base that everyone accesses first. Secondary and Tertiary care form the narrower, more specialized upper levels that patients are referred to as needed.

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**10. Which of the following statement is FALSE?**

- (A) Contraceptive methods which may be quite suitable for one group may be unsuitable for another, because of different cultural patterns.
- (B) The social obstetric problems in India, differ from the social obstetric problems in the developed countries, because of cultural factors.
- (C) Studying the cultural patterns relating to child-bearing might be useful in promoting acceptance and utilization of obstetric and paediatric services by the community.
- (D) The traditions affecting habits related to cleanliness, eating, clothing, and child care are unaffected by cultural factors.

**Correct Answer:** (D) The traditions affecting habits related to cleanliness, eating, clothing, and child care are unaffected by cultural factors.

**Solution:**

**Step 1:** We must evaluate each statement based on the well-established understanding that culture profoundly influences health beliefs and behaviors.

- (A) True. Culture, religion, and societal norms have a major impact on family planning. A contraceptive method that is widely accepted in one culture may be considered unacceptable or impractical in another due to differing values about family size, gender roles, or religious doctrines.
- (B) True. Social obstetric problems are deeply embedded in cultural contexts. Issues in India, such as early marriage, dowry systems, son preference, and the influence of extended family on pregnancy care, are very different from the primary social obstetric concerns in many developed nations, which might focus more on delayed childbirth or access to advanced reproductive technologies.
- (C) True. This is a fundamental principle of public health. To create effective maternal and child health programs, it is essential to understand the local cultural beliefs, traditions, and practices surrounding pregnancy and child-rearing. This allows for culturally sensitive interventions that are more likely to be accepted and used by the community.
- (D) False. This statement is fundamentally flawed and self-contradictory. Culture is the very foundation from which traditions and habits related to cleanliness, diet, clothing, and child care arise. These practices are not just affected by culture; they are expressions of it. To say they are "unaffected by cultural factors" is an illogical and incorrect assertion.

**Step 2:** Statement (D) presents a direct contradiction. Traditions are, by their very nature, a product of cultural factors. Therefore, the claim that they are unaffected by culture is definitively false.

#### 💡 Quick Tip

In social sciences, be wary of absolute statements using words like "all," "none," or "unaffected." Human behavior and culture are complex and rarely fit into such rigid categories. The false statement is often the one that makes the strongest, most inflexible claim.

**11. "Security that society furnishes through appropriate organization, against certain risks to which its members are exposed" is termed as which of the following?**

- (A) Society security
- (B) Health security
- (C) Social security
- (D) Community security

**Correct Answer:** (C) Social security

**Solution:**

**Step 1:** Let's break down the key components of the definition given in the question:

- **Source of security:** It is provided by "society" as a whole.

- **Mechanism:** It is delivered through an "appropriate organization," implying a structured system, usually governmental.
- **Purpose:** It protects against "certain risks," such as old age, unemployment, sickness, and disability.
- **Beneficiaries:** The "members" of that society.

**Step 2:** This description is the foundational, internationally recognized definition of Social Security. It is a formal system of protection or "security" that a society provides for its members to mitigate economic and social distress caused by predictable life events.

**Step 3:** Let's examine why the other options are less precise.

- "Society security" and "Community security" are generic phrases but are not the established technical terms for this organized system of protection.
- "Health security" is a more specific concept that focuses on protecting populations from acute public health threats like epidemics and pandemics. While it is a component of overall social well-being, it does not cover the full range of risks (like unemployment or old age) included in the broader definition.

Thus, Social Security is the most accurate and standard term for the system described.

#### 💡 Quick Tip

Social security is a broad concept of societal protection. Think of common examples like pension plans (protection against old age), unemployment benefits, and disability insurance. These are all organized programs to mitigate risks for society's members.

## 12. Waste in health care processes can be classified into how many types?

- (A) Five
- (B) Six
- (C) Seven
- (D) Four

**Correct Answer:** (C) Seven

### Solution:

**Step 1:** Healthcare facilities generate a wide variety of waste, which must be carefully segregated to ensure safe handling and disposal. Classification systems are established by international bodies like the WHO and national regulatory agencies to categorize this waste, primarily focusing on the different types of hazards it presents.

**Step 2:** Although minor variations exist between countries, a widely accepted and comprehensive international classification system for hazardous biomedical waste divides it into multiple distinct categories. A detailed and commonly referenced breakdown includes seven primary types of hazardous waste, in addition to general non-hazardous waste. These seven hazardous categories are:

1. **Infectious Waste:** Waste contaminated with blood, body fluids, or pathogens.

2. **Pathological Waste:** Human tissues, organs, or body parts.
3. **Sharps Waste:** Needles, scalpels, broken glass, and other items that can cause cuts or punctures.
4. **Pharmaceutical Waste:** Unused, contaminated, or expired medicines and drugs.
5. **Genotoxic Waste:** Highly hazardous waste that is mutagenic, teratogenic, or carcinogenic, such as cytotoxic drugs used in cancer therapy.
6. **Chemical Waste:** Waste containing chemical substances, such as lab reagents, solvents, or disinfectants.
7. **Radioactive Waste:** Waste containing radioactive materials, often from diagnostic or therapeutic procedures.

**Step 3:** This detailed classification into seven distinct categories of hazardous waste is a standard model in waste management literature and guidelines. Therefore, "Seven" is the most accurate answer among the choices provided, reflecting a comprehensive system for waste segregation.

 Quick Tip

Biomedical waste classification can be complex. For exam purposes, be familiar with the major categories: Infectious, Sharps, Pathological, and Chemical/Pharmaceutical. Knowing that more detailed systems exist (like the 7-category one) can help answer specific questions about the number of types.

**13. The process that involves mixing waste with cement and other substances before disposal, in order to minimize the risk of toxic substances contained in the wastes migrating into the surface water or ground water is termed as?**

- (A) Inertization
- (B) Incineration
- (C) Land disposal
- (D) Microwave irradiation

**Correct Answer:** (A) Inertization

**Solution:**

**Step 1:** The question details a specific waste treatment method. The key actions are "mixing waste with cement and other substances" (like lime and water). The explicit goal is to "minimize the risk of toxic substances... migrating" by physically trapping them. This suggests a process of stabilization and solidification.

**Step 2:** Let's clarify the meaning of each waste treatment technology.

- **Inertization:** This process involves mixing waste with cementing agents to create a solid, stable mass. This physically encapsulates hazardous components, making the waste 'inert'—meaning it is less likely to react or leach toxic materials into the environment. This definition perfectly matches the process described in the question.

- **Incineration:** This is a high-temperature thermal destruction process. Waste is burned in a furnace to reduce its volume and destroy pathogens. It does not involve mixing with cement.
- **Land disposal:** This is the final placement of waste into the ground, typically in a sanitary landfill. Inertization is a pre-treatment method used *\*before\** final land disposal to make the waste safer.
- **Microwave irradiation:** This is a non-incineration disinfection technology. It uses microwaves to generate heat that kills microorganisms within the waste. It is a treatment for infectious waste, not for chemical stabilization.

**Step 3:** The description of mixing waste with cement to solidify and contain toxic substances is the exact definition of Inertization.

#### 💡 Quick Tip

Remember the purpose of different waste treatments:

- **Incineration** → Destroy and reduce volume (heat).
- **Autoclaving/Microwaving** → Disinfect (kill germs).
- **Inertization** → Stabilize and contain toxins (mixing/solidifying).

#### 14. Who is the father of epidemiology?

- (A) John Snow
- (B) Paracelsus
- (C) Andreas Vesalius
- (D) Ambroise Pare

**Correct Answer:** (A) John Snow

#### **Solution:**

**Step 1:** The prestigious title "father of epidemiology" is bestowed upon the individual whose pioneering work established the fundamental methods of the discipline: systematic data collection, spatial analysis, hypothesis testing, and intervention based on evidence.

**Step 2:** Dr. John Snow, a 19th-century English physician, earned this title for his methodical investigation of the 1854 cholera outbreak in the Soho district of London. He did not accept the prevailing "miasma" (bad air) theory. Instead, he carefully plotted the locations of cholera deaths on a map, revealing a clear cluster around the Broad Street water pump.

**Step 3:** Snow's work was revolutionary because it was a complete epidemiological study. He collected data (case locations), analyzed its distribution, formulated a specific hypothesis (contaminated water from the pump was the source), and took decisive action by persuading local authorities to remove the pump handle. The subsequent decline in cholera cases validated his hypothesis and demonstrated the power of epidemiological investigation in public health. While the other individuals were important medical pioneers, their work was in other areas like toxicology (Paracelsus), anatomy (Vesalius), and surgery (Pare).

💡 Quick Tip

When you think of John Snow, remember two things: **Cholera** and the **Broad Street Pump**. His investigation is the quintessential example of "shoe-leather epidemiology" – going out into the field to collect data and solve a public health crisis.

**15. Active immunity is not acquired by which of the following?**

- (A) After clinical infection.
- (B) After administration of an antibody-containing preparation.
- (C) After subclinical or inapparent infection.
- (D) After immunization with an antigen which may be a live attenuated vaccine or toxoid.

**Correct Answer:** (B) After administration of an antibody-containing preparation.

**Solution:**

**Step 1:** It is essential to distinguish between the two major types of immunity.

- **Active Immunity:** This form of immunity is developed when an individual's own immune system is stimulated to produce its own antibodies and memory cells after being exposed to an antigen (a foreign substance, such as a virus, bacterium, or vaccine). This process is durable and provides long-term protection, but it takes time to develop.
- **Passive Immunity:** This form of immunity is acquired when an individual receives pre-formed antibodies from an external source. The recipient's immune system does not do any work. This provides immediate protection, but it is temporary because the borrowed antibodies are eventually broken down and not replaced.

**Step 2:** Let's categorize each scenario as either active or passive immunity.

- (A) After clinical infection: When a person gets sick, their body is exposed to the pathogen (the antigen) and their immune system actively produces antibodies to fight it. This is **Natural Active Immunity**.
- (B) After administration of an antibody-containing preparation: In this case, such as receiving an injection of immunoglobulins, the person is directly given pre-made antibodies. Their own body does not produce them. This is **Artificial Passive Immunity**.
- (C) After subclinical infection: This is functionally the same as a clinical infection. The body is exposed to the antigen and actively produces its own antibodies, but the infection does not cause noticeable symptoms. This is **Natural Active Immunity**.
- (D) After immunization with a vaccine/toxoid: A vaccine introduces a safe form of an antigen into the body, stimulating the immune system to actively produce its own antibodies and memory cells. This is **Artificial Active Immunity**.

**Step 3:** Option (B) is the only scenario where the individual's immune system remains passive. Protection is achieved by receiving external antibodies, which defines passive immunity, not active immunity.

 Quick Tip

The key to distinguishing active vs. passive immunity is to ask: "Did the person's own body *\*actively\** make the antibodies?" If yes, it's active. If they were given antibodies *\*passively\**, it's passive.

**16. The introduction of a gene sequence into a cell with the aim of modifying the cell's behaviour in a clinically relevant fashion is termed as?**

- (A) Gene therapy
- (B) DNA technology
- (C) Cell technology
- (D) DNA therapy

**Correct Answer:** (A) Gene therapy

**Solution:**

**Step 1:** The question describes a very specific medical intervention. Let's break down its essential components:

- **What is introduced?** A "gene sequence."
- **Where is it introduced?** Into a "cell."
- **What is the goal?** To "modify the cell's behaviour."
- **What is the context?** It is done for a "clinically relevant fashion," which means for the purpose of treating, preventing, or curing a disease.

**Step 2:** We will now evaluate which term best fits this detailed description.

- **Gene therapy:** This is the precise, established scientific term for the therapeutic technique of introducing genetic material into a patient's cells to treat a genetic disorder or other diseases. The goal is to correct faulty genes or to give cells a new function. This aligns perfectly with every component of the definition.
- **DNA technology:** This is a very broad, umbrella term that includes a vast range of techniques used to work with DNA, such as DNA sequencing, genetic fingerprinting, and polymerase chain reaction (PCR). Gene therapy is a highly specialized application *\*of\** DNA technology, but it is not the term for the technology itself.
- **Cell technology:** This is another general term that refers to any technology involving the manipulation of cells, like stem cell culture or in vitro fertilization.
- **DNA therapy:** While it seems plausible, this term is not the standard scientific nomenclature. The correct and universally accepted term is "Gene therapy."

**Step 3:** Based on the precise and universally accepted definitions in the fields of genetics and medicine, "Gene therapy" is the most accurate and specific term for the clinical process described.

 Quick Tip

Think of "DNA technology" as the large toolbox (with tools like gene editing, PCR, etc.) and "Gene therapy" as one specific job you can do with those tools: fixing a disease at the genetic level.

**17. Which condition is known to be highly endemic in Sub-Himalayan regions?**

- (A) Xerophthalmia
- (B) Protein-Energy Malnutrition
- (C) Goitre
- (D) Anemia

**Correct Answer:** (C) Goitre

**Solution:**

**Step 1:** The Sub-Himalayan region consists of mountainous and hilly terrain. Due to heavy rainfall, snowmelt, and glaciation over millennia, the topsoil in these areas has been leached of its soluble minerals, most notably iodine.

**Step 2:** The food grown in this iodine-deficient soil, the water sourced from its rivers, and the meat from animals that graze there are all consequently low in iodine. The population living in this belt, relying on local food sources, therefore has a diet that is chronically deficient in iodine. Iodine is an essential micronutrient that the thyroid gland requires to synthesize thyroid hormones (T3 and T4).

**Step 3:** In response to low iodine levels, the pituitary gland signals the thyroid to work harder to produce its hormones. To try and trap as much iodine as possible from the bloodstream, the thyroid gland increases in size. This chronic enlargement of the thyroid gland is known as goitre. Because this condition is so widespread and persistent in this specific geographical area due to the environmental iodine deficiency, it is considered highly endemic. This entire area is often referred to as the "goitre belt."

 Quick Tip

Associate specific geographical "belts" with nutritional deficiencies:

- **Sub-Himalayan Belt** → Iodine Deficiency → **Goitre**.
- Fluorosis can also be endemic in certain regions with high fluoride content in water.

**18. Who discovered vaccination against smallpox in 1796?**

- (A) Louis Pasteur
- (B) Walter Reed
- (C) James Lind
- (D) Edward Jenner

**Correct Answer:** (D) Edward Jenner

**Solution:**

**Step 1:** The discovery of vaccination is one of the most significant achievements in the history of medicine. It stemmed from a folk observation in rural England that people who worked with cattle, specifically milkmaids, often contracted a mild disease called cowpox but seemed to be protected from the deadly disease of smallpox.

**Step 2:** An English physician named Edward Jenner decided to investigate this observation scientifically. In 1796, he conducted a landmark experiment. He took fluid from a cowpox sore on the hand of a milkmaid and inoculated it into an eight-year-old boy, James Phipps. The boy developed a mild fever but recovered quickly. A few weeks later, Jenner deliberately exposed the boy to smallpox matter, but the boy remained healthy, proving he was immune.

**Step 3:** Let's place the other historical figures in their correct context.

- **Louis Pasteur:** A French biologist who made enormous contributions in the late 19th century, including developing vaccines for rabies and anthrax and inventing pasteurization. His work came long after Jenner's.
- **Walter Reed:** An American army physician who, around 1900, confirmed that yellow fever was transmitted by mosquitoes, not by direct contact.
- **James Lind:** A Scottish naval surgeon who, in the 1740s, conducted one of the first-ever clinical trials and proved that citrus fruits could prevent and cure scurvy among sailors.

Therefore, the specific discovery of vaccination against smallpox in 1796 is correctly attributed to Edward Jenner. His work gave us the very word "vaccination," derived from \*vacca\*, the Latin word for cow.

**💡 Quick Tip**

Remember the key associations:

- **Jenner** → Smallpox, Cowpox, Vaccination (1796).
- **Pasteur** → Rabies, Pasteurization, Germ Theory.

**19. What is defined as, "The process of continuous progressive improvement of the health status of a population"?**

- (A) Continuous development
- (B) Health development
- (C) Progressive development
- (D) Population development

**Correct Answer:** (B) Health development

**Solution:**

**Step 1:** The definition provided has three core components: a process ("continuous progressive improvement"), a specific subject ("the health status"), and a target group ("of a population"). The correct term must accurately encompass all three aspects.

**Step 2:** Let's evaluate the options. The term "Health development" is a standard phrase in public health that precisely combines the concept of "development" (continuous, progressive

improvement) with the specific focus area of "health." It describes the organized efforts of a society to improve the overall health and well-being of its people over time.

**Step 3:** The other options are less precise. "Continuous development" and "Progressive development" are generic terms that could apply to any field, such as economics or education, and lack the specific focus on health. "Population development" is also ambiguous and could refer to demographic trends like population growth or aging, rather than health status. Therefore, "Health development" is the most accurate and specific term.

 Quick Tip

In public health terminology, specificity is key. "Health development" links the process ("development") with the specific outcome ("health"), making it the correct term for improving the health status of a population.

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**20. In which year the urban leprosy control programme was initiated to address the complex problem of larger population size, migration, poor health infrastructure and increasing leprosy cases in urban areas?**

- (A) 2005
- (B) 2006
- (C) 2007
- (D) 2008

**Correct Answer:** (A) 2005

**Solution:**

**Step 1:** India's main program for leprosy has been the National Leprosy Eradication Programme (NLEP). As the country urbanized, it became evident that urban centers posed unique challenges to disease control, including high population density, constant migration, sprawling slums, and a complex mix of public and private health providers.

**Step 2:** To tackle these specific issues, the Government of India decided to launch a targeted initiative. This initiative, known as Urban Leprosy Control (ULC), was established as a focused strategy under the umbrella of the broader NLEP.

**Step 3:** The Urban Leprosy Control programme was officially launched during the financial year 2005-2006. This timing marks the beginning of intensified and specialized efforts to control leprosy in designated urban areas. Therefore, 2005 is the correct starting year.

 Quick Tip

National health programs often evolve. They start as broad national programs (like NLEP) and then develop specialized sub-programs (like Urban Leprosy Control) to target specific problems or geographical areas that need more attention.

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**21. Which of the following statements is false in terms of the peculiarities of a hospital system?**

- (A) A hospital is a closed system which interacts within its environment.
- (B) The boundaries separating the hospital system from other social systems are not clear.
- (C) A hospital system has to be in a dynamic equilibrium with the wider social system.
- (D) A hospital system is not an end in itself. It must function, as a part of the larger health care system.

**Correct Answer:** (A) A hospital is a closed system which interacts within its environment.

**Solution:**

**Step 1:** In systems theory, these terms have precise meanings. A **closed system** is theoretical and is considered self-sufficient, with no interaction or exchange with its external environment. In contrast, an **open system** actively interacts with its environment by taking in inputs (e.g., resources, people, information) and releasing outputs (e.g., products, services).

**Step 2:** Let's analyze each statement about the hospital.

- (A) This statement is inherently contradictory and therefore false. It first claims a hospital is a "closed system" and then immediately states that it "interacts within its environment." An entity that interacts with its environment is, by definition, an open system. Hospitals are classic examples of open systems; they depend on the community for patients, staff, funding, and supplies, and in turn, they output treated patients and health information back into the community.
- (B) True. The boundaries are permeable and unclear. A hospital is deeply interconnected with other systems, including family systems (patient support), economic systems (insurance, billing), and political systems (regulations, public funding).
- (C) True. A hospital must continually adapt to external changes—such as new medical technologies, evolving diseases, and changing societal expectations—to remain effective. This constant state of adaptation is known as dynamic equilibrium.
- (D) True. A hospital is a crucial component, but it is just one part of the entire health ecosystem, which also includes primary care clinics, public health agencies, long-term care facilities, and preventive services.

**Step 3:** Statement (A) is logically flawed and factually incorrect. A hospital is fundamentally an open system, not a closed one.

 **Quick Tip**

Almost all social organizations, including hospitals, schools, and businesses, are **open systems**. They cannot exist in isolation and are in constant exchange with their environment. A statement claiming such an organization is a "closed system" is almost always false.

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**22. What type of communication covers horizontal flow of information with people on same organisational level, and also diagonal flow with persons at different levels who have no direct reporting relationships?**

- (A) Downward Communication

- (B) Upward Communication
- (C) Crosswise Communication
- (D) Sideways Communication

**Correct Answer:** (C) Crosswise Communication

**Solution:**

**Step 1:** Communication within an organization is categorized by the direction of its flow relative to the formal hierarchy.

- **Downward Communication:** Information flows from higher levels of management to lower levels (e.g., a CEO sending a memo to all employees).
- **Upward Communication:** Information flows from subordinates to superiors (e.g., a team member providing a status report to their manager).
- **Horizontal (or Lateral/Sideways) Communication:** Information is exchanged between individuals or departments at the same hierarchical level (e.g., the marketing manager and the finance manager coordinating on a project).
- **Diagonal Communication:** Information is exchanged between individuals at different levels in different departments, who have no direct reporting relationship (e.g., a junior accountant communicating with the head of IT).

**Step 2:** The question is looking for a single term that encompasses \*both\* horizontal communication (same level) and diagonal communication (different levels, different departments).

**Step 3:** Downward and Upward communication are vertical and thus incorrect. "Sideways Communication" is typically just another name for horizontal communication and does not include the diagonal aspect. "Crosswise Communication" is a broader term used in management to describe all communication that cuts across the formal vertical and departmental lines, thereby including both horizontal and diagonal flows. It represents the crisscrossing nature of information in a modern organization.

**💡 Quick Tip**

Think of communication flows visually:

- **Upward/Downward** = Vertical (up and down the ladder).
- **Horizontal/Sideways** = Lateral (across the same rung of the ladder).
- **Diagonal** = Slanted (from one rung to a different rung in another ladder).
- **Crosswise** = The general term for any non-vertical flow (both horizontal and diagonal).

**23. What is defined as "performing a dangerous or wanton act that may cause injury but without the intention to cause injury"?**

- (A) Criminal rashness

- (B) Criminal negligence
- (C) Civil negligence
- (D) Contributory negligence

**Correct Answer:** (A) Criminal rashness

**Solution:**

**Step 1:** In legal terminology, particularly in criminal law, there is a crucial distinction between these two concepts. **Rashness** (or recklessness) involves a conscious and unjustified risk-taking. The individual foresees the dangerous consequences of their act but proceeds anyway, hoping they won't occur. **Negligence** involves a failure to exercise due care and caution. The individual does not foresee the dangerous consequences, but a reasonable person in their position would have.

**Step 2:** The key phrases are "dangerous or wanton act" and "without the intention to cause injury." The term "wanton" implies a conscious disregard for the safety of others. This points to a state of mind where the person is aware of the risk but decides to act anyway. This aligns perfectly with the definition of rashness. The second phrase clarifies that there was no specific intent to harm, distinguishing it from assault or murder.

**Step 3:** Based on the analysis, **Criminal rashness** is the most accurate term. It captures the element of conscious risk-taking without the specific intent to cause the resulting harm. Criminal negligence involves a gross lack of care but not necessarily a conscious appreciation of the risk. Civil and contributory negligence are concepts primarily related to non-criminal tort law and legal defenses.

 Quick Tip

Remember the key difference: **Rashness** = I know this is dangerous, but I'll do it anyway. **Negligence** = I should have known this was dangerous, but I didn't pay attention.

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**24. How many essential elements of PHC (Primary Health Care) has been described by the WHO?**

- (A) Six
- (B) Seven
- (C) Eight
- (D) Nine

**Correct Answer:** (C) Eight

**Solution:**

**Step 1:** The modern concept of Primary Health Care (PHC) and its core principles were formally established at the landmark International Conference on Primary Health Care, held in Alma-Ata (now Almaty, Kazakhstan) in 1978. This declaration, sponsored by the WHO and UNICEF, aimed to achieve "Health for All."

**Step 2:** The Alma-Ata Declaration identified at least eight essential components that should form the foundation of primary health care in any country. These elements are often remembered by the acronym **ELEMENTS**:

- **E**ducation concerning prevailing health problems and their prevention/control.
- **L**ocally endemic disease prevention and control.
- **E**xpanded programme of immunization against major infectious diseases.
- **M**aternal and child health care, including family planning.
- **E**ssential drugs provision.
- **N**utrition promotion (adequate food supply and proper nutrition).
- **T**reatment of common diseases and injuries.
- **S**afe water supply and basic sanitation.

**Step 3:** Counting the components listed in this foundational document, we arrive at a total of eight essential elements of Primary Health Care.

 **Quick Tip**

Use the mnemonic **ELEMENTS** to easily recall the eight essential components of Primary Health Care as laid out in the Alma-Ata Declaration.

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**25. The charitable or not-for-profit hospitals are exempted from which Act?**

- (A) Industrial Disputes Act, 1948
- (B) Payment of Bonus Act, 1956
- (C) Minimum Wages Act, 1948
- (D) Payment of Wages Act, 1936

**Correct Answer:** (B) Payment of Bonus Act, 1956

**Solution:**

**Step 1:** The Payment of Bonus Act, 1965 (not 1956, though the concept is the same) is an Indian labour law that provides for the payment of a bonus to employees in certain establishments. Crucially, the bonus is calculated based on the profits or the production/productivity of the establishment. The fundamental principle is profit-sharing.

**Step 2:** A charitable or not-for-profit hospital is, by its legal and operational definition, an organization that does not work for the motive of making a profit. Any financial surplus (revenue exceeding expenses) is legally required to be reinvested back into the organization to support its mission, not distributed to owners or shareholders.

**Step 3:** Since the Payment of Bonus Act is predicated on the existence of profits to be shared, it logically does not apply to organizations that are established as non-profit entities. Therefore, charitable hospitals are exempted from this specific Act. The other acts listed—concerning industrial disputes, minimum wages, and timely payment of wages—relate to fundamental worker rights and apply to nearly all employers, regardless of their profit status.

💡 Quick Tip

Remember that a "bonus" under this act is tied to profit. If an organization is "not-for-profit," it logically follows that an act based on profit sharing would not apply.

**26. Which of the following is the entry point into the health system in India?**

- (A) Primary care
- (B) Secondary care
- (C) Tertiary care
- (D) Quaternary care

**Correct Answer:** (A) Primary care

**Solution:**

**Step 1:** India's public health system is structured as a tiered pyramid to provide care from the community level up to highly specialized centers.

- **Primary care** forms the broad base of the pyramid. It is delivered through a network of Sub-Centres and Primary Health Centres (PHCs) in rural areas, and Urban PHCs in cities. Its purpose is to be the first point of contact for the community.
- **Secondary care** is the next level up, where patients are referred for conditions that cannot be managed at the primary level. This includes Community Health Centres (CHCs), Sub-Divisional Hospitals, and District Hospitals.
- **Tertiary care** is the apex of the system, providing super-specialist care. This level includes medical colleges and specialized national institutes.

**Step 2:** The term "entry point" refers to the level at which a citizen is intended to first interact with the health system for their basic health needs. By design, the extensive network of primary care facilities is meant to serve this function, acting as the gateway to the entire system. It handles common health issues and refers patients to higher levels of care when necessary.

💡 Quick Tip

Think of the health system as a funnel. The wide opening at the top where everyone enters is Primary Care. As care needs become more complex, patients are referred down the funnel to the narrower, more specialized Secondary and Tertiary levels.

**27. The clinics which are located away from the main hospital OPD, to serve defined concentration of populations, but having links with the main hospital are termed as:**

- (A) Filter Clinics
- (B) Selective Clinics
- (C) Resource Clinics

(D) Satellite Clinics

**Correct Answer:** (D) Satellite Clinics

**Solution:**

**Step 1:** The question describes a specific type of healthcare facility with three defining characteristics: 1) It is physically separate ("located away") from the main hospital. 2) It serves a targeted local community ("defined concentration of populations"). 3) It maintains an organizational and clinical connection ("having links") with the parent hospital, likely for referrals and administrative support.

**Step 2:** Let's examine the terms.

- **Filter Clinics:** These are typically located at the entrance of a busy main hospital Out-Patient Department (OPD). Their function is to screen or "filter" patients, directing them to the correct specialty and managing overcrowding. They are not located away from the hospital.
- **Selective Clinics and Resource Clinics:** These are not standard, widely used terms for this specific organizational model.
- **Satellite Clinics:** This term is a perfect fit. Just as a satellite orbits a central planet, a satellite clinic operates in a separate location within the community but remains administratively and clinically tied to the main "parent" hospital. The purpose is to extend the hospital's reach and make care more accessible.

**Step 3:** The term "Satellite Clinic" accurately and commonly describes a facility with the characteristics outlined in the question.

 Quick Tip

The analogy of a satellite is helpful: just as a satellite orbits a central planet while being linked to it, a satellite clinic operates in the community while being organizationally linked to the central hospital.

**28. The space required for uncluttered movement of personnel and materials within the department between various technical work stations, rooms, stores and other auxiliary and administrative areas is termed as \_\_\_\_\_ space.**

- (A) Circulation
- (B) Primary
- (C) Secondary
- (D) Laboratory

**Correct Answer:** (A) Circulation

**Solution:**

**Step 1:** In architecture and facility design, physical space within a building is categorized based on its intended function. This helps in efficient layout planning. The question specifically asks for the term for space dedicated to movement and transit.

**Step 2:** "Circulation space" is the specific architectural term for the areas that facilitate movement from one part of a building to another. This includes corridors, hallways, lobbies, staircases, and elevators. Its primary purpose is to allow the "uncluttered movement of personnel and materials," as stated in the question.

**Step 3:** The other terms describe different functional categories. "Primary space" might refer to the main work areas (like an operating room), "Secondary space" could be support areas (like a utility room), and "Laboratory space" is a specific type of functional area. None of these describe the space \*between\* these areas, which is the role of circulation space.

 Quick Tip

Think of the circulatory system in the body (arteries and veins) which moves blood between organs. In a building, the "circulation space" (corridors) functions similarly, allowing for movement between functional areas (rooms).

---

**29. The term COPD is defined by which of the following options?**

- (A) Chronic Obstructive Pulmonary Disease.
- (B) Coutaneous Obstructive Pulmonary Disease.
- (C) Chronic Occlusive Pulmonary Disease.
- (D) Chronic Obstructive Pediatric Disease.

**Correct Answer:** (A) Chronic Obstructive Pulmonary Disease.

**Solution:**

**Step 1:** COPD is one of the most common acronyms in respiratory medicine. Let's deconstruct it letter by letter to understand its full meaning:

- **C** stands for **Chronic**, which signifies that the disease is long-lasting and persistent, not acute or temporary.
- **O** stands for **Obstructive**, which refers to the primary characteristic of the disease: a blockage or obstruction of airflow from the lungs.
- **P** stands for **Pulmonary**, a medical term that specifies the condition relates to the lungs.
- **D** stands for **Disease**, indicating it is a pathological condition.

**Step 2:** Assembling these components gives the full term: "Chronic Obstructive Pulmonary Disease." This precisely matches option (A). The other options are incorrect because they use inaccurate words: "Coutaneous" refers to the skin, "Occlusive" means blocked but "Obstructive" is the standard term used in this context, and "Pediatric" refers specifically to children, whereas COPD primarily affects adults.

 Quick Tip

When deciphering medical acronyms, focus on the organ system involved. "Pulmonary" points directly to the lungs, helping you eliminate options that don't fit.

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**30. Which department is responsible for processing, sterilizing and dispensing of almost all items of sterile equipment, sets and dressings in the hospital?**

- (A) Central sterile source department (CSSD)
- (B) Central sterile supply department (CSSD)
- (C) Central sterilizing supply department (CSSD)
- (D) Common sterile supply department (CSSD)

**Correct Answer:** (B) Central sterile supply department (CSSD)

**Solution:**

**Step 1:** The question outlines the complete cycle of sterile instrument management in a hospital: receiving used items, cleaning and processing them, sterilizing them to eliminate all microorganisms, storing them in a sterile condition, and dispensing them to various departments like operating rooms and wards as needed.

**Step 2:** This centralized function is critical for infection control and patient safety. The universally accepted and standard name for the department that performs these functions is the Central Sterile Supply Department (CSSD). It acts as the hub for all sterile supplies.

**Step 3:** Let's look at the options. Option (B), "Central sterile supply department," is the most accurate and commonly used official title. "Central" signifies that the function is consolidated in one place for efficiency and quality control. "Sterile" describes the state of the items. "Supply" indicates its function of providing these items to the rest of the hospital. The other options use slightly incorrect words like "source," "sterilizing" (which is an action, not part of the standard name), or "common."

 **Quick Tip**

The name CSSD is very descriptive: It's **C**entral (one location for the whole hospital), it handles **S**terile items, it **S**upplies them to other departments, and it is a **D**epartment.

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**31. Select the Act that deals with the establishment of pharmacies and drug stores and with the profession of pharmacist.**

- (A) The Pharmacy Act, 1948
- (B) The Pharmacist Act, 1958
- (C) The Pharmacy Act, 1940
- (D) The Pharmacist Act, 1948

**Correct Answer:** (A) The Pharmacy Act, 1948

**Solution:**

**Step 1:** The regulation of drugs and pharmacy in India is governed by a few key pieces of legislation. It's important to distinguish between laws that regulate the professionals and laws that regulate the products.

**Step 2:** The question specifically asks about the law governing the "establishment of pharmacies" and the "profession of pharmacist." This points directly to the legislation that

sets standards for pharmacy education, registers pharmacists, and regulates the practice of the profession itself.

**Step 3:** The Pharmacy Act, 1948 is the principal legislation in India that addresses these matters. It established the Pharmacy Council of India (PCI) and State Pharmacy Councils, which are the regulatory bodies responsible for maintaining the register of pharmacists and overseeing the standards of the pharmacy profession. Therefore, "The Pharmacy Act, 1948" is the correct answer.

#### 💡 Quick Tip

Differentiate between the two main pharmacy laws:

- **Pharmacy Act, 1948:** Regulates the **Profession** (the pharmacist).
- **Drugs and Cosmetics Act, 1940:** Regulates the **Products** (the drugs).

This question is about the profession, so the Pharmacy Act is the answer.

**32. Which term defines the services that include the laundering of linen, storage of clean linen and repair and replacement of all linen in a hospital?**

- (A) Linen and Laundry Service
- (B) Cleaning Service
- (C) Linen remodelling Service
- (D) Washing Service

**Correct Answer:** (A) Linen and Laundry Service

#### **Solution:**

**Step 1:** The question describes a comprehensive management process for all hospital textiles (referred to as "linen," which includes bed sheets, gowns, towels, etc.). This process includes the full lifecycle: washing ("laundering"), storing, mending ("repair"), and inventory management ("replacement").

**Step 2:** The term that best encapsulates all these activities is "Linen and Laundry Service." This standard hospital department name is inclusive of both managing the physical inventory of linen and performing the process of laundering.

**Step 3:** The other options are too narrow or incorrect. "Washing Service" or "Cleaning Service" only describe one part of the function and don't include inventory management like repair and replacement. "Linen remodelling Service" is not a standard term in hospital administration. "Linen and Laundry Service" is the most complete and professionally recognized term.

#### 💡 Quick Tip

The best answer is often the most comprehensive one. "Linen and Laundry Service" covers both the item ("Linen") and the primary process ("Laundry"), as well as all associated management tasks.

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**33. The National Building Code of the ISI suggests how many litres of water per consumer day (LPCD) for hospitals up to 100 beds.**

- (A) 355
- (B) 375
- (C) 400
- (D) 455

**Correct Answer:** (D) 455

**Solution:**

**Step 1:** The National Building Code of India, published by the Bureau of Indian Standards (BIS, formerly ISI), provides a set of guidelines and standards for building construction, including requirements for essential services like water supply.

**Step 2:** The NBC recognizes that different types of buildings have vastly different water needs. Hospitals require a large volume of water for a variety of purposes beyond basic domestic use, including sanitation, sterilization, laundry, laboratories, and kitchen services. The code provides specific per-capita consumption values for planning these systems.

**Step 3:** As per the standards laid out in the National Building Code of India, the recommended water supply for hospitals with up to 100 beds is 455 Litres per Capita per Day (LPCD). This figure accounts for the water needs of patients, staff, and all hospital operations.

 **Quick Tip**

Remember that institutional water requirements, especially for hospitals, are much higher than residential ones (which are around 135 LPCD). The high value of 455 LPCD reflects the diverse and intensive use of water in a healthcare setting.

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**34. A systematic or step by step approach intended to achieve the desired functions of a product, process, system or service at an overall minimum cost without in any way affecting quality, reliability, performance, delivery or safety of environment is termed as ----- engineering.**

- (A) Value
- (B) Critical
- (C) Service
- (D) Systematic

**Correct Answer:** (A) Value

**Solution:**

**Step 1:** The definition describes a structured methodology with a very clear objective: to fulfill the necessary "functions" of something (a product, service, etc.) at the "minimum overall cost." Critically, it specifies that this cost reduction must not compromise essential attributes like "quality, reliability, performance," etc.

**Step 2:** This methodology is the precise definition of Value Engineering (also known as Value Analysis). It is a systematic, function-oriented approach that aims to improve the "value" of a

project or product. In this context, value is defined as the ratio of function to cost. The goal is to maximize this ratio by finding less costly ways to achieve the same or better function.

**Step 3:** The detailed description provided in the question—a systematic approach to achieve function at minimum cost without sacrificing quality—is the textbook definition of Value Engineering. The other terms are either too generic ("Systematic," "Service") or unrelated ("Critical").

 Quick Tip

The core formula for Value Engineering is: **Value = Function / Cost**. The goal is to maximize this ratio, either by improving the function for the same cost or by reducing the cost for the same function.

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**35. Which of the following measures the hardness of water for different salts?**

- (A) parts per million
- (B) parts per trillion
- (C) parts per thousand
- (D) parts per hundred

**Correct Answer:** (A) parts per million

**Solution:**

**Step 1:** Water hardness is a measure of the concentration of dissolved multivalent cations in water. In practice, this primarily refers to the concentration of calcium ( $\text{Ca}^{2+}$ ) and magnesium ( $\text{Mg}^{2+}$ ) ions, which are common mineral salts.

**Step 2:** Because the concentrations of these dissolved minerals in drinking water are relatively low, a proportional unit is used for convenience. The international standard unit is milligrams per litre (mg/L). An equivalent and very commonly used unit is parts per million (ppm). For dilute aqueous solutions like drinking water, 1 mg/L is essentially equal to 1 ppm.

**Step 3:** Among the choices given, "parts per million" is the standard and correct magnitude for expressing water hardness. "Parts per trillion" (ppt) is used for measuring extremely trace amounts of substances like pesticides or heavy metals. "Parts per thousand" (ppt, but distinct from trillion) and "parts per hundred" (percent) represent much higher concentrations that are not relevant for typical water hardness levels.

 Quick Tip

For most water quality parameters like hardness, salinity, and dissolved solids, **ppm (parts per million)** or its equivalent **mg/L (milligrams per litre)** is the standard unit of measurement.

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**36. Which inventory management means that inventory supplies are delivered as soon as needed by the health care organization, the prescribing doctor, or the patient?**

- (A) JIT inventory management
- (B) MIT inventory management
- (C) CIT inventory management
- (D) AIT inventory management

**Correct Answer:** (A) JIT inventory management

**Solution:**

**Step 1:** The key phrase in the question is that supplies are "delivered as soon as needed." This describes a pull-based inventory system where the goal is to minimize the amount of inventory held in storage by timing deliveries to coincide precisely with consumption.

**Step 2:** JIT is the acronym for "Just-In-Time." This is a well-known inventory management strategy pioneered in Japan. Its primary objective is to increase efficiency and decrease waste by receiving goods only as they are needed in the production process or for distribution, thereby reducing inventory holding costs.

**Step 3:** The principle of delivering supplies exactly when they are needed is the very definition of Just-In-Time (JIT) management. The other acronyms (MIT, CIT, AIT) are not standard, recognized terms for inventory management systems. Therefore, JIT is the correct answer.

 Quick Tip

The name "Just-In-Time" is self-explanatory. The goal is for supplies to arrive not too early (which increases storage costs) and not too late (which stops production), but "just in time."

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**37. Michael Porter competitive strategies take into account how many forces for understanding the underlying fundamentals of competition?**

- (A) Two
- (B) Three
- (C) Four
- (D) Five

**Correct Answer:** (D) Five

**Solution:**

**Step 1:** Michael Porter, a renowned professor at Harvard Business School, introduced a powerful framework in 1979 to analyze the competitive landscape of an industry. This model helps businesses understand the intensity of competition and assess the attractiveness and potential profitability of an industry.

**Step 2:** The framework is famously known as "Porter's Five Forces." These five distinct forces collectively determine the nature of competition within an industry:

1. **Threat of New Entrants:** The ease with which new companies can enter the market and become competitors.
2. **Bargaining Power of Buyers:** The ability of customers to put the firm under pressure, which affects the customer's sensitivity to price changes.

3. **Bargaining Power of Suppliers:** The ability of suppliers to control the price and availability of inputs (materials, labor, etc.).
4. **Threat of Substitute Products or Services:** The extent to which different products or services can be used in place of a company's offerings.
5. **Rivalry Among Existing Competitors:** The intensity of competition from direct rivals already in the industry.

**Step 3:** As explicitly stated in the model's name and its components, there are a total of five forces that must be taken into account.

 **Quick Tip**

The name of the model, "Porter's Five Forces," directly gives away the answer. Memorizing the five forces themselves is key to understanding business strategy.

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**38. CT is a specialised X-ray examination. CT stands for?**

- (A) Computed Tonography
- (B) Computer Tomography
- (C) Computed Totalgraphy
- (D) Computer Totalgrdphy

**Correct Answer:** (B) Computer Tomography

**Solution:**

**Step 1:** The acronym CT refers to a powerful medical imaging technique that combines X-rays with advanced computing.

- **C** stands for **Computer** or **Computed**, highlighting the essential role a computer plays in processing the data.
- **T** stands for **Tomography**. This term originates from the Greek words "tomos," meaning "slice" or "section," and "graphein," meaning "to write." Therefore, tomography is the process of creating a detailed image of a single plane or "slice" of an object.

**Step 2:** Combining the parts, the full term is Computer Tomography or Computed Tomography. This technology uses a computer to process multiple X-ray measurements taken from different angles to produce cross-sectional images of the body. Option (B) is the correct expansion. The other options are incorrect; "Tonography" is a procedure to measure pressure inside the eye, and "Totalgraphy" is not a recognized medical term.

 **Quick Tip**

Remember that "Tomo" means "slice". A CT scan creates many "slice" images of the body and a computer puts them together to form a detailed picture.

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**39. Which of the following is not the technique of management and control of inventories?**

- (A) ABC analysis
- (B) VED analysis
- (C) Economic order quantity
- (D) BCG analysis

**Correct Answer:** (D) BCG analysis

**Solution:**

**Step 1:** Let's clarify the purpose of each tool mentioned.

- **ABC analysis:** This is a core **inventory management** technique. It categorizes inventory items into three classes (A, B, and C) based on their annual consumption value. Class A items are high-value and require tight control, while Class C items are low-value and need less oversight.
- **VED analysis:** This is another **inventory management** technique, often used for spare parts in hospitals. It classifies items based on their criticality to the organization's function: **V**ital, **E**ssential, and **D**esirable.
- **Economic Order Quantity (EOQ):** This is a fundamental formula used in **inventory management** to calculate the ideal order quantity that minimizes the total costs associated with ordering and holding inventory.
- **BCG analysis (BCG Matrix):** This is a high-level **corporate strategy** tool developed by the Boston Consulting Group. It is used to analyze a company's portfolio of products or business units based on their market share and market growth rate, categorizing them as Stars, Cash Cows, Question Marks, or Dogs. It is not used for managing physical stock levels.

**Step 2:** From the definitions, it is clear that ABC analysis, VED analysis, and EOQ are all specific tools used for the management and control of physical inventory. The BCG analysis, in contrast, is used for strategic portfolio management, a completely different business function.

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 **Quick Tip**

Associate techniques with their purpose:

- **ABC/VED/EOQ** → Managing **Items** in a warehouse.
- **BCG Matrix** → Managing **Businesses** in a corporate portfolio.

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**40. The infection that develops in admitted patients after more than 48 hours of hospitalization is termed as \_\_\_\_\_ infection.**

- (A) Cytotoxic

- (B) Comprehensive
- (C) Nosocomial
- (D) Community

**Correct Answer:** (C) Nosocomial

**Solution:**

**Step 1:** The definition outlines three specific criteria for the infection: 1) it occurs in a patient who has been admitted to a hospital, 2) it was not present or incubating at the time of admission, and 3) it develops after a specific time frame, typically more than 48 hours after admission.

**Step 2:** The term **Nosocomial** is derived from the Greek words "nosos" (disease) and "komeion" (to take care of), and it specifically refers to something originating in a hospital. A nosocomial infection, also commonly known as a Hospital-Acquired Infection (HAI), is precisely defined as an infection contracted within a healthcare setting. The 48-hour rule is a standard epidemiological benchmark used to distinguish it from a community-acquired infection that the patient may have been incubating when they arrived.

**Step 3:** "Nosocomial" is the correct medical term that fits all the criteria. In contrast, a "Community" acquired infection is one contracted outside the hospital. "Cytotoxic" means harmful to cells, and "Comprehensive" is an unrelated adjective.

 Quick Tip

Remember the time window: If symptoms of an infection start **within 48 hours** of admission, it's likely community-acquired. If they start **after 48 hours**, it's likely hospital-acquired (nosocomial).

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**41. Which Act provides a simple, speedy and inexpensive redressal for consumer grievances relating to defective goods, deficient services and unfair trade practices?**

- (A) Customer Protection Act
- (B) Consumer Protection Act
- (C) Consumer Grievances Act
- (D) Service Protection Act

**Correct Answer:** (B) Consumer Protection Act

**Solution:**

**Step 1:** The question describes a law designed to safeguard the rights of consumers. Its key features are providing a mechanism for resolving complaints ("grievances") that is straightforward ("simple"), fast ("speedy"), and affordable ("inexpensive") for the average citizen.

**Step 2:** The primary and landmark legislation in India created specifically for this purpose is the **Consumer Protection Act**. Originally enacted in 1986 and subsequently updated (e.g., in 2019), its central feature is the establishment of a three-tier quasi-judicial system

(Consumer Dispute Redressal Commissions at the District, State, and National levels) to hear and resolve consumer complaints.

**Step 3:** The official and universally recognized name of this law is the "Consumer Protection Act." The other options are incorrect variations of the official title.

 Quick Tip

The Consumer Protection Act established the three-tier system of consumer courts in India: District, State, and National commissions, designed specifically for the "simple, speedy and inexpensive redressal" mentioned in the question.

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**42. Which committee will have the responsibility for monitoring the occurrence of hospital infection and recommend corrective action?**

- (A) Hospital Control Committee
- (B) Infection Monitoring Committee
- (C) Hospital Monitoring Committee
- (D) Infection Control Committee

**Correct Answer:** (D) Infection Control Committee

**Solution:**

**Step 1:** The question outlines a committee with a dual role: first, to actively track and watch for hospital-acquired infections ("monitoring the occurrence"), and second, to develop and suggest measures to prevent and manage these infections ("recommend corrective action"). This involves both surveillance and intervention.

**Step 2:** In hospital administration and healthcare quality management, the standard, universally recognized name for the multidisciplinary body tasked with this comprehensive role is the **Infection Control Committee (ICC)**, or sometimes the Hospital Infection Control Committee (HICC). Its name directly reflects its primary purpose: to control infections.

**Step 3:** The name "Infection Control Committee" perfectly encapsulates the functions of both monitoring and taking corrective action to control the spread of infections within a hospital setting, making it the correct answer. The other names are either too generic or not standard terminology.

 Quick Tip

In hospital administration, the names of committees often directly reflect their purpose. A committee for controlling infections is logically named the "Infection Control Committee."

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**43. Which Act implemented in 1996 includes provisions related to insurance, privacy, security, transactional, and code sets?**

- (A) HIPAA

- (B) NIPAA
- (C) LIPAA
- (D) RIPAA

**Correct Answer:** (A) HIPAA

**Solution:**

**Step 1:** The question points to a landmark piece of United States legislation passed in 1996 that fundamentally changed how health information is handled. The key provisions mentioned—insurance, privacy, security—are the pillars of this act.

**Step 2:** **HIPAA** is the acronym for the **Health Insurance Portability and Accountability Act of 1996**. This act has two main titles:

- **Title I (Portability):** Protects health insurance coverage for workers and their families when they change or lose their jobs.
- **Title II (Accountability):** This title, known as the Administrative Simplification provisions, is the most famous part. It requires the establishment of national standards for electronic health care transactions and code sets, and it created the renowned **Privacy Rule** and **Security Rule** to protect the confidentiality and integrity of individually identifiable health information.

The description in the question perfectly matches the scope of HIPAA. The other acronyms are not names of relevant US federal acts.

💡 Quick Tip

When you see "patient privacy," "health data security," and "1996" together, the answer is almost certainly **HIPAA**. It is the foundational law for health information privacy in the United States.

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**44. The matrix designed to apply the traditional public health domains of host, agent, and disease to primary, secondary, and tertiary injury factors is termed as \_\_\_\_\_ matrix.**

- (A) Headon
- (B) Seddon
- (C) Haddon
- (D) Headdon

**Correct Answer:** (C) Haddon

**Solution:**

**Step 1:** In the field of public health, a specific conceptual framework was developed to apply traditional epidemiological principles to the study of injuries, treating them not as random "accidents" but as predictable and preventable events.

**Step 2:** The **Haddon Matrix**, created by Dr. William Haddon, is this framework. It is a grid that analyzes an injury event by looking at two dimensions simultaneously:

- **The Rows (Time Phases):** These represent the sequence of the injury event and correspond to levels of prevention.
  - **Pre-event:** Factors that determine if the event happens (Primary Prevention).
  - **Event:** Factors that determine the severity of injury during the event (Secondary Prevention).
  - **Post-event:** Factors that determine the outcome after the injury occurs (Tertiary Prevention).
- **The Columns (Epidemiological Factors):** These represent the classic public health domains.
  - **Host:** The person at risk of injury.
  - **Agent:** The object or energy causing the injury (e.g., a car, a fire).
  - **Environment:** The physical and social setting where the event occurs.

**Step 3:** This powerful tool for analyzing and preventing injuries is correctly known as the Haddon Matrix. The other spellings are incorrect.

 Quick Tip

Associate the **Haddon Matrix** with **Injury Prevention**. It's the go-to model for analyzing events like car crashes by looking at factors before, during, and after the crash for the driver, vehicle, and road environment.

**45. Which tag indicates a seriously injured patient who requires some medical stabilization in the field prior to transportation, but whose life is not immediately threatened?**

- (A) Red tag
- (B) Yellow tag
- (C) Green tag
- (D) Orange tag

**Correct Answer:** (B) Yellow tag

**Solution:**

**Step 1:** Triage is the process of rapidly sorting casualties in a mass casualty incident to prioritize treatment for those who need it most urgently. Color-coded tags are used to communicate a patient's priority level quickly and effectively.

**Step 2:** The standard international triage system (like START - Simple Triage and Rapid Treatment) uses four primary colors:

- **Red Tag (Immediate):** Priority 1. These patients have life-threatening injuries but have a high chance of survival if they receive immediate medical care (e.g., uncontrolled bleeding, airway obstruction).

- **Yellow Tag (Delayed):** Priority 2. These patients have serious injuries that require medical attention, but their condition is currently stable and not immediately life-threatening. They can wait for treatment without dying. The description in the question—"seriously injured... but whose life is not immediately threatened"—is the exact definition for this category.
- **Green Tag (Minor):** Priority 3. These are the "walking wounded" with minor injuries. They are stable and can wait the longest for medical care.
- **Black Tag (Deceased/Expectant):** Priority 0. These patients are either already deceased or have catastrophic, unsurvivable injuries. Resources are not allocated to them initially.

**Step 3:** The Yellow tag is the correct indicator for a patient who is seriously injured but can have their definitive treatment delayed.

#### 💡 Quick Tip

Think of triage like a traffic light:

- **Red:** Stop everything and treat now!
- **Yellow:** Caution, needs treatment soon, but can wait.
- **Green:** Go, patient is stable and can move on their own.

46. Arrange the definition of epidemiology given by different authors in a chronological order starting from oldest to the latest definition.
- A. That branch of medical science which treats epidemics (Parkin).
  - B. The study of disease, any disease, as a mass phenomenon (Greenwood).
  - C. The science of the mass phenomenon of infectious diseases (Frost).
  - D. The study of the distribution and determinants of disease frequency in man (MacMahon).
- (A) A, B, C, D
  - (B) A, C, B, D
  - (C) B, A, D, C
  - (D) C, B, D, A

**Correct Answer:** (B) A, C, B, D

#### **Solution:**

**Step 1:** The definition of epidemiology has broadened over time, reflecting the field's expanding scope and scientific rigor. The progression generally moved from a narrow focus on outbreaks to a comprehensive study of all health-related states in populations. The key stages are: focus on epidemics -> focus on infectious diseases -> focus on all diseases -> focus on distribution and determinants.

**Step 2:** Let's place each author's definition along this timeline.

- **(A) Parkin (1873):** His definition, "treats epidemics," is the earliest and most restrictive, focusing only on epidemic outbreaks.

- **(C) Frost (circa 1927):** He advanced the definition to the "science of the mass phenomenon of infectious diseases." This is broader than just epidemics but is still limited to infectious causes.
- **(B) Greenwood (1934):** He further expanded the scope by stating it is the study of "any disease, as a mass phenomenon." This was a crucial step that opened the door for epidemiologists to study chronic and non-infectious diseases.
- **(D) MacMahon (1960):** His definition, "the study of the distribution and determinants of disease frequency in man," is the foundation of the modern understanding. It introduces the core concepts of distribution (who, where, when) and determinants (why), making epidemiology a rigorous analytical science.

**Step 3:** Based on this historical and conceptual evolution, the correct chronological sequence is Parkin (A) → Frost (C) → Greenwood (B) → MacMahon (D).

#### 💡 Quick Tip

Follow the conceptual expansion of epidemiology to find the chronological order:

1. Starts with **epidemics** (Parkin).
2. Becomes a science of **infectious diseases** (Frost).
3. Broadens to **any disease** (Greenwood).
4. Becomes a rigorous study of **distribution and determinants** (MacMahon).

**47. Control programmes are designed to meet the unique needs of each country's health care system, its resources and priorities. Arrange the steps involved from start to end sequentially:**

- A. Establishing Priorities**
- B. Problem Definition**
- C. Considering Strategies**
- D. Setting Objectives**

Choose the correct answer from the options given below: (A) A, B, C, D

(B) B, A, D, C

(C) B, D, A, C

(D) C, B, D, A

**Correct Answer:** (B) B, A, D, C

**Solution:**

**Step 1:** The planning of any public health program follows a rational, sequential process that moves from broad understanding to specific actions. The goal is to ensure that interventions are well-conceived, targeted, and effective.

**Step 2:** Let's arrange the given steps according to this logical flow.

1. **(B) Problem Definition:** Before anything else can be done, the health issue must be thoroughly defined and analyzed. This involves understanding its magnitude, severity, and causes. This is the foundational first step.
2. **(A) Establishing Priorities:** No program can tackle every aspect of a problem at once due to limited resources. After defining the problem, the next logical step is to prioritize which specific components or at-risk groups to focus on.
3. **(D) Setting Objectives:** Once priorities are clear, you must define what you aim to achieve. This involves setting specific, measurable, achievable, relevant, and time-bound (SMART) objectives. Objectives translate priorities into concrete targets.
4. **(C) Considering Strategies:** With clear objectives in place, the final step in this sequence is to brainstorm and evaluate different approaches or "strategies" to determine the most effective and feasible way to achieve those objectives.

**Step 3:** The correct and logical sequence for planning a control programme is B (Problem Definition) → A (Establishing Priorities) → D (Setting Objectives) → C (Considering Strategies).

#### Quick Tip

Think of program planning like planning a journey: 1. **Define the problem** (Where are you starting from?). 2. **Prioritize** (What's the most important destination?). 3. **Set objectives** (What landmarks do you want to reach along the way?). 4. **Consider strategies** (How will you travel - by car, train, or plane?).

48. Nalgonda technique for defluoridation of water involves the following steps. Arrange them sequentially from first to last step.

- A. Addition of two chemicals (lime and alum)
- B. Sedimentation
- C. Flocculation
- D. Filtration

Choose the correct answer from the options given below: (A) A, B, C, D

(B) A, C, B, D

(C) B, A, D, C

(D) C, B, D, A

**Correct Answer:** (B) A, C, B, D

#### **Solution:**

**Step 1:** The Nalgonda technique is a chemical water treatment process designed specifically to remove excess fluoride from drinking water. It operates on the principles of coagulation, flocculation, and sedimentation.

**Step 2:** The process follows a standard sequence for chemical water purification.

1. **(A) Addition of two chemicals (lime and alum):** The process begins by adding the required quantities of alum (a coagulant) and lime (to ensure adequate alkalinity for the

reaction) to the fluoride-contaminated water. This is followed by rapid mixing to dissolve and disperse the chemicals.

2. **(C) Flocculation:** After the rapid mix, the water is stirred slowly and gently. This allows the alum to react and form sticky, web-like precipitates called "flocs." These flocs attract and trap the fluoride ions, as well as other suspended impurities.
3. **(B) Sedimentation:** The stirring is stopped, and the water is left undisturbed. The flocs, now heavy with trapped fluoride and impurities, slowly settle to the bottom of the container under gravity, forming a sludge layer.
4. **(D) Filtration:** After sedimentation, the clear, defluoridated water at the top is carefully separated from the sludge, often by decanting or passing it through a simple filter to remove any remaining fine particles.

**Step 3:** The correct operational sequence is A (Add chemicals) → C (Form flocs) → B (Let flocs settle) → D (Separate clear water).

 **Quick Tip**

Remember the standard sequence for water purification by coagulation: 1. Add Chemicals, 2. Mix to form Flocs (Flocculation), 3. Let them Settle (Sedimentation), 4. Separate the clear water (Filtration/Decantation).

**49. Arrange the following steps in a sequential manner from beginning to end for the biomedical waste management processes.**

- A. Segregation**
- B. Packaging**
- C. Transportation**
- D. Storage**

Choose the correct answer from the options given below: (A) A, B, C, D

(B) A, C, B, D

(C) B, A, D, C

(D) C, B, D, A

**Correct Answer:** (A) A, B, C, D

**Solution:**

**Step 1:** Safe management of biomedical waste follows a strict, logical pathway from the point of generation to its final disposal. This process is crucial for preventing injury and infection. The question lists the initial steps in this chain.

**Step 2:** Let's arrange the steps in the order they must occur.

1. **(A) Segregation:** This is the first and most critical step. Waste must be sorted into different categories (e.g., infectious, sharps, general) at the exact location where it is generated (e.g., patient bedside, laboratory). Proper segregation is the foundation of the entire system.

2. **(B) Packaging:** Immediately after segregation, the sorted waste must be placed into the appropriate, designated color-coded bags or puncture-proof containers.
3. **(C) Transportation:** Once packaged, the waste is safely transported from the point of generation to a central, secure storage area within the healthcare facility.
4. **(D) Storage:** The collected waste is held in a dedicated, secure storage area for a limited time before it is transported off-site for final treatment and disposal.

**Step 3:** While transportation and storage are closely linked, the sequence A (Segregation) → B (Packaging) → C (Transportation) → D (Storage) represents the most logical and standard operational flow. You must segregate before you package, and package before you transport it to storage.

 **Quick Tip**

The golden rule of biomedical waste management is: **Segregation at Source**. Everything else follows from this first crucial step. You must sort it before you can bag it, move it, or store it.

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**50. Arrange the four stages in the life cycle of mosquito from the first stage to the last stage.**

- A. Adult
- B. Larva
- C. Egg
- D. Pupa

Choose the correct answer from the options given below: (A) A, B, C, D

(B) A, C, B, D

(C) B, A, D, C

(D) C, B, D, A

**Correct Answer:** (D) C, B, D, A

**Solution:**

**Step 1:** Mosquitoes are insects that undergo complete metamorphosis, which means their life cycle consists of four morphologically distinct stages: an egg stage, a larval stage, a pupal stage, and an adult stage.

**Step 2:** The life cycle progresses in a fixed biological sequence.

1. **(C) Egg:** The cycle begins when an adult female mosquito lays her eggs, typically on the surface of stagnant water or in a location that will flood.
2. **(B) Larva:** The egg hatches into a larva (plural: larvae), commonly called a "wiggler." This is an aquatic stage where the organism eats and grows, coming to the surface to breathe.
3. **(D) Pupa:** The larva transforms into a pupa (plural: pupae), commonly called a "tumbler." This is also an aquatic stage, but it is a non-feeding, transitional phase where the organism develops into its adult form.

4. **(A) Adult:** The mature adult mosquito emerges from the pupal casing on the water's surface and flies away to feed and reproduce, starting the cycle anew.

**Step 3:** The correct developmental sequence for a mosquito is Egg → Larva → Pupa → Adult, which corresponds to the letter sequence C → B → D → A.

 **Quick Tip**

Remember that the first three stages of a mosquito's life (Egg, Larva, Pupa) are aquatic. This is why controlling stagnant water is the most effective way to prevent mosquito breeding.

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**51. Arrange the levels of prevention in relation to the natural history of disease.**

**A. Primordial prevention**

**B. Secondary prevention**

**C. Primary prevention**

**D. Tertiary prevention**

Choose the correct answer from the options given below: (A) A, B, C, D

(B) A, C, B, D

(C) B, A, D, C

(D) C, B, D, A

**Correct Answer:** (B) A, C, B, D

**Solution:**

**Step 1:** The levels of prevention are a cornerstone of public health, providing a framework for interventions at different stages of a disease's development, from before risk factors exist to managing an established illness.

**Step 2:** The levels are ordered based on the earliest possible point of intervention in the natural history of a disease.

1. **(A) Primordial prevention:** This is the earliest level. It aims to prevent the emergence of risk factors in the first place, often through broad, population-wide policies (e.g., creating walkable cities to promote physical activity and prevent obesity from ever becoming a widespread issue).
2. **(C) Primary prevention:** This level acts on individuals who are at risk for a disease but do not yet have it. The goal is to prevent the disease process from starting (e.g., immunizing a child against measles, advising a smoker to quit to prevent lung cancer).
3. **(B) Secondary prevention:** This level focuses on early detection. It aims to identify and treat a disease at its earliest, often asymptomatic, stages to slow or halt its progression (e.g., mammography to detect breast cancer, screening for high blood pressure).
4. **(D) Tertiary prevention:** This is the final level. It is implemented once a disease is established and symptomatic. The goal is to reduce the impact of the disease, prevent complications, and provide rehabilitation to improve the patient's quality of life (e.g., physical therapy after a stroke, managing diabetes to prevent blindness).

**Step 3:** The correct sequence, moving from the earliest to the latest point of intervention, is Primordial → Primary → Secondary → Tertiary, which corresponds to the letter sequence A → C → B → D.

💡 Quick Tip

Think of the timeline of disease:

- **Primordial:** Prevent risk factors.
- **Primary:** Prevent disease onset (in those with risk factors).
- **Secondary:** Screen for early disease.
- **Tertiary:** Soften the impact of existing disease.

**52. The Government of India has introduced a series of programmes to address maternal and newborn health. Arrange the major milestones in chronological order from oldest to new.**

- A. Child Survival and Safe Motherhood Programme**
- B. National Health Mission**
- C. National Rural Health Mission**
- D. India Newborn Action Plan**

Choose the correct answer from the options given below: (A) A, B, C, D

(B) A, C, B, D

(C) B, A, D, C

(D) C, B, D, A

**Correct Answer:** (B) A, C, B, D

**Solution:**

**Step 1:** To arrange these programs chronologically, we need to identify the year each was launched. These initiatives represent an evolution in India's public health strategy for maternal and child health.

**Step 2:** Let's establish the timeline for these key milestones.

1. **(A) Child Survival and Safe Motherhood (CSSM) Programme:** This was an early, integrated program focusing on key interventions for maternal and child health. It was launched in **1992**.
2. **(C) National Rural Health Mission (NRHM):** This was a transformative, large-scale mission to strengthen the entire public health infrastructure in rural India, with a strong focus on improving maternal and child health outcomes. It was launched in **2005**.
3. **(B) National Health Mission (NHM):** In **2013**, the government expanded the scope of the successful NRHM to include urban areas as well. The overarching program was renamed the National Health Mission (NHM), comprising both the NRHM and the newly launched National Urban Health Mission (NUHM).

4. **(D) India Newborn Action Plan (INAP):** This was a highly focused strategic plan launched in **2014** to specifically accelerate the reduction of newborn mortality and stillbirths, aligning with global goals.

**Step 3:** Based on the launch years, the correct chronological order from oldest to newest is A (1992) → C (2005) → B (2013) → D (2014).

💡 Quick Tip

Remember the progression: The focus started with specific programs like CSSM, evolved into a massive system-strengthening mission for rural areas (NRHM), expanded to cover the whole nation (NHM), and then developed highly focused action plans (INAP).

**53. Arrange in chronological order from oldest to new, the notable hospitals established in the western world in the ancient times.**

- A. Bartholomew's Hospital
- B. Bellevue Hospital
- C. Pennsylvania Hospital
- D. Massachusetts Hospital

Choose the correct answer from the options given below: (A) A, B, C, D

(B) A, C, D, B

(C) B, A, D, C

(D) C, B, D, A

**Correct Answer:** (B) A, C, D, B

**Solution:**

**Step 1:** To correctly sequence these hospitals, we must identify their founding years. The list includes one very old European hospital and three of the earliest hospitals in the United States.

**Step 2:** Let's determine the establishment date for each institution.

1. **(A) St Bartholomew's Hospital (London, UK):** Founded in the year **1123**, 'Barts' is one of Europe's oldest hospitals and is by far the most ancient on this list, originating in the medieval period.
2. **(C) Pennsylvania Hospital (Philadelphia, USA):** Co-founded in **1751** by Benjamin Franklin and Dr. Thomas Bond, this was the first incorporated hospital in the American colonies, marking a major milestone in American medicine.
3. **(D) Massachusetts General Hospital (Boston, USA):** This renowned hospital was founded in **1811**, making it the third-oldest general hospital in the United States and a key institution in the early development of American healthcare.
4. **(B) Bellevue Hospital (New York, USA):** Although its roots can be traced to a poorhouse founded in 1736, its establishment as a formal municipal hospital and a key part of New York's public health system occurred later. Its major development and recognition as a modern hospital are often dated to its charter in **1825**.

**Step 3:** Arranging these institutions by their founding dates from the oldest to the newest gives the sequence: A (1123) → C (1751) → D (1811) → B (1825).

 Quick Tip

When dealing with historical institutions, remember that European establishments like St Bartholomew's in London often have much earlier founding dates (medieval period) compared to even the oldest institutions in the United States (colonial period).

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**54. Arrange the steps in sequential manner as followed for Programme Evaluation and Review Technique (PERT).**

**A. Planning**

**B. Organising**

**C. Scheduling**

**D. Coordinating and Controlling**

Choose the correct answer from the options given below: (A) A, B, C, D

(B) A, C, B, D

(C) B, A, D, C

(D) C, B, D, A

**Correct Answer:** (A) A, B, C, D

**Solution:**

**Step 1:** The listed items—Planning, Organising, Scheduling, Coordinating and Controlling—are fundamental functions of management, particularly within the context of project management. PERT is a specific tool primarily used in the scheduling phase. The question asks to arrange these broader management functions in their logical sequence.

**Step 2:** The standard lifecycle of managing a project follows a clear, logical progression.

1. **(A) Planning:** This is the initial phase. It involves defining the project's goals, scope, and objectives, and identifying the tasks required to achieve them. It answers the "what" and "why."
2. **(B) Organising:** Once the plan is made, the next step is to assemble and structure the necessary resources. This includes assigning roles and responsibilities to the team and allocating materials and budget. It answers the "who" and "how."
3. **(C) Scheduling:** This phase involves creating a detailed timeline. It determines the sequence of tasks and sets deadlines. This is the specific phase where techniques like PERT charts and Gantt charts are employed to map out dependencies and identify the critical path. It answers the "when."
4. **(D) Coordinating and Controlling:** This is the execution phase. It involves overseeing the work, monitoring progress against the schedule and plan, making adjustments as needed, and ensuring that all parts of the project work together smoothly towards the goal.

**Step 3:** The logical flow of these core management functions is A (Planning) → B (Organising) → C (Scheduling) → D (Coordinating and Controlling).

 Quick Tip

Remember the classic management acronym POSDCORB (Planning, Organizing, Staffing, Directing, Coordinating, Reporting, Budgeting). The sequence in the question (A, B, C, D) roughly follows this established management framework.

**55. Arrange the activities at CSSD in a sequential manner for effective maintenance of sterilization.**

**A. Washing, cleaning and drying**

**B. Receipt of used supplies**

**C. Packing**

**D. Sorting**

Choose the correct answer from the options given below: (A) A, B, C, D

(B) B, D, A, C

(C) B, A, D, C

(D) C, B, D, A

**Correct Answer:** (B) B, D, A, C

**Solution:**

**Step 1:** The workflow in a CSSD is strictly unidirectional, moving from a designated "dirty" area to a "clean" area and finally to a "sterile" storage area. This one-way flow is essential to prevent the cross-contamination of clean and sterile items.

**Step 2:** Let's place the listed activities into this logical sequence.

1. **(B) Receipt of used supplies:** The entire process begins in the dirty zone when contaminated, used instruments and other supplies are received from the operating theatres, wards, and other hospital departments.
2. **(D) Sorting:** Once received, the items are carefully sorted and, if necessary, disassembled. This allows for proper inspection and ensures that different types of materials are handled correctly in the subsequent steps.
3. **(A) Washing, cleaning and drying:** After sorting, the items undergo a thorough decontamination process, which includes manual or automated washing and cleaning to remove all biological matter, followed by complete drying. This step makes the items safe to handle.
4. **(C) Packing:** In the clean zone, the decontaminated and dried instruments are inspected for functionality, assembled into sets or individual packages, and then enclosed in specialized packaging material (like wraps or pouches) that will maintain their sterility after the final sterilization process.

**Step 3:** Following this mandatory workflow, the correct sequence of the given steps is B (Receipt) → D (Sorting) → A (Washing) → C (Packing).

💡 Quick Tip

Think of the CSSD workflow like washing dishes: 1. **Receive** dirty dishes. 2. **Sort** them. 3. **Wash** and dry them. 4. **Pack** them away (or in this case, pack for the sterilizer).

56. Select the characteristic features of marketing from the following.

- A. Marketing is a management process.
- B. Marketing offers and exchanges ideas, goods or services.
- C. Marketing involves raising the pricing irrespective of the customer's demand.
- D. Marketing is not anticipating customer's requirements.

Choose the correct answer from the options given below: (A) A and D only

(B) A and B only

(C) A, B and C

(D) B, C and D only

**Correct Answer:** (B) A and B only

**Solution:**

**Step 1:** Marketing is the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large.

- **(A) Marketing is a management process.** This is true. Effective marketing requires systematic planning, implementation, and control of a wide range of activities (like market research, product development, pricing, and promotion) to achieve organizational goals.
- **(B) Marketing offers and exchanges ideas, goods or services.** This is true. The fundamental purpose of marketing is to facilitate a value exchange. A company offers a product or service, and a customer exchanges something of value (usually money) for it.
- **(C) Marketing involves raising the pricing irrespective of the customer's demand.** This is false. Pricing is a critical component of marketing (one of the 4 Ps), but it must be set strategically by considering factors like production costs, competitor pricing, perceived value, and customer demand. Ignoring demand is a recipe for failure.
- **(D) Marketing is not anticipating customer's requirements.** This is false. It is the exact opposite of a core marketing principle. Modern marketing is centered on identifying, anticipating, and satisfying customer needs and wants, often before the customer is even consciously aware of them.

**Step 2:** Statements A and B accurately describe fundamental aspects of marketing.

Statements C and D contradict the basic principles of modern, customer-centric marketing.

**Step 3:** The correct option is the one that includes only the true statements, which are A and B.

💡 Quick Tip

Modern marketing is all about the customer. Any statement that suggests ignoring customer needs or demand (like C and D) is almost certainly a false description of marketing principles.

**57. The basic ethical principles in critical care medicine include:**

- A. Beneficence**
- B. Patient autonomy**
- C. Justice**
- D. Maleficence**

Choose the correct answer from the options given below: (A) A, B and D only

(B) A and C only

(C) A, B and C

(D) B, C and D only

**Correct Answer:** (C) A, B and C

**Solution:**

**Step 1:** The practice of medicine, particularly in complex fields like critical care, is guided by a well-established framework of four core ethical principles that help clinicians navigate difficult decisions.

**Step 2:** Let's define the terms presented in the options.

- **(A) Beneficence:** This is the principle of acting for the benefit of others. In medicine, it means healthcare providers have a duty to act in the best interests of their patients and to promote their well-being. This is a core principle.
- **(B) Patient autonomy:** This principle asserts that competent patients have the right to make their own informed decisions about their medical care, including the right to accept or refuse treatment, without coercion. This is a core principle.
- **(C) Justice:** This principle relates to fairness and equity. In a healthcare context, it refers to the fair distribution of health resources and the obligation to treat similar cases similarly. This is a core principle.
- **(D) Maleficence:** This word means "the act of doing harm." It is the opposite of the actual ethical principle, which is **Non-maleficence**, the duty to "first, do no harm" (primum non nocere). Therefore, maleficence is something to be avoided, not a principle to be followed.

**Step 3:** Beneficence (A), Patient Autonomy (B), and Justice (C) are three of the foundational principles of medical ethics. Maleficence (D) is incorrect as it is the opposite of the fourth principle. Therefore, the correct combination is A, B, and C.

💡 Quick Tip

Remember the four pillars of medical ethics:

1. **Autonomy** (respect the patient's choices)
2. **Beneficence** (do good)
3. **Non-maleficence** (do no harm)
4. **Justice** (be fair)

The list in the question swaps "Non-maleficence" with its opposite, "Maleficence."

**58. The colour coding of waste categories for disposal of biomedical waste include:**

- A. Green**
- B. Yellow**
- C. Blue**
- D. Black**

Choose the correct answer from the options given below: (A) A, B and D only

- (B) B and C only
- (C) A, B, and C
- (D) A, B, C and D

**Correct Answer:** (D) A, B, C and D

**Solution:**

**Step 1:** The Bio-Medical Waste Management Rules in India mandate a specific color-coding system to facilitate the proper segregation of waste at the source. This system has evolved over time, but the colors listed have all been part of the framework.

**Step 2:** Let's look at the role of each color in the segregation scheme, considering both current and historical guidelines.

- **(A) Green:** Used for general, non-contaminated waste, such as kitchen waste, paper, and other biodegradable materials. This is a standard category.
- **(B) Yellow:** This is a critical category for infectious waste, including human anatomical waste, soiled dressings, expired medicines, and chemical waste.
- **(C) Blue:** This is used for contaminated glassware (like medicine vials and ampoules) and metallic body implants. Puncture-proof containers for sharps are also sometimes marked with blue.
- **(D) Black:** In earlier versions of the rules, black was commonly used for general domestic waste. While recent guidelines have streamlined this, often replacing it with green, it remains a recognized color within the history and broader context of the waste management system.

In addition, the current system prominently features Red (for contaminated recyclable plastic waste) and White (for sharps).

**Step 3:** Since Green, Yellow, and Blue are key components of the system, and Black has been historically used and is still recognized, all four colors are relevant to the color-coding scheme for biomedical waste. Therefore, A, B, C, and D are all included.

 **Quick Tip**

Remember the main hazardous categories: **Yellow** for infectious/anatomical waste, **Red** for plastic waste, **White** for sharps, and **Blue** for glassware. **Green** is for general waste.

**59. The Operation theatre is planned on the concept of zones, predicted on the types of activities, patterns of circulation and degree of sterility to be maintained. They are:**

- A. Disposal zone**
- B. Protective zone**
- C. Autonomous zone**
- D. Sterile zone**

Choose the correct answer from the options given below: (A) A, B and D only

- (B) A and B only
- (C) A, B and C
- (D) B, C and D only

**Correct Answer:** (A) A, B and D only

**Solution:**

**Step 1:** The design of a modern Operation Theatre (OT) complex is based on a strict zoning policy to control the flow of people and materials, progressively increasing the level of cleanliness to minimize the risk of surgical site infections.

**Step 2:** The widely accepted model divides the OT complex into four distinct zones:

1. **Protective Zone (Outer Zone):** This is the unrestricted entrance to the OT complex where patients are received and staff can enter in street clothes. It connects the OT to the rest of the hospital.
2. **Clean Zone (Semi-restricted Zone):** This is a transitional area. It includes pre-operative holding areas, storage for clean supplies, and staff changing rooms. Access requires changing into scrubs and wearing a cap.
3. **Sterile Zone (Restricted Zone):** This is the area of highest sterility, including the operating rooms and scrub stations. Access requires full surgical attire, including masks.
4. **Disposal Zone (Dirty Zone):** This is typically a dedicated corridor or exit path used for the removal of all used instruments, soiled linen, and biomedical waste from the operating rooms to prevent contamination of the clean areas.

**Step 3:** The options provided include (A) **Disposal zone**, (B) **Protective zone**, and (D) **Sterile zone**, all of which are standard, integral parts of the OT zoning concept. The term

(C) **Autonomous zone** is not a standard designation in OT design. Therefore, A, B, and D are the correct components.

💡 Quick Tip

Think of the OT zones as a series of airlocks with increasing levels of cleanliness: you start in the **Protective** zone, move to the **Clean** zone, then the ultra-clean **Sterile** zone, and exit with used materials through the **Disposal** zone.

**60. High efficiency particulate air (HEPA) filters have the following characteristic features:**

- A. They are dry type filter.**
- B. Non-reusable filter.**
- C. Remove 99.9 per cent of airborne particles.**
- D. Remove dust, pollen, mold and bacteria.**

Choose the correct answer from the options given below: (A) A, B and D only

(B) A and B only

(C) A, B, C and D

(D) B, C and D only

**Correct Answer:** (C) A, B, C and D

**Solution:**

**Step 1:** A HEPA filter is a type of pleated mechanical air filter. It is an acronym for "high-efficiency particulate air [filter]". This type of air filter can theoretically remove at least 99.97

**Step 2:** Let's verify each of the listed features.

- **(A) They are dry type filter.** This is true. HEPA filters are composed of a mat of randomly arranged fine fibers, typically fiberglass, which work through mechanical filtration processes. They are not wetted or oiled.
- **(B) Non-reusable filter.** This is true. As the filter captures particles, its pores become clogged. They are not designed to be washed or cleaned for reuse; they must be replaced when they reach the end of their service life.
- **(C) Remove 99.9 per cent of airborne particles.** This is true. The official standard for a true HEPA filter in the US is the removal of 99.97
- **(D) Remove dust, pollen, mold and bacteria.** This is true. The 0.3-micron particle size is the most penetrating particle size (MPPS). Filters are even more efficient at capturing particles that are larger or smaller than this, so they are highly effective at removing common allergens and microorganisms like those listed.

**Step 3:** All four statements (A, B, C, and D) accurately describe the characteristic features of HEPA filters.

 Quick Tip

The key feature of a HEPA filter is its extremely high efficiency (**99.97% at 0.3  $\mu\text{m}$** ). All other characteristics, like being a dry, disposable filter that captures dust and bacteria, stem from this primary function.

**61. The Administrative Departments in the Hospital include:**

- A. Accounts department**
- B. Linen and laundry department**
- C. General OPD**
- D. Housekeeping**

Choose the correct answer from the options given below: (A) A, B and D only

(B) A and B only

(C) A, B and C

(D) B, C and D only

**Correct Answer:** (A) A, B and D only

**Solution:**

**Step 1:** Hospital departments can be broadly categorized based on their primary function.

- **Clinical Departments** are directly involved in providing patient care, including diagnosis, treatment, and medical procedures.
- **Administrative and Support Departments** provide the essential non-clinical services that enable the clinical departments to function effectively and the hospital to operate as an organization.

**Step 2:** Let's apply this classification to the options.

- **(A) Accounts department:** This department handles billing, payroll, and financial management. It does not provide direct patient care, so it is an **administrative** department.
- **(B) Linen and laundry department:** This department manages the supply of clean textiles. It is a crucial service but does not involve treating patients, making it a **support** department.
- **(C) General OPD (Out-Patient Department):** This is where doctors consult with and treat patients who are not admitted to the hospital. This is a core **clinical** department.
- **(D) Housekeeping:** This department is responsible for cleaning and maintaining the hospital environment. This is a vital **support** department.

**Step 3:** The Accounts department (A), Linen and Laundry (B), and Housekeeping (D) all fall under the umbrella of administrative and support services. The General OPD (C) is a clinical service. Therefore, the correct combination is A, B, and D.

💡 Quick Tip

Ask the question: "Does this department directly treat patients?" If the answer is yes (like OPD, IPD, OT), it's clinical. If the answer is no (like accounts, laundry, HR, maintenance), it's administrative or support.

**62. A management decision model comprises of the following elements:**

- A. A clear idea of what is to be achieved**
- B. An appreciation of insource constraints**
- C. An identification of risk factors**
- D. A comparison of payoff value with input costs**

Choose the correct answer from the options given below: (A) A, B and D only

(B) A and C only

(C) A, C and D only

(D) B, C and D only

**Correct Answer:** (C) A, C and D only

**Solution:**

**Step 1:** A formal management decision model provides a structured and logical framework for making choices. It involves moving from defining the goal to evaluating the options and their potential outcomes.

**Step 2:** Let's analyze the importance of each listed element in a comprehensive decision model.

- **(A) A clear idea of what is to be achieved:** This is the **objective** or goal of the decision. It is the most fundamental element, as without a clear objective, there is no basis for choosing one alternative over another.
- **(B) An appreciation of insource constraints:** While understanding internal constraints (like budget or manpower) is important, a robust decision model must consider *all* relevant constraints, including external ones (like market conditions, laws, or competitor actions). Limiting the scope to only "insource" constraints makes this statement too narrow to be a universal element.
- **(C) An identification of risk factors:** A critical part of any sound decision-making process is to analyze the potential uncertainties and risks associated with each alternative. This allows for a more realistic assessment of potential outcomes.
- **(D) A comparison of payoff value with input costs:** This is the essence of a cost-benefit or return-on-investment analysis. The decision-maker must weigh the expected benefits or "payoff" of each option against the resources or "costs" required to implement it.

**Step 3:** A clear objective (A), the identification of risks (C), and a comparison of costs versus benefits (D) are all fundamental and universally accepted components of a management decision model. Element (B) is too specific and not a complete representation of constraint analysis. Therefore, A, C, and D is the best combination.

 Quick Tip

A good decision model answers three basic questions: 1. **What do we want?** (Objective - A), 2. **What could go wrong?** (Risks - C), 3. **Is it worth it?** (Cost vs. Payoff - D).

**63. Some of the syndromes associated with abnormalities of sex chromosomes are:**

- A. Cerebral palsy**
- B. Klinefelter's syndrome**
- C. Turner's syndrome**
- D. Super females**

Choose the correct answer from the options given below: (A) A, B and D only

(B) B and C only

(C) A, B and C

(D) B, C and D only

**Correct Answer:** (D) B, C and D only

**Solution:**

**Step 1:** This category of genetic disorders, known as sex chromosome aneuploidy, involves having an atypical number of X or Y chromosomes. Humans typically have 46 chromosomes in total, including two sex chromosomes: XX for females and XY for males. These conditions result from errors during cell division.

**Step 2:** Let's determine the cause of each condition listed.

- **(A) Cerebral palsy:** This is not a genetic disorder but a group of permanent movement disorders that appear in early childhood. It is caused by damage to or abnormal development in the parts of the brain that control movement, balance, and posture. It is unrelated to chromosome numbers.
- **(B) Klinefelter's syndrome:** This is a classic sex chromosome abnormality that affects males. It is caused by the presence of an extra X chromosome, resulting in the karyotype 47,XXY instead of the typical 46,XY.
- **(C) Turner's syndrome:** This sex chromosome abnormality affects females. It is caused by the complete or partial absence of one of the X chromosomes, resulting in the karyotype 45,X0 instead of the typical 46,XX.
- **(D) Super females (more commonly known as Triple X syndrome):** This sex chromosome abnormality affects females and is caused by the presence of an extra X chromosome, resulting in the karyotype 47,XXX instead of 46,XX.

**Step 3:** Based on the analysis, Klinefelter's syndrome (B), Turner's syndrome (C), and Super females/Triple X syndrome (D) are all conditions caused by an abnormal number of sex chromosomes. Cerebral palsy (A) has a different, non-chromosomal origin. Therefore, the correct combination is B, C, and D.

💡 Quick Tip

Remember the common sex chromosome aneuploidies:

- **Turner Syndrome:** XO (female)
- **Klinefelter Syndrome:** XXY (male)
- **Triple X (Super female):** XXX (female)
- **Jacobs Syndrome (Super male):** XYY (male)

**64. Health care has many characteristics; they include:**

- A. Appropriateness**
- B. Adequacy**
- C. Apprehension**
- D. Affordability**

Choose the correct answer from the options given below: (A) A, B and D only

(B) A and B only

(C) A, B and C

(D) B, C and D only

**Correct Answer:** (A) A, B and D only

**Solution:**

**Step 1:** When evaluating a healthcare system or service, public health experts and policymakers look at several key dimensions of quality and accessibility. The question asks us to identify which of the listed items are positive, desirable characteristics of healthcare.

**Step 2:** Let's analyze the meaning of each word in the context of healthcare.

- **(A) Appropriateness:** This means that the healthcare provided is the correct care for the patient's specific condition, is evidence-based, and is tailored to their individual needs. It is a fundamental characteristic of quality care.
- **(B) Adequacy:** This refers to the sufficiency of the care provided. It means that the volume and scope of services are enough to meet the health needs of the population. It is a key characteristic of a robust health system.
- **(C) Apprehension:** This word means fear or anxiety about something bad happening. In a healthcare context, this is a negative emotional state experienced by a patient. While healthcare providers aim to reduce apprehension, it is not a desirable characteristic of the care itself.
- **(D) Affordability:** This means that the cost of healthcare services does not create a financial barrier for individuals seeking care or cause undue hardship. It is an essential characteristic for ensuring equitable access to healthcare.

**Step 3:** Appropriateness (A), Adequacy (B), and Affordability (D) are all positive and crucial characteristics of a well-functioning healthcare system. Apprehension (C) is a negative factor that the system should aim to minimize. Therefore, the correct combination is A, B, and D.

 Quick Tip

Remember the "A's" of quality healthcare: **A**vailability, **A**ccessibility, **A**ceptability, **A**ffordability, **A**dequacy, and **A**ppropriateness. The list in the question includes several of these.

**65. Socio-economic determinants of Health include:**

- A. Economic status**
- B. Education**
- C. Political system**
- D. Gender**

Choose the correct answer from the options given below: (A) A, B and D only

- (B) A and B only
- (C) A, B and C
- (D) A, B, C and D

**Correct Answer:** (D) A, B, C and D

**Solution:**

**Step 1:** The Social Determinants of Health (SDOH) are the broad range of social, economic, and political factors that shape an individual's and a community's health status. These are the conditions in the environments where people are born, live, learn, work, play, worship, and age, which affect a wide range of health outcomes and risks.

**Step 2:** Let's assess whether each item fits within this broad definition.

- **(A) Economic status:** A person's income, wealth, and employment status directly impact their ability to afford healthy food, safe housing, and healthcare. It is a foundational SDOH.
- **(B) Education:** Educational attainment is strongly correlated with health. It influences health literacy, employment opportunities, and income, all of which affect health. It is a key SDOH.
- **(C) Political system:** The political system is a crucial "structural determinant." Government policies on healthcare, social welfare, education, and the environment create the conditions that either promote or harm public health.
- **(D) Gender:** Gender, as a social construct, is a powerful determinant of health. Societal norms, roles, and discrimination associated with gender can lead to differences in health risks, health-seeking behaviors, and access to care.

**Step 3:** All four factors listed—Economic status, Education, the Political system, and Gender—are widely recognized by public health organizations like the WHO as critical socio-economic determinants that create and perpetuate health inequities. Therefore, the correct option includes A, B, C, and D.

### 💡 Quick Tip

The Social Determinants of Health are very broad. Think of anything outside of your own body that affects your health: your wallet (**economic status**), your knowledge (**education**), your community, your government (**political system**), and how society treats you (**gender**, race, etc.).

## 66. Match the LIST-I with LIST-II

### LIST-I (Categories of Zoonoses)

- A. Direct zoonoses
- B. Meta-zoonoses
- C. Cyclo-zoonoses
- D. Sapro-zoonoses

### LIST-II (Type of life cycle of the infecting organism)

- I. Transmitted from an infected vertebrate host to a susceptible vertebrate host.
- II. Requires more than one vertebrate host species, but no invertebrate host, in order to complete the developmental cycle of the agent.
- III. Transmitted biologically by invertebrate vectors.
- IV. Have both a vertebrate host and a non-animal developmental site or reservoir.

Choose the correct answer from the options given below: (A) A - I, B - II, C - III, D - IV

(B) A - I, B - III, C - II, D - IV

(C) A - I, B - II, C - IV, D - III

(D) A - III, B - IV, C - I, D - II

**Correct Answer:** (B) A - I, B - III, C - II, D - IV

### Solution:

**Step 1:** Zoonoses (diseases transmissible from animals to humans) are classified based on the complexity of their life cycle and mode of transmission.

- **Direct zoonoses:** The infectious agent is transmitted from one infected vertebrate host to another susceptible vertebrate host by direct contact, fomites (contaminated objects), or a mechanical vector, without undergoing any development or multiplication.
- **Cyclo-zoonoses:** The agent requires at least two different species of vertebrate hosts to complete its developmental cycle. Humans can be either a definitive or intermediate host.
- **Meta-zoonoses:** The agent's life cycle requires both a vertebrate host and an invertebrate vector. The agent multiplies or develops within the invertebrate vector before it can be transmitted to the vertebrate host.
- **Sapro-zoonoses:** The agent's life cycle requires a vertebrate host and also a non-animal reservoir for development, such as soil, water, or decaying organic matter.

**Step 2:** Let's align each category with its precise definition.

- **A. Direct zoonoses** matches with **I. Transmitted from an infected vertebrate host to a susceptible vertebrate host.** An example is rabies.

- **B. Meta-zoonoses** matches with **III. Transmitted biologically by invertebrate vectors**. An example is plague, which is transmitted by fleas.
- **C. Cyclo-zoonoses** matches with **II. Requires more than one vertebrate host species, but no invertebrate host...** An example is tapeworm infection (taeniasis), cycling between humans and cattle/pigs.
- **D. Sapro-zoonoses** matches with **IV. Have both a vertebrate host and a non-animal developmental site or reservoir**. An example is histoplasmosis, where the fungus grows in soil enriched with bird droppings.

**Step 3:** The correct set of matches is A-I, B-III, C-II, D-IV.

#### 💡 Quick Tip

Remember the prefixes:

- **Direct:** Animal → Human (direct).
- **Cyclo- (cycle):** Vertebrate 1 → Vertebrate 2 (cycle between vertebrates).
- **Meta- (change):** Needs to change in an invertebrate vector.
- **Sapro- (decay):** Involves a non-animal (decaying matter, soil) reservoir.

### 67. Match the LIST-I with LIST-II

**LIST-I (Classification of Anthropology)**

- A. Physical Anthropology
- B. Social Anthropology
- C. Cultural Anthropology
- D. Medical Anthropology

**LIST-II (Characteristics of types of Anthropology)**

- I. The study of the total way of life of contemporary primitive man, his ways of thinking, feeling and action
- II. Deals with the cultural component in the ecology of health and disease.
- III. The study of human evolution, racial differences, inheritance of bodily traits, growth and decay of the human organism
- IV. The study of the development and various types of social life

Choose the correct answer from the options given below: (A) A - I, B - II, C - III, D - IV

- (B) A - I, B - III, C - II, D - IV
- (C) A - III, B - IV, C - I, D - II
- (D) A - III, B - IV, C - I, D - II

**Correct Answer:** (C) A - III, B - IV, C - I, D - II

**Solution:**

**Step 1:** Anthropology is the holistic study of humanity, and it is divided into several specialized subfields.

- **Physical Anthropology (or Biological Anthropology):** This subfield focuses on the biological and physical aspects of human beings. It studies human origins, evolution, genetic variation, and primatology.
- **Social Anthropology:** This subfield concentrates on the study of human social structures, relationships, and institutions, such as kinship, political organization, and religion.
- **Cultural Anthropology:** This subfield is concerned with the study of human cultures, which encompasses the learned behaviors, beliefs, values, and symbolic systems that shape a group's way of life.
- **Medical Anthropology:** This is a specialized subfield that examines how health, illness, and healing are understood, experienced, and structured within different cultural and social contexts.

**Step 2:** Let's connect each subfield with its corresponding description.

- **A. Physical Anthropology** clearly aligns with **III. The study of human evolution, racial differences, inheritance of bodily traits...**
- **B. Social Anthropology** directly corresponds to **IV. The study of the development and various types of social life.**
- **C. Cultural Anthropology** is best described by **I. The study of the total way of life... his ways of thinking, feeling and action.**
- **D. Medical Anthropology** is precisely defined by **II. Deals with the cultural component in the ecology of health and disease.**

**Step 3:** Based on these definitions, the correct set of matches is A-III, B-IV, C-I, D-II.

#### 💡 Quick Tip

Focus on the keywords: **Physical** → Evolution/Body. **Social** → Social Life/Structure. **Cultural** → Way of Life/Beliefs. **Medical** → Health/Disease.

### 68. Match the LIST-I with LIST-II

#### LIST-I (Term)

- A. Sterilization
- B. Antiseptic
- C. Germicide
- D. Disinfectant

#### LIST-II (Definition)

- I. Validated process used to render a product free of all forms of viable microorganisms including bacterial spores.
- II. Substance that prevents or arrests the growth or action of microorganisms by inhibiting their activity or by destroying them.
- III. Usually a chemical agent that destroys disease causing pathogens or other harmful microorganisms, but might not kill bacterial spores.

#### IV. Agent that destroys microorganisms, especially pathogenic organisms.

Choose the correct answer from the options given below: (A) A - I, B - II, C - III, D - IV  
(B) A - I, B - III, C - II, D - IV  
(C) A - I, B - II, C - IV, D - III  
(D) A - III, B - IV, C - I, D - II

**Correct Answer:** (C) A - I, B - II, C - IV, D - III

#### **Solution:**

**Step 1:** These terms describe different levels and applications of antimicrobial agents.

- **Sterilization:** The most absolute term. It refers to any process that removes, kills, or deactivates all forms of life, including transmissible agents like bacteria, viruses, and fungi, and their highly resistant spores.
- **Antiseptic:** An antimicrobial substance that is applied to living tissue/skin to reduce the possibility of infection. Antiseptics are generally distinguished from antibiotics by their ability to be used on the body, and from disinfectants, which are used on non-living objects.
- **Germicide:** A broad term for any substance or agent that kills germs (microorganisms), especially pathogenic ones. It is a general category that can include both antiseptics and disinfectants.
- **Disinfectant:** An antimicrobial agent applied to the surface of non-living objects to destroy microorganisms. Disinfection does not necessarily kill all microorganisms, especially resistant bacterial spores; it is less effective than sterilization.

**Step 2:** Let's align the terms with their precise definitions.

- **A. Sterilization** perfectly matches **I. ...free of all forms of viable microorganisms including bacterial spores.** The mention of spores is key.
- **B. Antiseptic** aligns with **II. Substance that prevents or arrests the growth or action of microorganisms...** This definition is general, but in this context, it is the best fit for antiseptics which are used on living tissue.
- **C. Germicide** matches the broad definition in **IV. Agent that destroys microorganisms, especially pathogenic organisms.**
- **D. Disinfectant** is accurately described by **III. ...destroys disease causing pathogens... but might not kill bacterial spores.** The key distinction from sterilization is the inability to reliably kill spores.

**Step 3:** The correct set of matches is A-I, B-II, C-IV, D-III.

#### Quick Tip

Remember the key distinctions: **Sterilization** kills EVERYTHING, including spores. **Disinfection** is for objects and may not kill spores. **Antisepsis** is for living tissue.

**69. Match the LIST-I with LIST-II**

**LIST-I (ACT applicable to Hospitals)**

- A. Indian Medical Council Act**
- B. Indian Nursing Council Act**
- C. Minimum Wages Act**
- D. Mental Healthcare Act**

**LIST-II (Year of Implementation)**

- I. 1956**
- II. 1947**
- III. 1948**
- IV. 2017**

Choose the correct answer from the options given below: (A) A - I, B - II, C - III, D - IV

(B) A - I, B - III, C - II, D - IV

(C) A - I, B - II, C - IV, D - III

(D) A - III, B - IV, C - I, D - II

**Correct Answer:** (A) A - I, B - II, C - III, D - IV

**Solution:**

**Step 1:** These are all significant pieces of legislation in India that regulate various aspects of the healthcare sector, from professional conduct to labor rights and patient care.

**Step 2:** Let's identify the year of enactment for each act.

- **A. Indian Medical Council Act:** This foundational act, which established the Medical Council of India to regulate the standards of medical education and professional practice, was enacted in **1956**. (Note: It was replaced by the National Medical Commission Act in 2019).
- **B. Indian Nursing Council Act:** This act was passed to establish a uniform standard of training for nurses, midwives, and health visitors and to create the Indian Nursing Council. It was enacted in **1947**, right at the time of India's independence.
- **C. Minimum Wages Act:** This is a key piece of Indian labour law that sets minimum wage rates for workers in scheduled employments. It was enacted in **1948**, shortly after independence.
- **D. Mental Healthcare Act:** This modern act, which takes a rights-based approach to mental healthcare and repeals the earlier 1987 act, was enacted in **2017**.

**Step 3:** Based on the years of enactment, the correct matching is A-I, B-II, C-III, D-IV.

 **Quick Tip**

Try to associate these acts with historical periods: The Nursing and Wages acts are from the immediate post-independence era. The Medical Council Act is from the mid-20th century consolidation period. The Mental Healthcare Act is a very recent 21st-century reform.

**70. Match the LIST-I with LIST-II**

**LIST-I (Committee)**

- A. Mudaliar committee**
- B. Kartar Singh committee**
- C. Shrivastav committee**
- D. Jungalwalla committee**

**LIST-II (Year)**

- I. 1962**
- II. 1975**
- III. 1973**
- IV. 1967**

Choose the correct answer from the options given below: (A) A - I, B - II, C - III, D - IV

(B) A - I, B - III, C - II, D - IV

(C) A - I, B - II, C - IV, D - III

(D) A - III, B - IV, C - I, D - II

**Correct Answer:** (B) A - I, B - III, C - II, D - IV

**Solution:**

**Step 1:** These committees, appointed by the Government of India, were pivotal in shaping the country's health services and policies from the post-independence era through the 1970s.

**Step 2:** Let's align each committee with the year its report was submitted.

- **A. Mudaliar Committee**, formally known as the Health Survey and Planning Committee, was tasked with reviewing the progress since the Bhore Committee report and making further recommendations. It submitted its report in **1962**.
- **B. Kartar Singh Committee**, officially the Committee on Multipurpose Workers under Health and Family Planning, made the influential recommendation to create a single, unified cadre of male and female multipurpose health workers. Its report was submitted in **1973**.
- **C. Shrivastav Committee**, or the Group on Medical Education and Support Manpower, focused on reforming medical education and creating a cadre of semi-professional health assistants to strengthen rural healthcare. It submitted its report in **1975**.
- **D. Jungalwalla Committee**, the Committee on Integration of Health Services, addressed the issue of separate cadres for preventive and curative services and recommended a unified, integrated health service. Its report was submitted in **1967**.

**Step 3:** Based on these dates, the correct set of matches is A-I, B-III, C-II, D-IV.

**💡 Quick Tip**

Create a mental timeline of these committees: Mudaliar (early 60s) → Jungalwalla (late 60s) → Kartar Singh (early 70s) → Shrivastav (mid 70s).

**71. Match the LIST-I with LIST-II**

**LIST-I (Institution)**

- A. Panchayat**
- B. Panchayat Samiti**
- C. Zilla Parishad**
- D. Directorate General of Health Services**

**LIST-II (Functional Level)**

- I. Function at the district level.**
- II. Adviser to the Union Government.**
- III. Function at the village level.**
- IV. Function at the block level.**

Choose the correct answer from the options given below: (A) A - III, B - II, C - I, D - IV

(B) A - III, B - IV, C - I, D - II

(C) A - I, B - II, C - IV, D - III

(D) A - III, B - I, C - IV, D - II

**Correct Answer:** (B) A - III, B - IV, C - I, D - II

**Solution:**

**Step 1:** The question combines institutions from two different but related administrative structures in India: the three-tier system of local rural self-governance (Panchayati Raj) and the national health administration.

- **Panchayati Raj Tiers (from bottom to top):** Gram Panchayat (Village), Panchayat Samiti (Block), and Zilla Parishad (District).
- **Health Administration:** The Directorate General of Health Services (DGHS) is a national-level body.

**Step 2:** Let's match each institution to its correct level of operation.

- **A. Panchayat** (specifically the Gram Panchayat) is the foundational unit of local self-government and **functions at the village level (III)**.
- **B. Panchayat Samiti** is the intermediate tier of the Panchayati Raj system, which **functions at the block level (IV)**.
- **C. Zilla Parishad** is the apex body of the three-tier system, which **functions at the district level (I)**.
- **D. Directorate General of Health Services (DGHS)** is the technical wing of the Ministry of Health Family Welfare. It is the senior-most technical authority and serves as the primary **adviser to the Union Government (II)** on all medical and public health matters.

**Step 3:** Based on these established administrative structures, the correct set of matches is A-III, B-IV, C-I, D-II.

 Quick Tip

Remember the 3 tiers of Panchayati Raj, from bottom to top: Gram Panchayat (**Village**), Panchayat Samiti (**Block**), Zilla Parishad (**District**). The DGHS is a national-level body.

**72. Match the LIST-I with LIST-II**

**LIST-I (Type of Waste)**

- A. Type 0 Waste**
- B. Type 1 Waste**
- C. Type 2 Waste**
- D. Type 3 Waste**

**LIST-II (Classification)**

- I. Trash**
- II. Rubbish**
- III. Garbage**
- IV. Refuse**

Choose the correct answer from the options given below: (A) A - I, B - II, C - III, D - IV  
(B) A - I, B - III, C - II, D - IV  
(C) A - I, B - IV, C - II, D - III  
(D) A - III, B - I, C - IV, D - II

**Correct Answer:** (C) A - I, B - IV, C - II, D - III

**Solution:**

**Step 1:** This question refers to a common classification system for solid waste, often used to determine its properties for disposal methods like incineration. The types are generally ordered by their composition, moisture content, and heating value.

- **Type 0 Waste (Trash):** This category consists of highly combustible, dry materials with low moisture content, like paper, cardboard, and wood boxes. It is classified as **Trash**.
- **Type 1 Waste (Refuse):** A mixture of combustible waste like paper, some food scraps, and other general refuse from domestic and commercial sources. It is classified as **Refuse**.
- **Type 2 Waste (Rubbish):** This consists of a mixture of combustible and non-combustible waste from residential sources, having a higher moisture content than Type 1. It is classified as **Rubbish**.
- **Type 3 Waste (Garbage):** This is primarily composed of decomposable animal and vegetable waste from food handling sources like restaurants and kitchens. It has a high moisture content and is classified as **Garbage**.

**Step 2:** Based on these standard definitions:

- **A. Type 0 Waste** corresponds to **I. Trash**.

- **B. Type 1 Waste** corresponds to **IV. Refuse**.
- **C. Type 2 Waste** corresponds to **II. Rubbish**.
- **D. Type 3 Waste** corresponds to **III. Garbage**.

**Step 3:** The correct set of matches is A-I, B-IV, C-II, D-III.

#### 💡 Quick Tip

Think of the waste types on a scale from dry to wet: **Type 0 (Trash)** is driest (paper), **Type 3 (Garbage)** is wettest (food). Rubbish and Refuse are in between.

### 73. Match the LIST-I with LIST-II

#### LIST-I (Principle of Management)

- A. Unity of Command
- B. Unity of Direction
- C. Scalar Chain
- D. Division of Work

#### LIST-II (Explanation)

- I. Employees should receive orders from one superior only.
- II. The line of authority from the highest to the lowest ranks in the organization.
- III. Each group of activities with the same objective must have one head and one plan.
- IV. The work assigned to each worker should be clearly defined and clarified.

Choose the correct answer from the options given below: (A) A - I, B - II, C - III, D - IV

(B) A - I, B - III, C - II, D - IV

(C) A - I, B - II, C - IV, D - III

(D) A - III, B - I, C - IV, D - II

**Correct Answer:** (B) A - I, B - III, C - II, D - IV

#### Solution:

**Step 1:** The terms listed in List-I are four of the most influential of the 14 principles of management developed by the classical management theorist Henri Fayol. They provide a framework for effective organizational structure and administration.

**Step 2:** Let's define each principle and find its corresponding explanation.

- **A. Unity of Command:** This principle states that to avoid confusion and conflicting instructions, each employee should report to and receive orders from only one supervisor. This directly matches explanation **I**.
- **B. Unity of Direction:** This principle asserts that all activities within an organization that share a common objective should be directed by a single manager using a single plan. This ensures coordinated effort towards a common goal. This matches explanation **III**.

- **C. Scalar Chain:** This refers to the formal line of authority and communication that runs from the top management down to the lowest ranks. It defines the formal reporting structure. This is perfectly described by explanation **II**.
- **D. Division of Work:** This is the principle of specialization. It suggests that work can be performed more efficiently if it is broken down into smaller, specialized tasks, with each employee focusing on a specific part. Explanation **IV**, which emphasizes that the work assigned should be clearly defined, is the closest description of the outcome of this principle.

**Step 3:** Based on these definitions, the correct set of matches is A-I, B-III, C-II, D-IV.

#### 💡 Quick Tip

Remember the difference: **Unity of Command** is about ONE BOSS for an employee. **Unity of Direction** is about ONE PLAN for a team/objective.

### 74. Match the LIST-I with LIST-II

#### LIST-I (Types of Budget)

- A. Revenue and Expense Budget
- B. Programme Budgeting
- C. Zero-based Budgeting
- D. Variable or Flexible Budgeting

#### LIST-II (Explanation)

- I. Budget that reflects the anticipated income from the sales of products and controlling services.
- II. Budget to provide a systematic method for allocating the resources in ways most effective to meet the goals.
- III. Budget that divide enterprise programmes into "packages" and then calculate costs for each package from the bottom up.
- IV. Budget that adjusts targeted levels of costs for changes in volume.

Choose the correct answer from the options given below: (A) A - I, B - II, C - III, D - IV

(B) A - I, B - III, C - II, D - IV

(C) A - I, B - II, C - IV, D - III

(D) A - III, B - I, C - IV, D - II

**Correct Answer:** (A) A - I, B - II, C - III, D - IV

#### Solution:

**Step 1:** Each budgeting method has a distinct approach and purpose.

- **Revenue and Expense Budget (or Operating Budget):** This is the most common type of budget. It forecasts the organization's income (revenue) and its day-to-day operational costs (expenses) over a specific period, typically a year.
- **Programme Budgeting:** This approach focuses on the goals and objectives (programs) of the organization. Resources are allocated based on their contribution to specific programs, rather than to traditional line-item departments.

- **Zero-based Budgeting (ZBB):** This method requires managers to justify all budgeted expenses for each new period, without reference to the previous period's budget. Each activity is broken down into "decision packages" which are evaluated and ranked.
- **Variable or Flexible Budgeting:** Unlike a static budget, this type is designed to adapt to changes in the level of activity or volume. It separates costs into fixed and variable components to show how costs should change as volume changes.

**Step 2:** Let's align each budget type with its definition.

- **A. Revenue and Expense Budget** matches **I. Budget that reflects the anticipated income...and controlling services (expenses).**
- **B. Programme Budgeting** matches **II. Budget to provide a systematic method for allocating the resources in ways most effective to meet the goals.**
- **C. Zero-based Budgeting** matches **III. Budget that divide enterprise programmes into "packages" and then calculate costs... from the bottom up.**
- **D. Variable or Flexible Budgeting** matches **IV. Budget that adjusts targeted levels of costs for changes in volume.**

**Step 3:** All definitions match their respective terms directly. The correct matching is A-I, B-II, C-III, D-IV.

#### 💡 Quick Tip

Focus on the core idea: **Zero-based** starts from zero. **Flexible** adjusts with volume. **Programme** focuses on goals. **Revenue/Expense** is about income vs. spending.

### 75. Match the LIST-I with LIST-II

**LIST-I (Phase of Disaster)**

- A. Predisaster Phase
- B. Alert Phase
- C. Impact Phase
- D. Post Impact Phase

**LIST-II (Feature)**

- I. Include risk assessment and training.
- II. Period when a disaster is developing.
- III. Re-establishing sanitary measures to prevent outbreak of epidemics.
- IV. Relief efforts and immediate response.

Choose the correct answer from the options given below: (A) A - I, B - II, C - III, D - IV

(B) A - I, B - II, C - IV, D - III

(C) A - I, B - II, C - IV, D - III

(D) A - III, B - I, C - IV, D - II

**Correct Answer:** (B) A - I, B - II, C - IV, D - III

**Solution:**

**Step 1:** The management of disasters is understood as a continuous cycle that includes activities before, during, and after an event. The question outlines key phases within this cycle.

**Step 2:** Let's define each phase and identify its characteristic activities.

- **A. Predisaster Phase:** This is the ongoing period before a disaster occurs. It encompasses all activities aimed at preventing disasters, reducing their impact (mitigation), and preparing for their occurrence. This perfectly matches **I. Include risk assessment and training**, which are core preparedness and mitigation activities.
- **B. Alert Phase (or Warning Phase):** This is the crucial period when a specific disaster threat is identified and is becoming imminent. It involves issuing warnings and initiating pre-planned responses. This matches **II. Period when a disaster is developing**.
- **C. Impact Phase (or Response Phase):** This phase begins when the disaster strikes. The focus is entirely on life-saving and emergency assistance. This is accurately described by **IV. Relief efforts and immediate response**.
- **D. Post Impact Phase (or Recovery Phase):** This is the long-term phase following the immediate crisis. It involves actions to restore normalcy and rebuild the community. A key part of this is preventing secondary disasters, such as disease outbreaks, which matches **III. Re-establishing sanitary measures to prevent outbreak of epidemics**.

**Step 3:** Based on the disaster management cycle, the correct set of matches is A-I, B-II, C-IV, D-III.

#### 💡 Quick Tip

Think of the disaster timeline:

- **Pre-Disaster:** Prepare (Risk assessment).
- **Alert:** Warning bells are ringing.
- **Impact:** The disaster is happening (Immediate relief).
- **Post-Impact:** Clean up and rebuild (Recovery, re-establishing services).