ZIAUDDIN UNIVERSITY EXAMINATION BOARD

Total Time 3 hours
Total Marks: 100

Class: XII **HIGHER SECONDARY SCHOOL CERTIFICATE MODEL PAPER 2026**
Time Allowed: 20 minutes **SUBJECT: FOUNDATION OF NURSING**
SECTION "A" (MULTIPLE CHOICE QUESTIONS) **Marks: 17**

Q1: Attempt **ALL** questions from this section. Each question carries **ONE** mark.

1. Which of the following best reflects the purpose of nursing standards and guidelines?
   A. To limit nurses' autonomy in clinical decision-making B. To ensure uniformity and safety in nursing practice
   C. To reduce patient participation in care planning D. To replace the need for professional judgment
2. According to Maslow's hierarchy of needs, which of the following patient concerns should the nurse address first?
   A. The patient's need for love and belonging B. The patient's desire for self-actualization
   C. The patient's difficulty in breathing D. The patient's fear of losing independence
3. In pharmaceutical microbiology, MALDI-TOF MS is primarily used to:
   A. Sterilize medical instruments B. Identify microorganisms rapidly
   C. Measure blood glucose levels D. Detect genetic mutations in patients
4. Which of the following microorganisms lacks a true nucleus and membrane-bound organelles?
   A. Fungi B. Protozoa C. Bacteria D. Viruses
5. Which of the following systems is mainly responsible for hormone production and regulation of body functions?
   A. Nervous system B. Skeletal system C. Endocrine system D. Muscular system
6. Anatomy primarily deals with:
   A. The chemical reactions occurring inside the human body
   B. The structural organization of body parts and their relationships
   C. The physiological mechanisms controlling body functions
   D. The study of disease processes in the body
7. A person with blood group AB can receive blood from which of the following group/s?
   A. B only B. A only C. O only D. All blood groups
8. The plasma membrane plays a critical role in cell physiology because it:
   A. Produces enzymes for metabolism B. Regulates the movement of substances into and out of the cell
   C. Stores hereditary information D. Synthesizes proteins for muscle contraction
9. When muscle cells enlarge in response to increased workload, this is called:
   A. Hyperplasia B. Hypertrophy C. Atrophy D. Metaplasia
10. Which of the following best describes atrophy in tissues?
    A. Increase in cell number due to hormonal stimulation B. Decrease in cell size leading to reduced tissue mass
    C. Transformation of one cell type into another D. Uncontrolled cell growth forming tumors
11. Which of the following factors can alter how a drug interacts chemically within the body?
    A. Body temperature B. Patient's age only
    C. Electrolyte imbalance and pH level D. Nursing shift timing
12. Which electrolyte is the primary ion responsible for nerve impulse transmission and muscle contraction?
    A. Sodium (Na^+) B. Calcium (Ca^{2+}) C. Potassium (K^+) D. Chloride (Cl^-)
13. Which of the following best describes an anabolic process?
    A. The breakdown of complex molecules into simpler ones to release energy
    B. The conversion of energy into heat
    C. The synthesis of complex molecules from simpler ones using energy
    D. The transport of oxygen in the bloodstream
14. Which of the following is an example of a drug classified by its therapeutic use**?**
    A. Antipyretic B. Alkaloid C. Capsule D. Emulsion
15. Which modern drug delivery method provides a slow and steady release of medication through the skin?
    A. Transdermal patch B. Oral tablet C. Nasal spray D. Eye drops
16. According to the nursing code of ethics**,** a nurse's primary responsibility is to:
    A. Maintain good relationships with coworkers B. Protect the patient's rights, dignity, and safety
    C. Follow hospital policies without question D. Avoid involvement in ethical decision-making
17. Which of the following best describes the principle of justice in nursing ethics?
    A. Treating all patients fairly and without discrimination B. Always following the doctor's orders
    C. Keeping patient information confidential D. Doing only what benefits the nurse's workload

Practical Based Assessment (PBA) **Marks: 15**

Q2: Attempt **ALL** questions with their sub-parts. Each question carries **FIVE** marks.

1. A 45-year-old patient is admitted with a deep leg wound showing redness, swelling, warmth, and mild pain. The physician diagnoses acute inflammation and orders wound care and antibiotics.

As a student nurse, answer the following:

a) Identify two cardinal signs of inflammation visible in this patient. (1 mark)
b) State the main purpose of the inflammatory response. (1 mark)
c) Name two key cells involved in inflammation and their functions. (2 marks)
d) Mention one essential nursing responsibility in managing an inflamed wound. (1 mark)

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2. You are assigned to care for a patient who refuses a blood transfusion due to religious beliefs. The doctor insists that the transfusion is necessary to save the patient's life.

As a nurse:

a) Explain how you would handle this ethical dilemma. (1 mark)
b) Describe which ethical principles (e.g., autonomy, beneficence, non-maleficence, justice) guide your actions. (2 marks)
c) Discuss how you would respect the patient's rights while ensuring safety and professional care. (2 marks)

3. You are caring for a patient from a different cultural background who is refusing parts of the treatment plan because of personal beliefs and traditions.
As a nurse, explain how you would provide culturally competent, safe, and respectful care to meet the patient's physical, emotional, and cultural needs while maintaining quality and ethical nursing practice.

END OF SECTION A

Class: XII **HIGHER SECONDARY SCHOOL CERTIFICATE MODEL PAPER 2026**
Time: 2 hours 40 minutes **SUBJECT: FOUNDATION OF NURSING SECTION "B" AND SECTION "C"** **Total Marks 68**

SECTION "B" SHORT ANSWER QUESTIONS **36 Marks**

Q3: Answer any **NINE** questions from this section. All questions carry equal marks.

i. Explain the main modes of infection transmission and describe two important methods nurses use to prevent and control infection in healthcare settings.
ii. Explain the difference between natural and acquired immunity. Give one example of each.
iii. Describe four ways microorganisms are beneficial in industry or medicine.
iv. Explain the process of muscle contraction in human physiology.
v. Discuss two common blood disorders**,** stating their causes and effects on body function**.**
vi. Describe how basic chemical principles influence the absorption and effectiveness of drugs in the body. Include any two factors that can alter these chemical interactions.
vii. Differentiate between chemical**,** generic, and brand names of drugs, and explain why nurses should use generic names in medication administration.
viii. Compare local and systemic routes of drug administration and mention one advantage and one disadvantage of each.
ix. Describe the main parts of the skin and explain how each part contributes to the protection and maintenance of body functions.
x. Identify any two common biochemical reactions (e.g., oxidation–reduction, hydrolysis, or isomerization) and explain how they help in molecular transformations within living cells.
xi. Explain the basic principles of biochemistry and describe why understanding them is important for nurses in studying life processes and human health.
xii. Explain the importance of the nursing code of ethics in guiding nurses' professional behavior.

SECTION "C" DETAILED ANSWER QUESTIONS **32 Marks**

Q4: Answer any **TWO-PART** questions from this section. All questions carry equal marks. Your answer should not exceed 30 – 40 lines.

1.
a. Discuss how nursing theories, professional standards, and cultural competence contribute to the delivery of holistic and ethical patient care.
b. Describe the major biomolecules of a cell and explain how biochemical processes help maintain life and energy balance.

2.
a. Describe any four body systems, highlighting the major organs and their functions, and explain the overall role of each system in the human body.
b. Define immunoglobulins. Explain their types, and discuss their role in the body's defense mechanisms and their clinical significance.

3.
a. Explain the importance of pH regulation in the human body. Describe how buffer systems help maintain acid–base balance, and discuss why understanding this concept is important in nursing care.
b. Explain the processes involved in pharmacokinetics and describe how they influence the action and dosage of drugs in the body.

END OF PAPER