



2024

Ethiopian Health Professionals Licensing Examination(EHPLE)

INFORMATION BOOKLET

MIDWIFERY



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MINISTRY OF HEALTH-ETHIOPIA

የዘጋጅ ጤና ለሃገር ብልጽግና!
REACHING EXCELLENCE FOR HIGHER QUALITY SERVICE



Institute of
Educational Research

Message From the State Minister, Ministry of Health -Ethiopia



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Improving healthcare quality is a global priority for sustainable development, with high quality healthcare being a key component of universal health coverage. One strategy to maintain health care standards is through provision of health professional competency assessment. Consequently, in 2019, the Ministry of Health Ethiopia, initiated the Ethiopian Health Professionals Licensing Examination (EHPLE) for undergraduates in seven health disciplines, which has since expanded to include 13 health disciplines.

The main goal of this competency assessment is to identify health professionals with minimal competencies necessary to perform their duties safely and competently, thus enhancing the quality of health care services. This initiative is overseen by a dedicated Health and Health Related Institutions and Professionals' Regulatory Lead Executive Office (LEO), comprising four desks, which plays a pivotal role in strengthening the system and enabling the LEO to conduct the competency exam more extensively and with improved organization and quality.

It is important to note that this competency assessment differs significantly from traditional academic or employment examinations. Hence, this information booklet has been created to address the informational needs of both examinees and teaching faculty regarding the Ethiopian Health Professionals' Licensure Examination. Additionally, it aims to facilitate the assessment process, while promoting transparency and ensuring the sustainability of the program.

The preparation of this guideline involved the collaboration of esteemed experts from various higher education institutions, AAU-IER, the Ministry of Health, JHPIEGO-Ethiopia, Amref/HWIP, Health Professionals' Associations, and the Ministry of Education. Their invaluable contributions are acknowledged with sincere gratitude, alongside appreciation for the Ministry of Health staff for their unwavering commitment and hard work throughout the project.

Acknowledgements

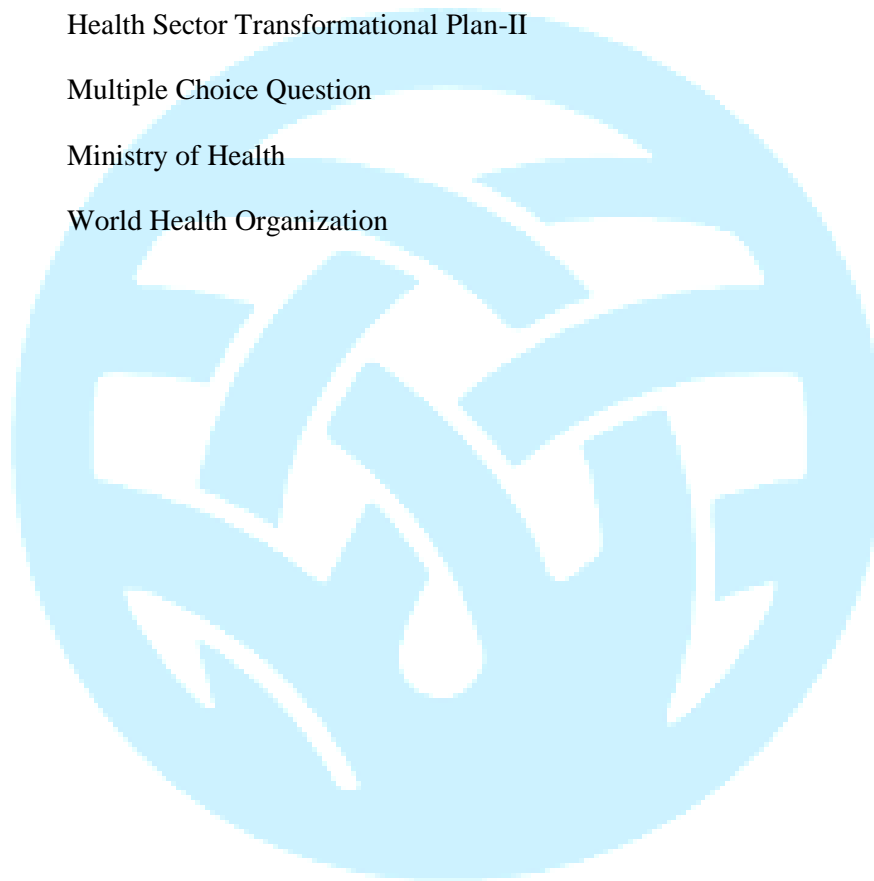
This Information Booklet for Ethiopian Health Professional's Licensing Examinations is a contribution from several educators, researchers, students and concerned individuals with a genuine interest to propel Ethiopia's medical and health sciences education forward.

The Ministry of Health is grateful for the contribution of many individuals and institutions in realizing this endeavor. Among these are Professional Associations, Student Association, Higher Education Institutions (both public and private), JHPIEGO-Ethiopia, AMREF/HWIP, MOE (Ethernet), UNFPA, AAU-IER and all HHRIPR LEOs staff.



Acronyms and Abbreviations

EHPLE	Ethiopian Health Professionals Licensing Examination
ETA	Educational and Training Authority
HEIs	Higher Education Institutions
HHrIPR-LEO	Health and Health-related Institutions and Professionals Regulatory Lead Executive Office
HSTP-II	Health Sector Transformational Plan-II
MCQ	Multiple Choice Question
MoH	Ministry of Health
WHO	World Health Organization



Purpose of the Information Booklet

The Ethiopian Health Professionals' Licensing Examination (EHPLE) Information Booklet serves as a comprehensive guide for those individuals seeking information about the exam. It typically outlines basic information for candidate registration, exam development and administration processes and procedures, result notification, and the licensing process. It also includes information on the exam framework, i.e., the exam domain, sub-domain, content, process, and task, with sample exam items specific to each profession.

The publication of this Booklet is crucial for the following reasons:

- **Clarity and guidance:** It provides clear information about the exam by ensuring candidates understand the necessary information to prepare them.
- **Accessibility:** It serves as a readily accessible resource for individuals pursuing to take the exam, consolidating essential information in one document and facilitating easy access to necessary details. It also helps other stakeholders who might be interested in such resources.
- **Transparency:** It promotes transparency in the examination process and fosters trust among stakeholders about the exam.

In summary, the publication of this Booklet is essential for creating a transparent, standardized, and accessible framework that guides candidates through the EHPLE process.

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Definition of terms

- **Domain:** a broad category or area of knowledge or skills of a profession
- **Sub-domain:** a subset of a broader domain that focuses on knowledge or skills related to the overarching domain
- **Content:** a more specific subcategory, which is a breakdown of the sub-domain
- **Task:** the responsibility, knowledge, skill, and attitude of a junior undergraduate professional in an actual work environment
- **Process:** a systematic sequence of steps or actions designed to achieve a specific outcome
- **Learning outcome:** a clear and measurable statement that describes what the examinee is expected to know or be able to do
- **Relative emphasis:** the proportional importance or weight assigned to different content areas or categories within the assessment
- **Item:** a particular multiple-choice question
- **Item developer:** a subject matter expert responsible for writing test items or questions that make up the examination
- **Item reviewer:** a subject matter expert responsible for reviewing and refining the test items or questions that make up the examination
- **Standard setting:** a process of determining a cut-off point or passing score for an exam
- **Item difficulty index:** a statistical measure that indicates the proportion of examinees who answered a particular test item correctly
- **Discrimination index:** a statistical measure that evaluates how well a particular test item differentiates between high-performing and low-performing examinees
- **Admission paper:** a printout paper generated by the system after completing registration that contains the examinee's photo, QR code, and necessary information

1. Introduction

1.1. Background

Competency assessment is one of the strategies for controlling the standard of healthcare services provided in healthcare facilities. The World Health Organization (WHO) recommends all healthcare professionals to have necessary competencies. In Ethiopia, the Health Sector Transformational Plan-II (HSTP-II) states competency assessment of all graduates before joining the health workforce as one of the strategic initiatives.

The Ministry of Health (MoH) launched the Ethiopian Health Professionals Licensing Examination (EHPLE) for undergraduates in 2019. The Health and Health-related Institutions and Professionals Regulatory Lead Executive Office (HHrIPR-LEO) of the Ministry of Health was given a mission to implement the ministry's objective to achieve competency-related goals. It has the responsibility to ensure that the EHPLE meets technical, professional, and legal standards, and to protect the health, safety, and welfare of the public by assessing candidates' abilities to practice competently.

Currently, the exam is given for 13 health professions (Medicine, Nursing, Public Health, Pharmacy, Medical Laboratory Science, Anesthesia, Midwifery, Dental Medicine, Medical Radiology Technology, Environmental Health, Psychiatric Nursing, Pediatric and Child Health Nursing, and Emergency and Critical Care Nursing). Since its introduction until February 2024, a total of 166293 examinees took the exam in 14 rounds.

1.2. The Rationale of EHPLE

One of the critical functions of the MoH is to guarantee the efficiency, quality, and equity of healthcare delivery and to protect the public from any undesirable consequences in healthcare delivery practices. As professionals' competence is a significant determinant of the quality of health, evaluation of health professionals' competence has now been given due attention. The licensing examination for health professionals serves as a crucial step to ensure that individuals entering the field meet specific competency standards. The sole aim of the competency assessment is to safeguard public health by verifying that health professionals have the minimal basic knowledge, attitude, and skill required to provide safe and effective care.

Licensing exams act as a preventive measure, ensuring that only competent professionals join the health workforce, which, in turn, contributes to reducing the occurrence of medical errors and enhancing overall patient safety. By setting standards through examinations, regulatory bodies strive to minimize the risk of medical errors caused by incompetence.

2. Key processes of EHPLE

EHPLE involves several key processes to ensure the quality and reliability of the examination.

2.1. Registration of candidates

EHPLE has a mandatory online registration system for both new and repeat candidates, which can be found at www.hple.moh.gov.et

Please note these important notes during registration.

New Test Takers:



- The list of eligible candidates from governmental and private Higher Education Institutions (HEIs) will be sent from Ministry of Education (MoE) to MoH and uploaded to the online registration system by MoH.
- Once the name of the candidate is uploaded to the system and registration has opened for the current exam round, the candidate must register at www.hple.moh.gov.et by uploading the necessary documents listed below.
 - ✓ a scanned original or temporary degree
 - ✓ a scanned government-issued ID, passport, driving license, or any other legal ID
 - ✓ a passport-size photo of the candidate
 - ✓ For international candidates:
 - Equivalence document from ETA
 - Completing an externship attachment according to assignment by the regulatory body
 - Externship attachment completion letter

Repeat Test Takers:



- Since the information about re-exam candidates already exists in the system, the candidate should register by directly going to www.hple.moh.gov.et. There is no need for re-exam candidates to upload their documents.

Both new and repeat candidates:



- After completing the registration, the candidate must download and print the admission paper by logging into his/her account using his/her email address and password
- The candidate can change the exam center by logging into his/her account only during the registration period
- Once an examinee has selected his/her exam center during the registration period, an application for center change will not be allowed

2.2. Task Analysis

The first step of exam development involves conducting a comprehensive task analysis study, which identifies the tasks, knowledge, skills, and abilities required from a junior undergraduate professional in the specific profession. The analysis is typically done through surveys, interviews, or observations of practitioners in the actual work environment, as well as through the Delphi method with subject matter experts.

2.3. Exam Blueprint

Based on the task analysis findings, a test blueprint is created that outlines the content areas to be covered in the examination and the weight or emphasis given to each area. This ensures that the exam reflects the key competencies and knowledge needed for competent practice in that specific profession. Blueprint or test specification is the matrix or chart that shows the number and type of test questions represented across the topics in the content area, consistent with the learning outcome and relative weight of the test given to each content area. The blueprint also identifies the percentage weighting of cognitive dimensions as the level of competence tested in each knowledge domain.

Key components of a blueprint are:

- Domain
- Sub-domain
- Content
- Task
- Process
- Learning outcome
- Assessment methods
- Assessment tools/instrument (test format)
- Relative emphasis (in percentage)

2.4. Item Development

The items are developed following specific guidelines to ensure clarity, relevance, and fairness. Subject matter experts with experience in the field are selected from HEIs to develop test questions (items) that align with the test blueprint. The exam questions will focus mainly on “knows how” according to the competency level of the Miller's pyramid. The items are produced in a secure location on designated computers that are free from internet connectivity. The items are scenario-based and constructed with stem, lead-in, and four options/alternatives. All items will have a single-best-answer type of Multiple Choice Question (MCQ) that addresses the learning outcome defined in each content area. Standard text books, updated guidelines, and standards are used as reference materials.

2.5. Item Review

Once developed, the items undergo a rigorous review process by item reviewers. The main purpose of the exam review process is to evaluate content relevance, technical accuracy, clarity, and sensitivity related to culture and religion. More experienced subject matter experts as well as psychometric experts will do the review to ensure the items meet psychometric standards. Subject matter experts shall review the items to confirm that they are accurate, clearly stated, and correctly keyed using the checklist. Psychometric experts shall reviews the items to ensure that they are not technically flawed. They also work on editorial review to check grammar, punctuation, and spelling errors. This helps ensure the reliability and validity of the items.

2.6. Standard setting method

The standard setting or cut-off point of the EHPLE is determined using the Modified-Angoff method, which is one of the most widely used and legally defensible standard setting approaches to set a cut-off point for high-stake competency examinations.

The method involves a panel of subject matter experts who evaluate each test question and then estimate the probability that a minimally competent examinee would answer each test item correctly. The average of the experts' predictions for a test question becomes its predicted difficulty. The average of the predicted difficulty values across all items on a test is the recommended cut-off point. This point indicates the minimum level of knowledge and skill required to pass.

2.7. Exam Administration

The EHPLE is administered following established protocols and guidelines. Proper test administration procedures, appropriate security measures, and appropriate consideration for test-takers who need special support will be applied during exam administration at exam centers. The exam is administered in selected HEIs nationally, where candidates can choose based on their convenience at the time of registration. The exam schedule will be posted ahead of time on the MOH website and official Facebook page. Examinees who have a valid admission paper are eligible to sit for the exam. The mode of exam administration is computer-based testing.

CAUTIONS

- Candidates are allowed



- Attend the orientation session in order to sit for the exam
- Arrive at the exam center on time
- Bring a legal ID and admission paper
- Complete the exam within the allotted time frame

➤ Candidates are **NOT** allowed



- To bring reference materials, blank paper, or notes into the exam center
- To smoke, eat, or drink in the exam room
- To bring mobile phones, tablets, smart watches, camera devices, eyeglasses, calculators or any type of electronic device into the exam center
- To bring their personal belongings to the exam center
- To bring weapons and sharp materials into the exam center
- To give or receive assistance to or from other candidates during the examination

2.8. Scoring and post exam analysis

Once the exam is completed, the scoring process begins. The exam scoring process involves computerized scoring using software.

Post-exam analysis is the process of analyzing examinees' responses to individual test items in order to assess the quality of the items and the exam as a whole. This phase helps to identify any poorly performing items that may need revision or removal from the exam. The item difficulty index, discrimination index, and reliability coefficient are elements of exam analysis.

2.9. Result notification and appeal management

After scoring and analysis, individual score reports are generated and provided to examinees through the website www.hple.moh.gov.et. After result notification, examinees can submit their appeal through phone or email within 10 working days after result notification.

2.10. Licensing

The list of examinees who passed the exam will be sent to regional and city administration regulatory bodies. A license is obtained from the regional/zonal health bodies where he/she permanently lives.

Requirements for professional licensing are:



- Passing the EHPLE
- Original or temporary degree
- Educational documents (10th and 12th certificates)
- Medical certificate
- Government issued ID
- Additional prerequisites based on the requirements of regional regulatory bodies

3. Exam Framework

The key broader professional roles, also known as domains or main knowledge areas serve as a building framework for the licensing examination content for *Midwifery professionals*. The domains are further divided into discrete professional attributes that constitute sub-units (also referred to as sub-domains) defining the professional identity of *Midwives*. Tasks specifying the performance level of each sub-domain serve as the final characteristic of the professional duties on which the licensing exam focuses.

The contents of the licensing examination are presented below, structured into key roles (domains), sub-units (sub-domains), and tasks. The examination emphasis/weight for each domain and sub-domain, out of the total 100% questions, is indicated in brackets.

Key professional roles/ domains

- ☐ Patient Care (62.0%)
- ☐ Scholar (12.0%)
- ☐ Professionalism (6.0%)
- ☐ Leadership and management (8.0%)
- ☐ Health promotion and disease prevention (12.0%)

Key role/ domain 1: Patient care (62.0%)

Description: This domain encompasses the professional roles of midwives in the provision of high-quality, safe, and patient-centered maternal, newborn, and child health care within their scope of practice. The provision of up-to-date, ethical, and resource-efficient midwifery care requires the application of integrated knowledge of biomedical, clinical, behavioral, and social sciences. This is conducted in collaboration with patients and their families, other healthcare professionals, and the community. As patient care providers, midwives shall implement the midwifery care process by collecting and interpreting information, making clinical decisions, carrying out diagnostic and therapeutic interventions, providing midwifery care, and evaluating interventions. To demonstrate competence in this domain candidate shall apply such integrated knowledge in the following sub-units/domains:

- ☐ Pre conception care (4.0%)
- ☐ Family planning (6.0%)
- ☐ Antenatal care (11.0%)
- ☐ Intrapartum care (14.0%)
- ☐ Post-partum care (8.0%)
- ☐ Neonatal & under five children care (6.0%)
- ☐ Gynecologic & abortion care (10.0%)
- ☐ Basic Midwifery Skills (3.0%)

Key role/ domain 2: Scholar (12.0%)

Description: This domain encompasses the professional role of *Midwifery professionals* in generating and utilizing scientific data to improve the health and well-being of the community and broaden their scientific knowledge within the *healthcare system and community setting*. Providing this service requires the application of integrated knowledge in research methods, measurements of health and disease, biostatistics, epidemiology, clinical audit, evidence-based practice, and research ethics. To demonstrate competence in this domain, candidates must possess applied knowledge in planning, problem identification, data collection, analysis, interpretation, report writing, and dissemination of research finding.

Key role/ domain 3: Professionalism (6.0%)

Description: This domain encompasses the professional commitment of *Midwifery professionals* to promoting the health and well-being of individuals and society through adhering to ethical standards, maintaining personal integrity, and upholding high standards of competence in all areas of *practice*. To exhibit competence in this domain, candidates must possess applied knowledge of ethical principles, medicolegal practices, effective communication, accountability to the profession and society, maintenance of professional excellence and personal health, continuous professional development, and professional values such as integrity, honesty, altruism, humility and motivated, compassionate, respectful care,.

Key role/ domain 4: Leadership and management (8.0%)

Description: This domain encompasses the professional role of *Midwifery professionals* in envisioning a high-quality healthcare system through self-awareness, active participation in healthcare team development and leadership, and managing health systems. Providing this service requires the application of integrated knowledge in continuous quality improvement, effective health system leadership, management, and healthcare ethics. To demonstrate competence in this domain candidate shall possess applied knowledge to plan, organize, staff, lead, execute, monitor, and control healthcare resources and activities.

Key role/ domain 5: Health promotion and disease prevention (12.0%)

Description: This domain encompasses the professional role of *Midwifery professionals* in enhancing the health and well-being of patients, communities, and the larger population they serve through health advocacy, disease prevention, health promotion, and the promotion of health equity. Providing this service takes an integrated understanding of determinants of health, health informatics, epidemiology, communicable disease control, and health education.

Table1: Exam Content for Midwifery Profession

DOMAIN 1: Patient care	
SUB-DOMAIN 1.1: Preconception care	
Content	Sub-content
Promote healthy pregnancy and disease prevention	<ul style="list-style-type: none"> • Common Medical /Surgical conditions: Diabetic Mellitus ,Thyroid disorder, Cardiac diseases, Hypertension, Asthma, Renal disease, Epilepsy, Gynecologic or obstetrics surgical conditions • Nutritional care during preconception care • Adverse effect of drugs on pregnancy: Anti-epileptic, oral anti-coagulants, ACE inhibitors, Tetracycline, Steroids, Anti-fungal, Anti-depressant, Chemotherapeutic..., • Vaccination
Sexual health and violence	Harmful traditional practices, Gender Based Violence (GBV), Psychosocial support to victims of Sexual violence
Mental health and psychoactive substance use	Psychosocial problems, Substance use
SUB-DOMAIN 1.2: Family planning	
Content	Sub-Content
Natural Methods	Lactational Amenorrhea Methods, Withdrawal method , Fertility awareness method
Barrier Methods	Male Condom , Female condom
Short acting methods	Injectable contraceptives, Combined contraceptive pills (COCs), Progestin-only pills (POPs), Emergency contraception
Long acting methods	Implants, Intrauterine Devices (IUDs)
Permanent methods	Vasectomy , Bilateral tubal ligation
Post-partum Family Planning	
SUB-DOMAIN 1.3: Antenatal care	
Content	Sub- Content
Early detection and treatment of problems and complication during pregnancy	Minor disorders of pregnancy , Major disorders of pregnancy, Medical/surgical disorders affecting pregnancy
Prevention of disease and health promotion	Immunization, nutrition, screening, counseling and supplement, Syphilis and UTI screening, HIV screening, Hepatitis screening, complication readiness and preparedness counseling, Blood group and RH
SUB-DOMAIN 1.4: Intrapartum care	
Content	Sub- Content
Normal labor	Physiology of Normal Labor, Care during labor and delivery
Abnormal labor	Preterm labor, Operative deliveries (Vacuum, Cesarean section (CS), Forceps, Episiotomy), Post term , Multiple pregnancy, premature rupture of membrane (PROM), Intrauterine growth restriction (IUGR)&intrauterine fetal death (IUFD), Trial of labor after CS, Rh Iso-immunization, Induction and Augmentation, Pregnancy induced hypertension, Other Medical Disorders, Antepartum Hemorrhage , Amniotic fluid & placental disorders,

	Obstetric emergencies (Shock, Uterine rupture, Amniotic Flood Index (AFI), Cord accident, shoulder dystocia...)
SUB-DOMAIN 1.5: Post-partum care	
Content	Sub- Content
Normal puerperium	Physiology of Normal puerperium, Care during puerperium
Abnormal puerperium	Postpartum hemorrhage (Primary, Secondary), Post-partum sepsis, Breast complications , Urinary complications , Deep vein thrombosis, Post-partum psychiatric disorders , Hypertensive disorders and Shock
SUB-DOMAIN 1.6: Neonatal and child care	
Content	Sub- Content
Essential newborn care	Physiologic adaptation of newborn (APGAR score, breathing), Thermoregulation (including Kangaroo mother care (KMC), skin to skin contact), Anthropometric measurements
Advanced Care	Newborn identification, Cord care, Eye care , Vit-k administration, Vaccination , Other immediate newborn cares , Neonatal asphyxia, Respiratory distress syndrome or Hyaline membrane disease (HMD) Neonatal Jaundice, Hypo and hyperglycemia, Metabolic disorders (hypokalemia), Birth injuries, Transient tachypnea, Meconium aspiration syndrome. congestive heart failure (CHF), Hypothermia, Neonatal Sepsis, Congenital infections, Chromosomal abnormality (down's syndrome...), Prematurity, Inappropriate weight for gestational age, Newborn resuscitation, Care for newborn with congenital malformations (Central Nervous System, Cardio Vascular System, Gastro-intestinal System, respiratory System, Renal System, Musculoskeletal system...), Management of sick newborn, Neonatal Danger Diagnosis signs, Nutrition, Thermoregulation, Newborn pain management, Immunization (including cold chain), Infant & child feeding, Malnutrition
Under five care	Growth monitoring, Child development, Infectious disease in children
SUB-DOMAIN 1.7: Gynecologic and abortion care	
Content	Sub- Content
Early pregnancy bleeding	Ectopic pregnancy, Gestational trophoblastic disease
Menstrual abnormalities	Dysmenorrhea, Amenorrhea, AUB
Gynecologic tumors	Breast Cancer, Myoma, Ovarian tumor, Endometrial Cancer (Ca), Cervical Ca, Urogenital Congenital anomalies
Gynecologic care across life spans	Adolescent gynecology , Gynecologic care for Menopausal/postmenopausal women
Other gynecologic disorders	Sexually Transmitted Infections (STI), Infertility, Pelvic inflammatory disease (PID), Pelvic organ prolapse
Comprehensive Abortion care	Safe abortion care (Including Family planning), Post-abortion care (Including Family planning)
Uro-gynecologic disorders	Urinary Incontinence, Obstetric fistula
SUB-DOMAIN 1.8: Fundamental Midwifery skills	
Content	Sub- Content
Basic of midwifery skills	IV Catheterization, Bladder catheterization , Vital sign measurement, Nasogastric tube for neonates, Medication administration (Routes of

	administration, Iv fluid preparation, drop calculation...), Wound care, Suturing skill (materials, techniques)
First aid	Respiratory arrest, Accidents, Poisoning, Burn

DOMAIN 2 : Professionalism	
Content	Sub-content
Professional ethics and medico-legal practice	Ethical principles, Factors that influence patient decision making, Professional advocacy , Standards of practice , relevant legal, frameworks in governing professional practice, Legal liability,
Principles of professionalism	Humanism (compassion, empathy, sympathy, respect, dignity) or Motivated, compassionate and respectful care, Accountability (responsibility) Lifelong learning (continuous professional development)
Communication and collaboration	Verbal and non-verbal communication, Barriers of communication, Inter- professional communication , Effective communication with client's/ client's family /therapeutic, communication, Building trust with client, Principles of communication , Recording and documentation, Respectful communication in health care team.

DOMAIN 3: SCHOLAR	
Content	Sub- Content
Research and Evidence based Practice	Problem identification, Setting objective, Sample size estimation, Data collection tool, Methods of data collection, Methods of data presentation and summarization, Estimation, Hypothesis testing, Measures of strength association, research disseminations/research to policy translation

DOMAIN 4: Leadership and management	
Content	Sub- Content
Health system Management	Management function, Concept and principles of management, Type of planning, Steps of planning , Organizing , Staffing, Leading, Decision making, Resource management, Primary health care (PHC) & Ethiopian health policy, Team work , Healthcare financing Monitoring and evaluation

DOMAIN 5: Health promotion and disease prevention	
Content	Sub- Content
Community diagnosis	Nutritional assessment, Environmental Health assessment, Behavioral models , Institutional health assessment, Disaster preparedness and response, Child and maternal health assessment
Community based intervention	Components of action plan, Teaching methods and materials, Level of disease prevention, Behavioral change and Communication (BCC), Nutritional interventions

Sample Questions

1. A 24-year-old mother comes to a family planning clinic to use contraception and seeking counseling about existing options. On history, she reported that she had been using other family planning methods and faced side effects and complications. In addition, she had a history of sexually transmitted infections and her partner also cooperated for any method preferred for her health.

What is the most appropriate family planning method for this woman?

- | | |
|-----------------------------|------------------------------|
| (A) Condom | (C) Tubal ligation |
| (B) Injectable depo provera | (D) Oral contraceptive pills |

Answer key: The answer is **A**

Explanation: As the patient faced side effects and complications on using other family planning methods, and also had a history of sexually transmitted infections, condom is the most appropriate method. This is because Condom is a short acting barrier family planning method used to prevent sexually transmitted infection and pregnancy, and has no side effects and complication(s). On the other hand, Option (B) Injectable depo provera, and option (D) oral contraceptive pills are hormonal contraceptives that have side effects and complications, and don't prevent sexually transmitted infections. In the same vein, Tubal ligation (Option C) is a long acting family planning method which also doesn't prevent sexually transmitted infections, and is recommended for couples who decide not to have more children and/or when the woman has a health problem.

2. A pregnant woman of 32 weeks gestational age comes to antenatal care clinic with a complaint of a gush of watery vaginal discharge before an hour. She had a history of preterm birth. Speculum examination indicated leakage of fluid from the cervix and cervical length was 1 cm. When nitrazine paper immersed in the collected fluid from posterior fornix, it turns from yellow to blue.

What is the most likely diagnosis in this scenario?

- | | |
|---------------------------|-------------------------------------|
| (A) Incontinency of urine | (C) Sexually transmitted infections |
| (B) Hydrorrhea gravidarum | (D) Premature rupture of membranes |

Answer key: The answer is **D**

Explanation: In this scenario, the pregnant woman was beyond 28 weeks of gestational age having a gush of watery discharge, explored through speculum examination and colour change from yellow to blue indicates premature rupture of membranes. Spontaneous rupture of the membranes any time beyond 28th week of pregnancy but before the onset of labour is called premature rupture of the membranes (PROM). On the other hand, Incontinency of urine (option A), takes place as the gestational age increases during pregnancy especially in the late months/weeks and no evidence of colour change. Hydrorrhea gravidarum (option B) is a state

where periodic watery discharge occurs probably due to excessive decidual glandular secretion. Sexually transmitted infections (STI) (option C) are mainly due to unsafe abortion, unclean delivery, poor menstrual hygiene and unhygienic IUD insertion.

3. A 29-year-old multigravida woman at 38 weeks of gestational age (reliable for date) comes to an antenatal care unit with a complaint of vaginal bleeding. She has explained that the bleeding is bright-red with no associated pain. On physical examination, she is healthy looking and her blood pressure is 120/75 mmHg, respiration rate is 17/min and pulse rate is 78/min. The finding, through abdominal examination, has shown cephalic presentation and 90/min; for fetal heart rate. On ultrasound evaluation: fetal heart beat(FHB) are seen, gestational age 38 weeks, amniotic fluid index(AFI) is 8 cm and placenta totally covered the internal os of the cervix.

What is the most appropriate management for this patient?

- (A) Admit her to ward and prepare for laparotomy
- (B) Admit her to ward and prepare for cesarean delivery
- (C) Admit her to ward and prepare for induction of labor
- (D) Admit her to ward and prepare for augmentation of labor

Answer key: The answer is **B**

Explanation: The woman is in the third-trimester or term pregnancy without symptom of true labor but has painless vaginal bleeding which indicates ante-partum hemorrhage (placenta previa). Since the placenta totally covers the internal os of the cervix, admitting the woman and preparing here for emergency cesarean delivery is the most appropriate management in this case. On the other hand, admitting here to ward and preparing for laparotomy (option A) is recommended for patients with uterine atony after delivery with ligation of pelvic vessels. Since internal os of the cervix is totally covered by the placenta, induction and /or augmentation of labour (options C & D) are contraindicated.

4. A 37-year-old multi gravida woman with a gestational age of 37 weeks comes to a health center with a complaint of pushing down pain of seven hours duration. Vaginal examination revealed a cervix of 5 cm dilated with station -2, membrane intact and pulsation of the cord was appreciated.

What is the most likely type of cord accident faced by the woman?

- (A) Occult cord prolapse
- (B) Overt cord prolapse
- (C) Cord presentation
- (D) Cord entanglement

Answer key: The answer is **C**

Explanation: This is because the membrane is intact and pulsation of the cord appreciated below the presenting part of the fetus. On the other hand, occult cord prolapse (option A) occurs when the membranes rupture and the cord descends below the presenting part. Overt cord prolapse (option B) occurs when the prolapsed cord may be palpated in the cervical canal, in the vagina or may be visible at the vulva. Cord entanglement (option D) is excessive cord length without describing the status of the membrane.

5. A Gravida-II woman comes to a health center with a complaint of pushing down pain of seven hours duration at 37 weeks of gestation. At admission, the cervical dilatation was 7cm and she followed with parthograph. After three hours, the cervix became fully dilated. The midwife notified the staffs and transferred the woman to delivery room.

What is the most appropriate next step in the preparation for assisting birth in this case?

- A. Clean the vulva and perineum with antiseptics
- B. Ensure equipment for delivery are available
- C. Sterile draping exposing immediate area around vulva
- D. Wash hands and wear personal protection equipment

Answer key: The answer is **B**

Explanation: In this woman, the fully dilated cervix indicates the woman is on second stage of labour. After notifying the staffs that delivery is imminent and transferring the woman to the delivery room, ensuring availability of equipment for delivery is the next appropriate step in the preparation of the woman for assisted delivery. Clean the vulva and perineum with antiseptics (option A) is among preparation steps but it has to be done after preparing equipment and putting personal protective materials. Sterile draping exposing immediate area around vulva (option C) comes after wearing personal protective and cleaning the vulva. Wash hands and wear personal protection equipment (option D) is essential step in the preparation but it has to follow ensuring availability of equipment for delivery.

6. A 37-year-old Gravida-II Para-I woman at 37 weeks of gestation comes to labour and delivery ward with complaints of severe headache and blurring of vision. On examination, 36 weeks sized gravid uterus, longitudinal lie, and cephalic presentation with no uterine contraction is observed. Vaginal examination revealed closed cervix.

What is the most appropriate step in the management of this woman?

- (A) Follow with parthograph
- (B) Counsel and send her home
- (C) Admit to labour and delivery ward
- (D) Allow to ambulate around the corridors

Answer key: The answer is **C**

Explanation: In this scenario, the woman's complaint of severe headache and blurring of vision at gestational age of 37 weeks indicates the woman has pre-eclampsia with severity feature at term. The most appropriate management for this case is admit to labour and delivery ward (option C). Delivery is recommended in the management of pre-eclampsia with severity feature of GA ≥ 37 weeks. Follow up with parthograph (option A) is indicated during active first stage of labor, but in this case, the woman is not in labor; she has no uterine contraction. Counsel and send her home (option B) and allow to ambulate around the corridors (option D) are not appropriate management as the woman has risk of convulsion. Headaches or visual disturbances can precede eclampsia (convulsion).

7. A 34-year-old Para-VI woman comes with a complaint of vaginal bleeding for one hour after giving birth at the local health center. The third stage was managed actively. On physical examination, pulse rate is 120/min and blood pressure is 80/50mmHg with excessive vaginal bleeding observed on physical examination.

What is the most likely diagnosis of the above case?

- | | |
|------------------|----------------------------|
| (A) Lochia rubra | (C) Secondary PPH |
| (B) Primary PPH | (D) Third stage hemorrhage |

Answer key: The answer is **B**

Explanation: In this case, the woman's diagnosis is primary PPH, because she is presented with vaginal bleeding after one hour of delivery with raised pulse rate and falling blood pressure. Primary PPH is hemorrhage which occurs within 24 hours following the birth of the baby which adversely affects the general condition of the patient evidenced by rise in pulse rate and falling blood pressure. Lochia rubra (option A) is a sloughed superficial layer of decidua 2-3 days after delivery. Secondary PPH (option C) occurs beyond 24 hours and within puerperium. Third stage hemorrhage (option D) is bleeding that occurs before expulsion of placenta.

8. A 24-year-old primiparous woman has been on her ninth postoperative day after cesarean delivery for an indication of obstructed labor. She has a complaint of involuntary leakage of urine. Otherwise, she has no dysuria, frequency or urgency of urination. A Sims' speculum shows continuous urine leakage through vagina.

What is the most likely diagnosis in this case?

- | | |
|-----------------------|---------------------------------|
| (A) Obstetric Fistula | (C) Stress urinary incontinence |
| (B) Voiding Disorder | (D) Painful Bladder Syndrome |

Answer key: The answer is **A**

Explanation: In this woman with a history of obstructed labor, the most likely diagnosis is obstetric fistula. Obstetric fistula results from prolonged compression effect on the bladder base between the head and symphysis pubis in obstructed labor. It causes continuous urine escape

through vagina. Voiding Disorder (option B) is difficulty of emptying the bladder which leads to retention of urine, not urinary incontinence. Stress incontinence (option C) is an involuntary escape of urine from the external urinary meatus due to sudden rise in intra-abdominal pressure, but in this case, the woman has urine leakage through vagina. Painful Bladder Syndrome (option D) is chronic inflammatory condition resulting in painful voiding and it may cause urinary incontinence, but in this case, the woman has no painful voiding and the urine leakage is through vagina.

9. Couples come to gynecology clinic with a complaint of being unable to conceive after a year of regular sexual intercourse. The husband has two children from his previous wife. The wife's reproductive history reveals 45-60 days interval of menses which lasts for Eight days without molar symptoms. She has never been diagnosed with STI or cervical neoplasm. Physical examination and Hysterosalpingogram findings are normal. After evaluation, the couples were diagnosed as infertile.

What is the most likely cause of infertility in this couple?

- | | |
|---------------------|--------------------|
| (A) Uterine factor | (C) Ovarian factor |
| (B) Cervical factor | (D) Tubal factor |

Answer key: The answer is C

Explanation: The most likely cause of infertility in this case is ovarian factor. Ovarian factor, ovulatory dysfunctions, includes anovulation or oligo-ovulation. A woman with cyclic menses at an interval of 25 to 35 days and duration of bleeding of 3 to 7 days is most likely ovulating. In this case, the wife has irregular menses which indicates anovulatory cycle. Uterine factor (option A) such as myoma, intrauterine adhesion and congenital anomalies are not identified through examination. Cervical factor (option B) commonly associated with abnormalities in mucus production after treatment for cervical neoplasia, is not observed in this case. Normal finding of Hysterosalpingogram excludes Tubal factor (option D) associated with tubal obstruction and pelvic adhesions.

10. A woman who has no history of antenatal follow up gave birth in a health center. During the newborn assessment, the midwife identified saclike cystic structure covered by a thin-layered membrane which contains spinal cord and meninges in the lumbosacral region. The newborn has weak extremities with diminished tone.

What is the most likely diagnosis in this case?

- | | |
|-------------------|--------------------------|
| (A) Meningocele | (C) Myelomeningocele |
| (B) Encephalocele | (D) Spina bifida occulta |

Answer key: The answer is C

Explanation: In this newborn with protrusion of spinal cord and meninges, the most likely diagnosis is myelomeningocele. Myelomeningocele is a neural tube defect characterized by

protrusion of spinal cord and meninges through a defect in the spinal cord. The newborn may have flaccid paralysis of the lower extremities. Meningocele (option A) is the herniation of the meninges through a defect in the posterior vertebral column. Encephalocele (option B) is protrusion of meninges with or without brain tissue through a midline defect in the skull. Spina bifida occulta (option D) is midline defect of the vertebral bodies without protrusion of the spinal cord or meninges.

11. A woman comes to a health center with complaints of her five-year-old child's diarrhea problem for the last three hours. She reported to a midwife on duty that the diarrhea was abrupt, watery, and looks like rice water.

What would be the most appropriate clinical diagnosis in this case?

- | | |
|----------------|-----------------|
| (A) Cholera | (C) Shigellosis |
| (B) Giardiasis | (D) Amoebiasis |

Answer key: The answer is A

Explanation: Cholera (option A) is an acute illness caused by an enterotoxin elaborated by vibrio cholerae with a clinical manifestation of an abrupt painless watery diarrhea which looks like rice water. Giardiasis (option B) is a protozoan infection principally of the upper small intestine associated with symptoms of chronic diarrhea, steatorrhea abdominal cramps, bloating, frequent loose and pale greasy stools, and fatigue and weight loss. Shigellosis (option C) is an acute bacterial disease involving the large and distal small intestine, caused by the bacteria of the genus shigella comprised of four species or serotypes. Amoebiasis (option D) is an infection due to a protozoan parasite that causes intestinal or extra-intestinal disease and with dysentery; feces are generally watery, containing mucus and blood.

12. A midwife has been assigned to coordinate maternal mortality reduction project in rural Ethiopia with low community mobility. The project is designed to reduce maternal mortality through improvement of contraceptive prevalence and utilization of contraceptives.

What is the most appropriate family planning delivery method in this case?

- | | |
|--------------------|---------------------|
| (A) Work place | (C) Market based |
| (B) Facility based | (D) Community based |

Answer key: The answer is D

Explanation: The objective of the project is to reduce high maternal mortality in the rural area by mobilizing the community and providing short-acting contraceptives. Work place (option A), this is designed to work in the specified place by integrating with a routine activity. This option doesn't go with the objective mentioned in the stem and it can't be the answer. Facility based

(option B) is one of the approved outlets for providing family planning services where it is stipulated that “all health institutions in Ethiopia can provide contraceptives based on their capacity. Here we are dealing with a separate project and can’t fit the project and is not the answer. Market based (option C) is designed to fill the gap between the public sector and for profit/private sector and is not the answer.

13. A 26-year-old Gravida II and Para I woman comes to a gynecology ward due to a complaint of absence of fetal movement. Ultrasound examination revealed negative fetal heartbeat. Thus, the woman was told to choose between an immediate induction of labour or to come back when labor starts spontaneously.

What ethical principle is implemented to manage the situation in this scenario?

- (A) Justice (C) Non-Maleficence
(B) Beneficence (D) Respect for autonomy

Answer key: The answer is **D**

Explanation: Respect for autonomy is one ethical principle where clients exercise their own self-determination. In the scenario, the client was given a choice where she chooses between treatment options without coercion, and exercising her self-determination by deciding what needs to be done for her own health. That means, the professional showed respect for her autonomy, and she exercised her right for self-determination. On the other hand, Justice (Choice A) is an act of treating all patients equally, was not discussed in the scenario. In the same manner, Beneficence (choice B), and non-maleficence (Choice C) might be considered but little is said in the scenario.

14. A midwife working as a head of health center strives to improve clients’ satisfaction on the care provided during pregnancy. He collects sufficient information from the clients for future improvement and he asks partners for technical and financial support. Hence, the midwife decides to improve client’s waiting time, counseling services and provide services as per the standard in the coming year.

What is the most appropriate management function the midwife implemented in this case?

- (A) Organizing (B) Planning (C) Leading (D) Staffing

Answer key: The answer is **B**

Explanation: Before a manager tackle any of the other functions, he or she must first devise a plan that specifies the necessary resource allocation, schedule, tasks, and other actions. In this scenario, a midwife performed necessary ground works to increase clients’ satisfaction by improving client’s waiting time, counseling services and providing services as per the standard in the coming year. Organizing (option A), here the midwife needs to secure technical and financial

support from the partners. Hence, the main issue does not deal with the task of organizing; for this reason option 'A' may not be the answer. On the other hand, there is nothing mentioned in the scenario about motivating and guiding the employees. Thus, leading (option C) is also not the answer. Staffing (option D), deals with assigning human resource to respective tasks which is not mentioned in the scenario. So, it is not the answer.

15. A study has been conducted to assess the difference on exposure status to cigarette smoking between lung cancer patients and healthy individuals. After selecting the representative sample from those with and without lung cancer, the investigator collects important information about their exposure status.

What is the most appropriate study design for this study?

- | | |
|------------------|---------------------|
| (A) Cohort | (C) Experimental |
| (B) Case control | (D) Cross sectional |

Answer key: The answer is **B**

Explanation: The case control study design is an observational study to identify the risk factor of a disease. The study includes people with a disease of interest and a suitable control group of people unaffected by the disease. The investigators collect data on disease occurrence at one point in time and exposures at a previous point in time. In the above scenario the investigator collects data on the previous exposure status of smoking among lung cancer patients and healthy individuals which makes the design to be case control study. But in Cohort (option A), the study starts from the exposure to identify the risk factor of disease. Similarly, for Experimental (option C), the study needs certain type of intervention by the researcher to identify the risk factor of disease whereas Cross sectional (Option D) is a design for a prevalence study. Therefore, the answer for the question is option B, case control.

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