

# ALLIED & HEALTHCARE INSTITUTE

## PG DIPLOMA IN OBSTETRICS & GYNECOLOGY (PGDOG)

PG Diploma in Obstetrics & Gynecology (PGDOG) is designed to provide **advanced theoretical knowledge and practical skills** in women's health, pregnancy management, childbirth procedures, reproductive physiology, and gynecological disorders. The program prepares students to work in **hospitals, maternity homes, fertility clinics, diagnostic centres, and community health settings.**

### Course Overview

- **Full Form:** PG DIPLOMA IN OBSTETRICS & GYNECOLOGY (PGDOG)
- **Duration:** 1 Year + 6 Months (Internship)
- **Eligibility:** Candidates must have completed **MBBS from a recognized medical university/institution.**
- Candidates who have completed **BAMS / BHMS / BUMS or equivalent medical qualification from a recognized institution** may also be eligible to apply.  
Minimum 45–50% marks

### Career Opportunities after P G D O G

- **Obstetrics & Gynecology Assistant**
- **Maternity Care Assistant**
- **Labour Room Assistant**
- **Gynecology OPD Assistant**
- **Ultrasound Assistant**
- **IVF clinic assistant**
- **Women Health Care Assistant**
- **Community Maternal Health Worker Assistant**

PAPER CODE	SUBJECT NAME	THEORY HOURS	PRACTICAL HOURS	THEORY MARKS	PRACTICAL MARKS
PGOG101	<b>ANATOMY &amp; PHYSIOLOGY OF FEMALE REPRODUCTIVE SYSTEM</b>	<b>45 Min</b>	<b>1 Hrs.</b>	<b>50</b>	<b>50</b>
PGOG102	<b>OBSTETRICS COMPLICATIONS</b>	<b>45 Min</b>	<b>1 Hrs.</b>	<b>50</b>	<b>50</b>
PGOG103	<b>INFERTILITY &amp; FAMILY PLANNING</b>	<b>45 Min</b>	<b>1 Hrs.</b>	<b>50</b>	<b>50</b>
PGOG104	<b>ULTRASOUND &amp; IMAGING IN OBSTETRICS &amp; GYNECOLOGY</b>	<b>45 Min</b>	<b>1 Hrs.</b>	<b>50</b>	<b>50</b>

# ANATOMY & PHYSIOLOGY OF FEMALE REPRODUCTIVE SYSTEM

## THEORY

<p><b>UNIT 1: Introduction to Female Reproductive System</b></p> <p><b>1.1 Overview</b></p> <ul style="list-style-type: none"> <li>• Definition and scope</li> <li>• Functions of the reproductive system</li> <li>• Growth &amp; development of reproductive organs</li> </ul> <p><b>1.2 General Concepts</b></p> <ul style="list-style-type: none"> <li>• Puberty: physical &amp; physiological changes</li> <li>• Menarche and menstrual health</li> <li>• Sexual maturity rating (Tanner stages)</li> </ul>	<p><b>UNIT 6: Fertilization &amp; Early Development</b></p> <ul style="list-style-type: none"> <li>• Gametogenesis (basic overview)</li> <li>• Sperm transport</li> <li>• Ovum transport</li> <li>• Fertilization steps</li> <li>• Formation of zygote</li> <li>• Blastocyst implantation</li> <li>• Placenta initiation</li> </ul>
<p><b>UNIT 2: External Genitalia (Vulva)</b></p> <p><b>2.1 Vulva – Structures</b></p> <ul style="list-style-type: none"> <li>• Mons pubis</li> <li>• Labia majora</li> <li>• Labia minora</li> <li>• Clitoris</li> <li>• Vestibule</li> <li>• Hymen</li> <li>• Bartholin’s glands</li> <li>• Skene’s glands</li> </ul> <p><b>2.2 Applied Anatomy</b></p> <ul style="list-style-type: none"> <li>• Bartholin cyst</li> <li>• Vulvovaginitis</li> <li>• FGM overview</li> <li>• Episiotomy site and relevance</li> </ul>	<p><b>UNIT 7: Physiology During Pregnancy</b></p> <ul style="list-style-type: none"> <li>• Confirmatory signs of pregnancy</li> <li>• Maternal physiological changes             <ul style="list-style-type: none"> <li>o Cardiovascular ,Respiratory , Renal ,Endocrine ,Breast changes</li> </ul> </li> <li>• Uterine growth</li> <li>• Placenta formation &amp; functions</li> <li>• Amniotic fluid formation &amp; functions</li> <li>• Fetal circulation basics</li> </ul>
<p><b>UNIT 3: Internal Genital Organs</b></p> <p><b>3.1 Vagina</b></p> <ul style="list-style-type: none"> <li>• Structure, layers, and blood supply</li> <li>• Functions: intercourse, childbirth, menstrual flow</li> <li>• Vaginal flora (Lactobacillus)</li> <li>• Vaginitis types</li> </ul> <p><b>3.2 Uterus</b></p> <ul style="list-style-type: none"> <li>• Location, size, shape</li> <li>• Parts: fundus, body, cervix</li> <li>• Layers: perimetrium, myometrium, endometrium</li> <li>• Blood supply and lymphatic drainage</li> <li>• Functions in menstruation, pregnancy, labour</li> </ul> <p><b>3.3 Cervix</b></p> <ul style="list-style-type: none"> <li>• External &amp; internal os</li> <li>• Cervical mucus changes</li> <li>• Cervical cancer screening basics (Pap smear)</li> </ul> <p><b>3.4 Fallopian Tubes</b></p>	<p><b>UNIT 8: Physiology of Labour &amp; Lactation</b></p> <p><b>8.1 Labour</b></p> <ul style="list-style-type: none"> <li>• Definition and stages of labour</li> <li>• Uterine contractions</li> <li>• Role of hormones (oxytocin, prostaglandins)</li> <li>• Cervical dilation</li> </ul> <p><b>8.2 Lactation</b></p> <ul style="list-style-type: none"> <li>• Mammary gland anatomy</li> <li>• Hormonal control (prolactin, oxytocin)</li> <li>• Milk ejection reflex</li> <li>• Colostrum &amp; mature milk differences</li> </ul>

- Parts: fimbriae, ampulla, isthmus, uterine part
- Ciliary movement
- Fertilization site
- Tubal blockage & ectopic pregnancy basics

### 3.5 Ovaries

- Structure and location
- Folliculogenesis
- Ovarian hormones – estrogen, progesterone
- Corpus luteum formation and function

## UNIT 4: Pelvic Cavity & Support Structures

### 4.1 Pelvic Bones & Pelvic Floor

- Pelvis anatomy
- True & false pelvis
- Levator ani muscles
- Perineum

### 4.2 Ligaments of the Reproductive System

- Broad ligament
- Round ligament
- Uterosacral ligament
- Cardinal ligament

### 4.3 Blood Supply, Nerve Supply & Lymphatics

- Uterine artery
- Ovarian artery
- Venous drainage
- Autonomic innervation
- Lymphatic drainage patterns

## UNIT 9: Common Clinical Conditions (Basic Theory)

- PCOS (basic physiology)
- Endometriosis
- Uterine fibroids
- Menopause & hormonal changes
- Dysmenorrhea
- Amenorrhea

## UNIT 5: Physiology of Reproduction

### 5.1 Menstrual Cycle

- Ovarian cycle:
  - o Follicular phase
  - o Ovulation , Luteal phase
- Endometrial cycle:
  - o Proliferative phase
  - o Secretory phase, Menstrual phase
- Hormonal regulation (FSH, LH, estrogen, progesterone)

### 5.2 Ovarian Function

- Follicle development
- Ovulation mechanism
- Role of corpus luteum

### 5.3 Uterine Physiology

- Cyclical changes
- Implantation preparation

## UNIT 10: Diagnostic Approaches in Female Reproductive System

- Pelvic examination basics
- Pap smear procedure
- Transabdominal & transvaginal ultrasound basics
- Hormone profile tests
- Colposcopy (introductory)

## PRACTICAL

<p>➤ <b>Identification of Models, Charts &amp; Specimens</b></p> <p>❖ <b>Female Reproductive Anatomy Models</b></p> <ul style="list-style-type: none"> <li>• External genitalia model (vulva)</li> <li>• Internal genital organ model</li> <li>• Vagina – structure &amp; layers</li> <li>• Uterus (fundus, body, cervix)</li> <li>• Fallopian tubes (fimbriae, ampulla, isthmus)</li> <li>• Ovaries &amp; follicles</li> <li>• Pelvic bones model</li> <li>• Pelvic floor muscles model</li> </ul> <p>❖ <b>Charts</b></p> <ul style="list-style-type: none"> <li>• Menstrual cycle chart</li> <li>• Uterine layers chart</li> <li>• Ovarian follicle development chart</li> <li>• Fertilization &amp; implantation chart</li> <li>• Placenta &amp; fetal membrane chart</li> <li>• Fetal development stages</li> </ul>	<p>➤ <b>Obstetric &amp; Gynecological Procedures (Demo + Supervised Practice)</b></p> <p>❖ <b>Specimen Collection</b></p> <ul style="list-style-type: none"> <li>• High vaginal swab (HVS) procedure (demo only)</li> <li>• Pap smear collection using Ayre’s spatula (dummy practice)</li> <li>• Urine sample collection for pregnancy test</li> </ul> <p>❖ <b>Basic Laboratory Demonstrations</b></p> <ul style="list-style-type: none"> <li>• Pregnancy test (urine card test)</li> <li>• Blood test charts: LH, FSH, estrogen, progesterone profiles</li> </ul> <p>❖ <b>Basic OT Preparation (Gynae Minor Procedures)</b></p> <ul style="list-style-type: none"> <li>• Preparing D&amp;C tray (demo)</li> <li>• Assisting in gynecology procedures (observation-based)</li> <li>• Identifying sterilized instruments</li> </ul>
<p>➤ <b>Microscopy &amp; Histology (Observation-Level Practical)</b></p> <ul style="list-style-type: none"> <li>• Vaginal smear (normal flora)</li> <li>• Uterus – endometrium (proliferative &amp; secretory phase)</li> <li>• Ovary – Graafian follicle</li> <li>• Placental villi</li> <li>• Breast tissue lactating vs. non-lactating (optional)</li> </ul>	<p>➤ <b>Skills in Labour &amp; Delivery Physiology</b></p> <p>❖ <b>Pelvic Anatomy &amp; Fetal Head Engagement</b></p> <ul style="list-style-type: none"> <li>• Pelvic inlet &amp; outlet dimensions</li> <li>• Fetal positions &amp; presentations</li> <li>• Mechanism of labour (model demonstration)</li> </ul> <p>❖ <b>Stages of Labour</b></p> <ul style="list-style-type: none"> <li>• Changes in cervix</li> <li>• Station of head</li> <li>• Partograph chart reading (practice)</li> </ul>
<p>➤ <b>Demonstration of Clinical Examination Skills</b></p> <p><b>General Examination</b></p> <ul style="list-style-type: none"> <li>• Recording vitals: BP, HR, PR, RR</li> <li>• Height, weight, BMI</li> <li>• Signs of anemia</li> <li>• Breast examination basics</li> </ul> <p><b>Abdominal Examination (Obstetric Relevance)</b></p> <ul style="list-style-type: none"> <li>• Inspection</li> <li>• Palpation (fundal height basic)</li> <li>• Fetal pole identification (model-based)</li> <li>• Auscultation of fetal heart sounds (Demo only)</li> </ul> <p><b>Pelvic Examination (Model-Based Only)</b></p> <p>Students learn:</p> <ul style="list-style-type: none"> <li>• Conduct of pelvic exam on mannequin</li> <li>• Identification of cervix &amp; fornices</li> <li>• Uterus position (anteverted, retroverted models)</li> </ul>	<p>➤ <b>OSCE (Objective Structured Clinical Examination) Skills</b></p> <ul style="list-style-type: none"> <li>• Identify uterine parts on model</li> <li>• Identify menstrual cycle phase from chart</li> <li>• Demonstrate Pap smear procedure on mannequin</li> <li>• Identify gyne instruments</li> <li>• Demonstrate fundal height measurement (on dummy)</li> <li>• Identify fetal skull landmarks</li> <li>• Read partograph correctly</li> </ul>

<ul style="list-style-type: none"> <li>• Vaginal wall support defects (prolapse model demonstration)</li> </ul>	
<p>➤ <b>Instrumentation in Obstetrics &amp; Gynecology</b> Students must <b>identify, handle, and explain uses of:</b></p> <p><b>Gynecology Instruments</b></p> <ul style="list-style-type: none"> <li>• Cusco’s speculum</li> <li>• Sims speculum ,Uterine sound ,Uterine dilator</li> <li>• Tenaculum ,Vulsellum ,Sponge holding forceps</li> <li>• Cervical biopsy forceps ,Ovum forceps</li> </ul> <p><b>Obstetric Instruments</b></p> <ul style="list-style-type: none"> <li>• Fetal skull + pelvis models</li> <li>• Obstetric forceps (theory only)</li> <li>• Vacuum extractor parts (theory only)</li> <li>• Cord clamp &amp; scissors</li> <li>• Episiotomy scissors</li> <li>• Baby weighing scale</li> <li>• Neonatal suction device (bulb)</li> </ul>	<p>➤ <b>Demonstrations Related to Reproductive Physiology</b></p> <p><b>Menstrual Cycle</b></p> <ul style="list-style-type: none"> <li>• Charting menstrual cycle phases</li> <li>• Hormonal changes explanation</li> <li>• Observation of menstrual calendar model</li> </ul> <p><b>Ovulation &amp; Fertilization</b></p> <ul style="list-style-type: none"> <li>• Animation/model demonstration</li> <li>• Ovulation test kit demonstration (optional)</li> </ul> <p><b>Placenta &amp; Fetal Circulation</b></p> <ul style="list-style-type: none"> <li>• Identification of placenta model</li> <li>• Umbilical vessels</li> <li>• Fetal circulation pathway demonstration</li> </ul>

## OBSTETRICS COMPLICATIONS

### THEORY

#### UNIT 1: Introduction to Obstetric Complications

- Definition of obstetric complications
- Importance in maternal & fetal health
- Risk assessment in pregnancy
- High-risk pregnancy: definition & classification
- Early detection & referral system

#### UNIT 6: Delivery Complications

##### 6.1 Preterm Labour

- Causes
- Diagnosis
- Prevention & management

##### 6.2 Post-term Pregnancy

- Risks
- Induction indications

##### 6.3 Shoulder Dystocia

- Recognition
- Maternal & fetal risks
- Maneuvers overview

##### 6.4 Complications of Operative Vaginal Delivery

*(Forceps/Vacuum – theory only)*

- Indications & risks
- Maternal trauma
- Fetal injuries

#### UNIT 2: Early Pregnancy Complications

##### 2.1 Abortions

- Types: threatened, inevitable, incomplete, complete, missed
- Causes & symptoms
- Diagnosis & management

#### UNIT 7: Postpartum Complications

##### 7.1 Postpartum Hemorrhage (PPH)

- Primary & secondary
- Causes (4 Ts)
- Uterine atony
- Atony management

<ul style="list-style-type: none"> <li>• Septic abortion (basics)</li> </ul> <p><b>2.2 Ectopic Pregnancy</b></p> <ul style="list-style-type: none"> <li>• Definition &amp; sites</li> <li>• Risk factors</li> <li>• Signs &amp; symptoms</li> <li>• Diagnosis (UPT, USG)</li> <li>• Emergency management overview</li> </ul> <p><b>2.3 Hyperemesis Gravidarum</b></p> <ul style="list-style-type: none"> <li>• Causes</li> <li>• Symptoms</li> <li>• Dehydration &amp; ketosis</li> <li>• Management</li> </ul> <p><b>2.4 Molar Pregnancy / GTD Basics</b></p> <ul style="list-style-type: none"> <li>• Hydatidiform mole – signs &amp; complications</li> <li>• Diagnosis (USG, <math>\beta</math>-hCG)</li> <li>• Follow-up basics</li> </ul>	<ul style="list-style-type: none"> <li>• Shock management basics</li> </ul> <p><b>7.2 Puerperal Sepsis</b></p> <ul style="list-style-type: none"> <li>• Causes</li> <li>• Symptoms</li> <li>• Prevention</li> <li>• Management</li> </ul> <p><b>7.3 Postpartum Depression</b></p> <ul style="list-style-type: none"> <li>• Signs</li> <li>• Early identification</li> </ul> <p><b>7.4 Thromboembolic Disorders</b></p> <ul style="list-style-type: none"> <li>• DVT basics</li> <li>• Risk factors in postpartum</li> </ul>
<p><b>UNIT 3: Medical Disorders Affecting Pregnancy</b></p> <p><b>3.1 Hypertensive Disorders</b></p> <ul style="list-style-type: none"> <li>• Gestational hypertension</li> <li>• Preeclampsia (mild &amp; severe)</li> <li>• Eclampsia</li> <li>• HELLP syndrome basics</li> </ul> <p><b>3.2 Diabetes in Pregnancy</b></p> <ul style="list-style-type: none"> <li>• GDM – risk factors, screening, management</li> <li>• Effects on mother &amp; fetus</li> </ul> <p><b>3.3 Anemia</b></p> <ul style="list-style-type: none"> <li>• Types: iron deficiency, megaloblastic</li> <li>• Effects on pregnancy</li> <li>• Management</li> </ul> <p><b>3.4 Thyroid Disorders</b></p> <ul style="list-style-type: none"> <li>• Hypothyroidism</li> <li>• Hyperthyroidism</li> <li>• Screening &amp; effects on fetus</li> </ul> <p><b>3.5 Cardiac Diseases in Pregnancy</b></p> <ul style="list-style-type: none"> <li>• Basic understanding</li> <li>• Warning signs</li> <li>• Management principles</li> </ul> <p><b>3.6 Respiratory Disorders</b></p> <ul style="list-style-type: none"> <li>• Asthma in pregnancy</li> <li>• Pulmonary edema basics</li> </ul>	<p><b>UNIT 8: Fetal Complications</b></p> <p><b>8.1 Fetal Growth Abnormalities</b></p> <ul style="list-style-type: none"> <li>• IUGR &amp; LGA</li> <li>• Consequences</li> </ul> <p><b>8.2 Congenital Anomalies</b></p> <ul style="list-style-type: none"> <li>• Causes</li> <li>• Types</li> <li>• Screening tests</li> </ul> <p><b>8.3 Prematurity Complications</b></p> <ul style="list-style-type: none"> <li>• RDS</li> <li>• NEC</li> <li>• Jaundice</li> <li>• Feeding issues</li> </ul> <p><b>8.4 Intrauterine Fetal Death (IUFD)</b></p> <ul style="list-style-type: none"> <li>• Causes</li> <li>• Diagnosis</li> <li>• Grief support</li> </ul>
<p><b>UNIT 4: Antepartum Complications</b></p> <p><b>4.1 Antepartum Hemorrhage (APH)</b></p>	<p><b>UNIT 9: Diagnostic Approach to Obstetric Complications</b></p> <ul style="list-style-type: none"> <li>• USG in obstetric complications</li> </ul>

- Placenta previa
- Abruptio placentae
- Vasa previa basics
- Diagnosis & emergency care

#### 4.2 Premature Rupture of Membranes (PROM/PPROM)

- Definition
- Risk factors
- Complications
- Management

#### 4.3 Intrauterine Growth Restriction (IUGR)

- Types
- Causes
- Diagnosis
- Fetal monitoring

#### 4.4 Polyhydramnios & Oligohydramnios

- Definitions
- Causes
- Maternal & fetal risks
- USG findings

#### 4.5 Rh Isoimmunization

- Rh incompatibility basics
- Prevention (Anti-D)
- Fetal risks

- Doppler studies
- NST, CTG basics
- Blood investigations
- Urine investigations
- High-risk pregnancy charting

### UNIT 5: Intrapartum (During Labour) Complications

#### 5.1 Abnormal Labour

- Prolonged labour                      Obstructed labour
- Precipitate labour                      Dysfunctional labour

#### 5.2 Malpresentations & Malpositions

- Breech
- Face & brow
- Shoulder presentation
- Occipito-posterior

#### 5.3 Cord Problems

- Cord prolapse
- Cord presentation
- Nuchal cord basics

#### 5.4 Fetal Distress

- Causes
- CTG monitoring basics
- Immediate management

#### 5.5 Amniotic Fluid Embolism (AFE) – Intro

- Signs
- Emergency response

### UNIT 10: Emergency Management in Obstetrics

- First-line response in obstetric shock
- Emergency drugs (oxytocin, MgSO<sub>4</sub> basics)
- Stabilization & referral protocol
- Maternal resuscitation basics
- Safe transport of obstetric patients

## PRACTICAL

### ➤ Identification of Instruments, Models & Charts

#### Obstetric Models

- Pelvic model
- Fetal skull model
- Placenta & cord model
- Breech presentation model
- Shoulder dystocia model
- Multiple pregnancy model
- Placenta previa & abruption charts
- Oligohydramnios / polyhydramnios chart

#### Practical Charts

- Partograph chart
- CTG / NST strip interpretation basics
- High-risk pregnancy chart
- APH & PPH flowchart
- MgSO<sub>4</sub> regimen chart

### ➤ Emergency Management Skills (Drills & Simulations)

#### PPH Emergency Drill

- Uterine massage
- Uterotonic drugs (demo)
- Estimation of blood loss
- Shock management basics
- Uterine balloon tamponade model demonstration

#### Eclampsia Drill

- Identify signs (case-based)
- MgSO<sub>4</sub> preparation & administration (dummy vials)
- Monitoring reflexes & urine output
- Positioning of patient
- Emergency referral steps

#### APH Emergency Response

- Placenta previa vs. abruption differentiation
- Initial resuscitation
- Managing bleeding

#### Shoulder Dystocia Drill (Model)

- Recognition on dummy
- McRoberts maneuver
- Suprapubic pressure
- Delivery of posterior arm (discussion only)

#### Cord Prolapse Drill

- Immediate actions
- Relieving pressure on cord (demo)
- Emergency transfer technique

### ➤ Clinical Examination Skills

#### Antenatal Examination

- Vitals recording
- Edema grading
- Fundal height measurement
- Abdominal palpation in high-risk pregnancy
- Fetal heart rate monitoring

#### Danger Signs in Pregnancy

#### Obstetric Palpation in Complications

- Breech identification
- Transverse lie
- OP position recognition
- Polyhydramnios / oligohydramnios assessment (model)

### ➤ Management of Specific Obstetric Complications (Simulation)

#### Preterm Labour

- Tocolytics basics
- Steroid injection simulation (dummy)
- Monitoring contractions

#### PROM/PPROM

- Sterile speculum on mannequin
- Amniotic fluid assessment demo

#### Hypertensive Disorders

- BP monitoring
- Proteinuria test demonstration
- Recognition of severe features

#### Diabetes in Pregnancy

- Glucometer use & GDM diet chart creation

➤ **Diagnostic Skills (Model + Chart Practice)**

**Partograph Interpretation**

- Identify labour abnormalities
- Slow progress, prolonged labour
- Fetal distress on partograph

**CTG (Cardiotocography) Basics**

- Normal CTG
- Late decelerations
- Tachycardia
- Variability changes

**USG Report Interpretation (Demo Level)**

- Low-lying placenta
- IUGR
- AFI interpretation
- Twin pregnancy basic findings

➤ **Obstetric Procedures**

**Assisted Deliveries**

- Vacuum extraction model introduction
- Forceps parts identification (*No hands-on delivery; only demonstration*)

**Episiotomy & Perineal Care**

- Episiotomy model demonstration
- Perineal repair steps (theory only)
- Perineal care post-delivery

**Newborn Care in Complicated Labour**

- NRP basics
- Neonatal suction
- APGAR scoring
- Immediate NICU referral indicators

**INFERTILITY & FAMILY PLANNING**

**THEORY**

**UNIT I – Introduction to Fertility & Infertility**

- Definition of fertility, fecundability, fecundity
- Definition of infertility:
- Primary infertility
- Secondary infertility
- Epidemiology, prevalence in India & globally
- Normal reproductive physiology:
- Hypothalamic–pituitary–ovarian axis
- Ovulation physiology
- Normal male reproductive physiology
- Timing of ovulation & fertile window

**UNIT V – Assisted Reproductive Techniques (ART)**

- Intrauterine insemination (IUI) – indications & steps
- IVF – indications, steps, stimulation protocols
- ICSI
- Donor sperm program
- Donor oocyte program
- Surrogacy – legal & ethical guidelines
- Cryopreservation of gametes & embryos
- Preimplantation genetic testing (PGT)

**UNIT II – Causes of Infertility**

**1. Female Factors**

- Ovulatory disorders
  - PCOS
  - Hypothyroidism / Hyperthyroidism
  - Hyperprolactinemia
  - Premature ovarian insufficiency (POI)
- Tubal factors
  - Pelvic inflammatory disease
  - Post-surgical adhesions
  - Tuberculosis
- Uterine factors
  - Fibroids
  - Polyps

**UNIT VI – Family Planning & Contraception**

**1. Introduction**

- Definition of family planning
- National family planning program (India)
- Importance of birth spacing
- Reproductive & Child Health (RCH) Program

**2. Natural Methods**

- Calendar method
- Basal body temperature
- Lactational amenorrhea method (LAM)

**3. Barrier Methods**

- Male condoms
- Female condoms

- Asherman syndrome
- Congenital anomalies (septate uterus, bicornuate uterus)
- Endometriosis
- Cervical factors (hostile mucus)

## 2. Male Factors

- Disorders of spermatogenesis
- Varicocele
- Ejaculatory dysfunction
- Obstructive azoospermia
- Endocrine disorders
- Lifestyle factors (smoking, alcohol, obesity)

## 3. Combined & Unexplained Infertility

- Co-existing causes in both partners
- Unexplained infertility – definition & evaluation

- Diaphragm
- Spermicides

## 4. Hormonal Contraception

- Combined oral contraceptives
- Progestin-only pills
- Injectable contraceptives (DMPA)
- Transdermal patches
- Vaginal rings

## 5. Intrauterine Devices (IUD/IUCD)

- Copper T
- Cu 375, Cu 380A
- LNG-IUS (Mirena)
- Postpartum IUCD insertion

## 6. Permanent Methods

- Female sterilization
  - o Mini-laparotomy
  - o Laparoscopic
    - Male sterilization
  - o Vasectomy
  - o No-scalpel vasectomy

## 7. Emergency Contraception

- Levonorgestrel pill
- Ulipristal acetate
- Copper IUCD

## UNIT III – Evaluation of Infertility

### 1. Female Evaluation

- History & physical examination
- Menstrual assessment, ovulation tracking
- Hormonal evaluation
  - o FSH, LH, TSH, Prolactin
  - o AMH (Ovarian reserve)
  - o Progesterone (Day 21)
    - Imaging
  - o Baseline pelvic ultrasound
  - o Follicular monitoring
  - o Hysterosalpingography (HSG)
  - o Sonosalpingography (SIS/HyCoSy)
  - o Laparoscopy & hysteroscopy
    - Endometrial biopsy (rarely indicated)

### 2. Male Evaluation

- Semen analysis (WHO criteria)
- Hormonal profile: FSH, LH, Testosterone
- Scrotal ultrasound
- Genetic testing in azoospermia

## UNIT VII – Complications & Failure of Contraceptives

- Contraceptive failure rates
- Complications of IUCD
- Complications of sterilization
- Ectopic pregnancy risk

### 3. Couple Evaluation

- Coital history
- Lifestyle & occupational factors
- Psychological impact assessment

## UNIT IV – Management of Infertility

### 1. General Management

- Lifestyle modification
- Weight reduction
- Smoking/alcohol cessation
- Counseling and mental health support

### 2. Medical Management – Female

- Ovulation induction
  - o Clomiphene citrate
  - o Letrozole
  - o Gonadotropins
    - Management of PCOS
    - Management of thyroid disorders
    - Treatment of hyperprolactinemia (Cabergoline, Bromocriptine)

### 3. Surgical Management – Female

- Laparoscopic
  - o Adhesiolysis
  - o Ovarian drilling
  - o Treatment of endometriosis
  - o Tubal recanalization
    - Hysteroscopic
  - o Polypectomy
  - o Fibroid removal
  - o Septal resection

### 4. Male Management

- Treatment of infections
- Hormonal therapy
- Varicocele surgery
- Sperm retrieval techniques (TESA, PESA)

## UNIT VIII – Ethical, Legal & Counseling Aspects

- Informed consent in infertility & family planning
- Legal framework: ART Act, Surrogacy Act
- Sex selection laws (PCPNDT Act)
- Counseling for couple infertility
- Psychological considerations

## PRACTICAL

### SECTION A – INFERTILITY SECTION

#### ➤ History Taking & Clinical Examination

- Complete infertility history (female and male partner)
- Menstrual & ovulation history
- Sexual history & coital timing
- Past PID / TB / surgery history

### B – FAMILY PLANNING

#### ➤ Counseling for Contraceptive Choices

- Eligibility criteria assessment
- WHO Medical Eligibility Criteria (MEC) application
- Tailoring methods: postpartum, post-abortion, high-risk women

<ul style="list-style-type: none"> <li>Female general &amp; systemic examination</li> <li>Pelvic examination – per speculum &amp; per vaginum</li> <li>Male partner clinical evaluation basics</li> </ul>	<ul style="list-style-type: none"> <li>Documented counseling session (minimum 5 cases)</li> </ul>
<p>➤ <b>Basic Investigations – Interpretation &amp; Hands-On</b></p> <ul style="list-style-type: none"> <li>Semen analysis – sample collection, normal values, interpretation</li> <li>Thyroid tests, prolactin, FSH, LH, AMH interpretation</li> <li>Day 2 and Day 21 hormonal profile assessment</li> <li>Baseline pelvic ultrasound interpretation</li> <li>Follicular monitoring charts</li> <li>HSG report interpretation</li> <li>SIS/HyCoSy image interpretation</li> <li>Endometrial thickness assessment</li> </ul>	<p>➤ <b>Temporary Contraceptive Methods</b></p> <ul style="list-style-type: none"> <li>Condom demonstration (male &amp; female)</li> <li>Diaphragm &amp; cervical cap demonstration</li> <li>Oral contraceptive pill counseling demonstration</li> <li>Injectable contraceptive (DMPA) administration</li> <li>Emergency contraception counseling</li> <li>Vaginal ring &amp; patch demonstration (model-based)</li> </ul>
<p>➤ <b>Assisted Reproductive Techniques (Observation &amp; Skill)</b></p> <ul style="list-style-type: none"> <li>Ovulation induction protocols</li> <li>Trigger administration &amp; monitoring</li> <li>IUI procedure</li> </ul> <p>o Semen preparation techniques</p> <p>o Catheter insertion</p> <ul style="list-style-type: none"> <li>IVF cycle monitoring</li> <li>Egg retrieval (observation)</li> <li>Embryo transfer (observation)</li> <li>Sperm retrieval (PESA/TESA) – observation</li> </ul>	<p>➤ <b>Intrauterine Device (IUD/IUCD) Skills Hands-on (Mannequin Practice)</b></p> <ul style="list-style-type: none"> <li>Cu-T insertion</li> <li>Cu-T removal</li> <li>LNG-IUS insertion (model-based)</li> <li><b>Clinical Observation</b></li> <li>Postpartum IUCD insertion</li> <li>Post-abortion IUCD insertion</li> <li>Management of IUD complications</li> </ul> <p>o Missing strings</p> <p>o Expulsion</p>
<p>➤ <b>Surgical Skills (Assistance &amp; Observation)</b></p> <ul style="list-style-type: none"> <li>Diagnostic laparoscopy for infertility</li> <li>Laparoscopic treatment of endometriosis</li> <li>Laparoscopic adhesiolysis</li> <li>Tubal cannulation / recanalization</li> <li>Hysteroscopy (Polypectomy, Septum resection)</li> </ul> <p>o Myomectomy (submucous)</p> <ul style="list-style-type: none"> <li>Operative findings recording and reporting</li> </ul>	<p>➤ <b>Permanent Contraception – Observation</b></p> <ul style="list-style-type: none"> <li>Mini-lap tubal ligation</li> <li>Laparoscopic tubal ligation</li> <li>Vasectomy</li> <li>No-scalpel vasectomy technique</li> <li>Preoperative &amp; postoperative care for sterilization patients</li> </ul>
	<p>➤ <b>Family Planning Clinic / OPD Work</b></p> <ul style="list-style-type: none"> <li>Register maintenance</li> <li>Consent documentation</li> <li>Method selection documentation</li> <li>Follow-up visits</li> <li>Management of contraceptive side effects</li> </ul> <p>o Irregular bleeding, Pain</p> <p>o IUCD-associated complaints</p>

## ULTRASOUND & IMAGING IN OBSTETRICS & GYNECOLOGY

## THEORY

### UNIT 1 – BASICS OF ULTRASOUND

- History & evolution of medical ultrasonography
- Basic physics of ultrasound
- o Sound waves, frequency, wavelength
- o Acoustic impedance & attenuation
- o Reflection, refraction, scattering
  - Types of transducers & their uses
- o Linear, convex, sector, endocavitary
  - Ultrasound modes
- o A-mode, B-mode
- o M-mode
- o Doppler ultrasound
- o Color Doppler, Power Doppler
  - Image formation & optimization
- o Gain, depth, focus, TGC
  - Safety in ultrasonography
- o ALARA principle
- o Bioeffects & thermal index

### UNIT 6 – GYNECOLOGICAL ULTRASOUND

- Transabdominal pelvic scan
- Transvaginal ultrasound (TVS)
- Normal uterus & ovaries – measurement & appearance
- Endometrial thickness
- Ovarian folliculometry
- Uterine pathologies
- o Fibroids
- o Adenomyosis
- o Polyps
- o Congenital uterine anomalies
  - Ovarian pathologies
- o Functional cysts
- o Endometrioma
- o Dermoid cyst
- o Polycystic ovaries
- o Ovarian torsion
  - Tubal pathologies
- o Hydrosalpinx
- o Ectopic pregnancy
  - Hystero-salpingography (HSG) – basics
  - Sonosalpingography (SSG) / HyCoSy
  - Pelvic inflammatory disease imaging
  - Pelvic masses – benign vs malignant features

### UNIT 2 – FIRST TRIMESTER ULTRASOUND

- Indications for early pregnancy scan
- Dating of pregnancy
- Identification of gestational sac, yolk sac, fetal pole
- Diagnosis of early pregnancy failure
- o Anembryonic pregnancy
- o Missed abortion
  - Ectopic pregnancy
- o Tubal, cervical, scar & ovarian ectopic
  - Molar pregnancy
  - Multiple gestation
- o Chorionicity & amnionicity
  - Nuchal translucency (NT) scan
  - CRL measurement principles
  - Early screening for genetic abnormalities
- o Nasal bone
- o Ductus venosus
- o Tricuspid regurgitation

### UNIT 7 – IMAGING IN GYNECOLOGICAL EMERGENCIES

- Ovarian torsion – signs
- Ruptured ectopic pregnancy
- Hemorrhagic ovarian cyst
- Acute PID / tubo-ovarian abscess
- Retained IUD complications
- Post-operative complications

### UNIT 3 – SECOND TRIMESTER ULTRASOUND

- Fetal biometry
- o BPD, HC, AC, FL, HL
  - Growth assessment
  - Anomaly scan / Level II scan
- o CNS anomalies
- o Cardiac defects
- o GI & GU system anomalies
- o Skeletal anomalies
- o Facial anomalies
  - Placental localization
  - Cervical length measurement
  - Multiple pregnancy scan
  - Soft markers for aneuploidy
  - Fetal sex determination (legal restrictions)

### UNIT 8 – IMAGING OF THE BREAST

- Breast ultrasound basics
- Evaluation of breast lumps
- Simple & complex cysts
- Fibroadenoma
- Malignancy features on ultrasound
- Pregnancy & lactation-related breast conditions

### UNIT 4 – THIRD TRIMESTER ULTRASOUND

- Fetal growth assessment
- o EFW (Estimated Fetal Weight)
- o FGR identification
  - Amniotic fluid assessment (AFI, SDP)
  - Biophysical profile (BPP)
  - Doppler studies
- o Umbilical artery , MCA
- o Uterine artery ,Ductus venosus
  - Fetal well-being assessment
  - Placenta previa & accreta spectrum screening
  - Presentation & lie
  - Assessment before labor induction

### UNIT 9 – INTERVENTIONAL ULTRASOUND (OBYN)

- Ultrasound-guided aspirations
- o Ovarian cyst aspiration
- o Tubo-ovarian abscess drainage (where indicated)
  - Amniocentesis
  - Chorionic villus sampling (CVS)
  - Fetal procedures (observation-level only)
- o Thoracocentesis
- o Fetal reduction (for multifetal gestation)

### UNIT 5 – OBSTETRIC IMAGING TECHNIQUES

- 3D/4D ultrasound
- Fetal echocardiography
- MRI in pregnancy
- o Indications
- o Safety considerations
  - Imaging in obstetric emergencies
- o Abruptio placentae
- o PPH with retained products
- o Ruptured uterus
- o Placenta accreta spectrum

### UNIT 10 – LEGAL & ETHICAL ASPECTS

- PCPNDT Act – rules & regulations
- Documentation requirements
- Restrictions on fetal sex determination
- Safe ultrasound practice standards
- Machine maintenance & calibration

## PRACTICAL

### SECTION A – BASIC ULTRASOUND SKILLS

- Machine Handling & Safety

### SECTION B – OBSTETRIC ULTRASOUND

- First Trimester Scans

- Switching on/off & basic machine settings
- Transducer types identification
- Application of gel & probe hygiene
- Machine ergonomics
- Image optimization
  - o Gain
  - o Depth
  - o Focus
  - o Freeze
  - o Cine-loop
- ALARA principle & safe scanning
- Recognizing artifacts

- Pregnancy confirmation scan
- Gestational sac & yolk sac identification
- CRL measurement
- Heart activity (M-mode)
- Early pregnancy failure features
- Ectopic pregnancy detection (TVS/TAUS)
- Multiple pregnancy: chorionicity assessment
- First trimester screening markers
  - o Nuchal translucency (NT)
  - o Nasal bone
  - o Ductus venosus (observation)

➤ **Second Trimester Scans**

- Fetal biometry measurements
  - o BPD, HC, AC, FL
- Placental localization
- Fetal spine, heart, kidneys, long bones – basic evaluation
- Cervical length measurement (TVS demonstration)
- Amniotic fluid assessment (AFI/SDP)
- Anomaly scan reporting (observation-based)
- Soft markers for aneuploidy (observation & interpretation)

➤ **Third Trimester Scans**

- Fetal growth assessment
- Estimated fetal weight (EFW) calculation (software use)
- Biophysical profile (BPP) scoring
- Doppler studies
  - o Umbilical artery
  - o MCA
  - o Uterine artery
  - o Ductus venosus (observation)
- Presentation & fetal position assessment
- Placenta previa evaluation
- Placenta accreta spectrum – ultrasound signs

**C- GYNECOLOGICAL ULTRASOUNDSECTION**

**Gynecological Scan (TVS + TAS)**

- Uterine size & orientation
- Endometrial thickness measurement
- Ovarian morphology
- Identification of:
  - o Fibroids, Adenomyosis , Polyps
  - o Congenital uterine anomalies
- Ovarian pathologies

**D-SPECIALIZED PROCEDURESSECTION**

**Sonosalphingography (SSG) / HyCoSy**

- Patient preparation
- Catheter insertion (simulation)
- Tubal patency assessment

**Interventional Procedures**

- Amniocentesis

- o Functional cysts, Endometrioma, Dermoid cyst
- o PCOS follicles, Ovarian torsion signs

### Folliculometry / Ovulation Monitoring

- Counting follicles
- Measurement of dominant follicle
- Endometrial pattern recording
- Ovulation documentation

### Tubal & Pelvic Pathology Imaging

- Hydrosalpinx
- PID features
- Tubo-ovarian abscess (observation)
- Ectopic pregnancy features
- Free fluid in the pouch of Douglas

- Chorionic villus sampling (CVS)
- Ovarian cyst aspiration
- Guidance in D&C / evacuation

### 3D/4D Ultrasound

- Switching to 3D/4D mode
- Fetal face and spine views
- Volume acquisition

## E – OBSTETRIC & GYNECOLOGY IMAGING

### Imaging Modalities

- X-ray pelvis in obstetrics (limited use)
- MRI in pregnancy (cases)
- CT/MRI in gynecological conditions
  - o Fibroids, Adenomyosis, Ovarian tumors, Pelvic masses
- 10 obstetric scans (different trimesters)
- 5 gynecology scans
- 3 Doppler reports
- 3 folliculometry cases
- 2 ultrasound emergency cases

## SEMESTER – II

PAPER CODE	SUBJECT NAME	THEORY HOURS	PRACTICAL HOURS	THEORY MARKS	PRACTICAL MARKS
PGOG201	EMBRYOLOGICAL & FETAL DEVELOPMENT	45 Min	1 Hrs.	50	50
PGOG202	PSYCHOLOGY OF PREGNANCY, LABOUR & PUERPERIUM	45 Min	1 Hrs.	50	50
PGOG203	ANTENATAL & POSTNATAL CARE	45 Min	1 Hrs.	50	50
PGOG204	BASIC GYNECOLOGICAL DISORDER	45 Min	1 Hrs.	50	50

## EMBRYOLOGICAL & FETAL DEVELOPMENT

### THEORY

### 1. Basic Concepts of Embryology

- Definition and scope of embryology
- Importance in obstetrics and gynecology
- Gametogenesis:
  - o Spermatogenesis
  - o Oogenesis
- Menstrual cycle and ovulation
- Fertilization:
  - o Site, process, and mechanisms
  - o Capacitation and acrosomal reaction
- Formation of zygote

### 9. Congenital Anomalies

- Definition and classification:
  - o Malformations ,Deformations,Disruptions
- Causes:
  - o Genetic factors
  - o Environmental factors (teratogens)
    - Common congenital anomalies:
  - o Neural tube defects
  - o Congenital heart defects
  - o Cleft lip and palate
    - Prenatal diagnosis:
  - o Ultrasound
  - o Amniocentesis
  - o Chorionic villus sampling (CVS)

### 2. Early Embryonic Development (First 2 Weeks)

- Cleavage and blastocyst formation
- Morula and blastula stages
- Implantation:
  - o Normal implantation process
  - o Abnormal implantation (ectopic pregnancy)
    - Formation of:
  - o Bilaminar germ disc
  - o Amniotic cavity
  - o Yolk sac
    - Development of trophoblast:
  - o Cytotrophoblast
  - o Syncytiotrophoblast

### 10. Teratology

- Definition and principles
- Critical periods of development
- Teratogenic agents:
  - o Drugs (e.g., thalidomide)
  - o Infections (TORCH)
  - o Radiation
    - Effects on fetal development

### 3. Third Week Development (Gastrulation)

- Formation of trilaminar germ disc:
  - o Ectoderm
  - o Mesoderm
  - o Endoderm
- Primitive streak formation
- Notochord development
- Neurulation:
  - Neural tube formation
  - Neural crest cells
- Development of somites

### 11. Fetal Growth and Development Disorders

- Intrauterine Growth Restriction (IUGR)
- Macrosomia
- Causes and risk factors
- Assessment methods:
  - Clinical
  - Ultrasound
- Management principles

### 4. Organogenesis (Weeks 4–8)

- Folding of embryo:
  - o Cephalocaudal and lateral folding
    - Development of major organ systems:
  - o Cardiovascular system (first functional system)
  - o Nervous system
  - o Gastrointestinal tract

### 12. Fetal Well-being Assessment

- Clinical methods:
  - o Fundal height
  - o Fetal movement count
    - Investigations:
  - o Ultrasound
  - o Doppler studies

<ul style="list-style-type: none"> <li>o Respiratory system <ul style="list-style-type: none"> <li>• Limb development</li> <li>• External body features</li> <li>• Teratogenic period and critical stages</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>o Non-stress test (NST)</li> <li>o Biophysical profile (BPP)</li> </ul>
<p><b>5. Placenta and Fetal Membranes</b></p> <ul style="list-style-type: none"> <li>• Development of placenta:</li> <li>o Chorion formation</li> <li>o Chorionic villi (primary, secondary, tertiary) <ul style="list-style-type: none"> <li>• Placental circulation:</li> </ul> </li> <li>o Maternal and fetal circulation <ul style="list-style-type: none"> <li>• Functions of placenta:</li> </ul> </li> <li>o Nutrition, respiration, excretion</li> <li>o Endocrine functions (hCG, progesterone, estrogen) <ul style="list-style-type: none"> <li>• Fetal membranes:</li> </ul> </li> <li>o Amnion, Chorion, Yolk sac, Allantois <ul style="list-style-type: none"> <li>• Umbilical cord: <ul style="list-style-type: none"> <li>o Structure and function</li> </ul> </li> </ul> </li> </ul>	<p><b>13. Genetics in Embryology</b></p> <ul style="list-style-type: none"> <li>• Basic genetics:</li> <li>o DNA, genes, chromosomes <ul style="list-style-type: none"> <li>• Chromosomal abnormalities:</li> </ul> </li> <li>o Down syndrome</li> <li>o Turner syndrome</li> <li>o Klinefelter syndrome <ul style="list-style-type: none"> <li>• Inheritance patterns:</li> </ul> </li> <li>o Autosomal dominant</li> <li>o Autosomal recessive</li> <li>o X-linked</li> </ul>
<p><b>6. Fetal Development (9 Weeks to Birth)</b></p> <ul style="list-style-type: none"> <li>• Definition of fetal period</li> <li>• Growth and maturation of fetus</li> <li>• Trimester-wise development:</li> <li>o First trimester, Second trimester, Third trimester <ul style="list-style-type: none"> <li>• Fetal movements and viability</li> <li>• Measurement of fetal growth:</li> </ul> </li> <li>o Crown-rump length (CRL), Biparietal diameter (BPD) <ul style="list-style-type: none"> <li>• Fetal circulation:</li> </ul> </li> <li>o Ductus venosus, Foramen ovale Ductus arteriosus</li> </ul>	<p><b>14. Clinical Correlation in Obstetrics</b></p> <ul style="list-style-type: none"> <li>• Importance of embryology in:</li> <li>o Antenatal care</li> <li>o Diagnosis of anomalies</li> <li>o Genetic counseling <ul style="list-style-type: none"> <li>• Role in infertility</li> <li>• Role in assisted reproductive technologies (ART)</li> </ul> </li> </ul>
<p><b>7. Amniotic Fluid</b></p> <ul style="list-style-type: none"> <li>• Formation and circulation</li> <li>• Functions</li> <li>• Normal volume and composition</li> <li>• Abnormalities:</li> <li>o Oligohydramnios</li> <li>o Polyhydramnios</li> </ul>	<p><b>15. Advances in Reproductive Technologies &amp; Fetal Medicine</b></p> <ul style="list-style-type: none"> <li>• Stem cell research</li> <li>• In-vitro fertilization (IVF)</li> <li>• Genetic engineering and fetal therapy</li> <li>• Prenatal screening advancements (NIPT)</li> </ul>
<p><b>8. Multiple Pregnancy</b></p> <ul style="list-style-type: none"> <li>• Types:</li> <li>o Monozygotic twins</li> <li>o Dizygotic twins <ul style="list-style-type: none"> <li>• Placental variations:</li> </ul> </li> <li>o Monochorionic, dichorionic <ul style="list-style-type: none"> <li>• Complications:</li> </ul> </li> <li>o Twin-to-twin transfusion syndrome (TTTS)</li> </ul>	

## PRACTICAL

<p>➤ <b>Embryological Models &amp; Specimen Study</b></p> <ul style="list-style-type: none"> <li>• Identification of stages:           <ul style="list-style-type: none"> <li>o Zygote, morula, blastocyst</li> <li>• Study of implantation models</li> <li>• Identification of germ layers:               <ul style="list-style-type: none"> <li>o Ectoderm, mesoderm, endoderm</li> <li>• Study of embryonic folding and organogenesis models</li> <li>• Identification of fetal organs in models/specimens</li> </ul> </li> </ul> </li> </ul>	<p>➤ <b>Prenatal Diagnostic Procedures (Observation/Assisting)</b></p> <ul style="list-style-type: none"> <li>• Amniocentesis (indications &amp; steps)</li> <li>• Chorionic Villus Sampling (CVS)</li> <li>• Cordocentesis</li> <li>• Indications, risks, and interpretation</li> </ul>
<p>➤ <b>Placenta &amp; Fetal Membranes Examination</b></p> <ul style="list-style-type: none"> <li>• Gross examination of placenta:           <ul style="list-style-type: none"> <li>o Shape, size, weight</li> <li>o Maternal surface (cotyledons)</li> <li>o Fetal surface (chorionic plate)               <ul style="list-style-type: none"> <li>• Examination of:                   <ul style="list-style-type: none"> <li>o Umbilical cord (length, vessels)</li> <li>o Amniotic membranes                       <ul style="list-style-type: none"> <li>• Identification of abnormalities:</li> </ul> </li> <li>o Placenta previa</li> <li>o Placental infarction</li> <li>o Cord abnormalities (true knot, single umbilical artery)</li> </ul> </li> </ul> </li> </ul> </li> </ul>	<p>➤ <b>Congenital Anomalies Identification</b></p> <ul style="list-style-type: none"> <li>• Identification via models, charts, and USG:           <ul style="list-style-type: none"> <li>o Neural tube defects</li> <li>o Hydrocephalus</li> <li>o Congenital heart defects</li> <li>o Cleft lip/palate               <ul style="list-style-type: none"> <li>• Correlation with embryological development stages</li> </ul> </li> </ul> </li> </ul>
<p>➤ <b>Ultrasound (USG) Practical Training</b></p> <ul style="list-style-type: none"> <li>• Basic principles of obstetric ultrasound</li> <li>• Identification of:           <ul style="list-style-type: none"> <li>o Gestational sac</li> <li>o Yolk sac</li> <li>o Fetal pole</li> <li>o Cardiac activity               <ul style="list-style-type: none"> <li>• Measurement techniques:                   <ul style="list-style-type: none"> <li>o Crown-rump length (CRL)</li> <li>o Biparietal diameter (BPD)</li> <li>o Femur length (FL)</li> <li>o Abdominal circumference (AC)                       <ul style="list-style-type: none"> <li>• Estimation of:                           <ul style="list-style-type: none"> <li>o Gestational age</li> <li>o Fetal weight                               <ul style="list-style-type: none"> <li>• Placenta localization</li> <li>• Amniotic fluid index (AFI) measurement</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul>	<p>➤ <b>Teratology Practical</b></p> <ul style="list-style-type: none"> <li>• Case-based discussion on teratogens:           <ul style="list-style-type: none"> <li>o Drugs</li> <li>o Infections (TORCH)               <ul style="list-style-type: none"> <li>• Identification of risk factors</li> <li>• Counseling simulation for pregnant women</li> </ul> </li> </ul> </li> </ul>
<p>➤ <b>Fetal Growth Monitoring</b></p> <ul style="list-style-type: none"> <li>• Plotting growth charts</li> <li>• Fundal height measurement</li> <li>• Assessment of fetal movements</li> <li>• Identification of:           <ul style="list-style-type: none"> <li>o Intrauterine Growth Restriction (IUGR)</li> <li>o Macrosomia</li> </ul> </li> </ul>	<p>➤ <b>Multiple Pregnancy Assessment</b></p> <ul style="list-style-type: none"> <li>• Ultrasound identification:           <ul style="list-style-type: none"> <li>o Monozygotic vs dizygotic twins               <ul style="list-style-type: none"> <li>• Determination of chorionicity and amnionicity</li> <li>• Recognition of complications:                   <ul style="list-style-type: none"> <li>o Twin-to-twin transfusion syndrome (TTTS)</li> </ul> </li> </ul> </li> </ul> </li> </ul>

<p>➤ <b>Fetal Circulation Demonstration</b></p> <ul style="list-style-type: none"> <li>• Study of fetal circulation models: <ul style="list-style-type: none"> <li>o Ductus venosus</li> <li>o Foramen ovale</li> <li>o Ductus arteriosus <ul style="list-style-type: none"> <li>• Comparison with neonatal circulation</li> </ul> </li> </ul> </li> </ul>	<p>➤ <b>Fetal Well-being Assessment</b></p> <ul style="list-style-type: none"> <li>• Non-Stress Test (NST) demonstration</li> <li>• Biophysical Profile (BPP) interpretation</li> <li>• Doppler ultrasound basics: <ul style="list-style-type: none"> <li>o Umbilical artery flow <ul style="list-style-type: none"> <li>• Fetal movement counting (kick chart)</li> </ul> </li> </ul> </li> </ul>
<p>➤ <b>Amniotic Fluid Assessment</b></p> <ul style="list-style-type: none"> <li>• Clinical assessment techniques</li> <li>• Ultrasound-based AFI measurement</li> <li>• Recognition of: <ul style="list-style-type: none"> <li>o Oligohydramnios</li> <li>o Polyhydramnios</li> </ul> </li> </ul>	<p>➤ <b>Genetics &amp; Karyotyping (Demonstration)</b></p> <ul style="list-style-type: none"> <li>• Basics of karyotyping</li> <li>• Identification of chromosomal abnormalities (charts/images): <ul style="list-style-type: none"> <li>o Down syndrome</li> <li>o Turner syndrome <ul style="list-style-type: none"> <li>• Genetic counseling role-play</li> </ul> </li> </ul> </li> </ul>

## PSYCHOLOGY OF PREGNANCY, LABOUR & PUERPERIUM

### THEORY

<p><b>1. Introduction to Perinatal Psychology</b></p> <ul style="list-style-type: none"> <li>• Definition and scope</li> <li>• Importance in obstetrics and maternal care</li> <li>• Psychological adaptation to motherhood</li> <li>• Role of obstetrician in mental health care</li> <li>• Biopsychosocial model in pregnancy</li> </ul>	<p><b>8. Postpartum (Puerperium) Psychological Changes</b></p> <p><b>A. Normal Changes</b></p> <ul style="list-style-type: none"> <li>• Emotional sensitivity</li> <li>• Adjustment to motherhood</li> <li>• Sleep disturbances</li> </ul> <p><b>B. Postpartum Disorders</b></p> <ul style="list-style-type: none"> <li>• Postpartum blues</li> <li>• Postpartum depression</li> <li>• Postpartum psychosis</li> <li>• Risk factors, clinical features, and management</li> </ul>
<p><b>2. Psychological Changes During Pregnancy</b></p> <p><b>A. Emotional &amp; Behavioral Changes</b></p> <ul style="list-style-type: none"> <li>• Mood swings and emotional lability</li> <li>• Anxiety, fear, and stress</li> <li>• Body image changes</li> <li>• Maternal identity formation</li> </ul> <p><b>B. Trimester-wise Psychological Changes</b></p> <ul style="list-style-type: none"> <li>• <b>First trimester:</b> <ul style="list-style-type: none"> <li>o Ambivalence, fear of miscarriage</li> </ul> </li> <li>• <b>Second trimester:</b> <ul style="list-style-type: none"> <li>o Acceptance, attachment to fetus</li> </ul> </li> <li>• <b>Third trimester:</b> <ul style="list-style-type: none"> <li>o Anxiety about labour, parenthood</li> </ul> </li> </ul>	<p><b>9. Mother-Infant Bonding</b></p> <ul style="list-style-type: none"> <li>• Early bonding process</li> <li>• Skin-to-skin contact importance</li> <li>• Breastfeeding and emotional connection</li> <li>• Impact of separation (NICU, illness)</li> </ul>
<p><b>3. Maternal-Fetal Attachment</b></p> <ul style="list-style-type: none"> <li>• Concept and development</li> </ul>	<p><b>10. Family Dynamics &amp; Social Support</b></p> <ul style="list-style-type: none"> <li>• Role of partner and family</li> </ul>

<ul style="list-style-type: none"> <li>• Factors affecting bonding</li> <li>• Role of fetal movements and ultrasound</li> <li>• Impact on postnatal bonding</li> </ul>	<ul style="list-style-type: none"> <li>• Cultural influences on pregnancy</li> <li>• Domestic violence and its psychological impact</li> <li>• Social determinants of maternal mental health</li> </ul>
<p><b>4. Psychological Aspects of Labour</b></p> <ul style="list-style-type: none"> <li>• Fear of labour pain (tokophobia)</li> <li>• Stress and coping mechanisms</li> <li>• Role of: <ul style="list-style-type: none"> <li>o Support systems (partner, family)</li> <li>o Birth environment <ul style="list-style-type: none"> <li>• Cultural beliefs and practices</li> <li>• Psychological preparation for childbirth:</li> </ul> </li> <li>o Antenatal classes</li> <li>o Birth planning</li> </ul> </li> </ul>	<p><b>11. Communication &amp; Counseling Skills</b></p> <ul style="list-style-type: none"> <li>• Effective communication with pregnant women</li> <li>• Breaking bad news (e.g., fetal anomaly)</li> <li>• Counseling techniques: <ul style="list-style-type: none"> <li>o Antenatal counseling</li> <li>o Postnatal counseling <ul style="list-style-type: none"> <li>• Empathy and patient-centered care</li> </ul> </li> </ul> </li> </ul>
<p><b>5. Pain Perception &amp; Psychological Influence</b></p> <ul style="list-style-type: none"> <li>• Gate control theory of pain</li> <li>• Role of anxiety and fear in pain perception</li> <li>• Non-pharmacological pain relief methods: <ul style="list-style-type: none"> <li>o Breathing techniques</li> <li>o Relaxation therapy</li> <li>o Music therapy</li> <li>o Continuous labor support</li> </ul> </li> </ul>	<p><b>12. Screening &amp; Assessment Tools</b></p> <ul style="list-style-type: none"> <li>• Edinburgh Postnatal Depression Scale (EPDS)</li> <li>• Anxiety screening tools</li> <li>• Risk assessment strategies</li> <li>• Mental status examination in obstetrics</li> </ul>
<p><b>6. Psychological Disorders in Pregnancy</b></p> <ul style="list-style-type: none"> <li>• Antenatal depression</li> <li>• Anxiety disorders</li> <li>• Adjustment disorders</li> <li>• Substance abuse</li> <li>• Risk factors and screening tools</li> <li>• Impact on mother and fetus</li> </ul>	<p><b>13. Management of Psychological Disorders</b></p> <ul style="list-style-type: none"> <li>• Non-pharmacological management: <ul style="list-style-type: none"> <li>o Counseling</li> <li>o Cognitive Behavioral Therapy (CBT) <ul style="list-style-type: none"> <li>• Pharmacological considerations:</li> </ul> </li> <li>o Safety of antidepressants in pregnancy <ul style="list-style-type: none"> <li>• Multidisciplinary approach: <ul style="list-style-type: none"> <li>o Psychiatrist</li> <li>o Psychologist</li> <li>o Social worker</li> </ul> </li> </ul> </li> </ul> </li> </ul>
<p><b>7. Psychological Aspects of High-Risk Pregnancy</b></p> <ul style="list-style-type: none"> <li>• Emotional impact of: <ul style="list-style-type: none"> <li>o Recurrent pregnancy loss</li> <li>o Infertility</li> <li>o Fetal anomalies</li> <li>o Chronic maternal illness <ul style="list-style-type: none"> <li>• Coping strategies and counseling</li> <li>• Ethical considerations</li> </ul> </li> </ul> </li> </ul>	<p><b>14. Special Situations</b></p> <ul style="list-style-type: none"> <li>• Teenage pregnancy</li> <li>• Unwanted pregnancy</li> <li>• Pregnancy after assisted reproductive techniques (ART)</li> <li>• Pregnancy loss and grief counseling</li> <li>• Stillbirth and bereavement care</li> </ul>

**PRACTICAL**

<p>➤ <b>Psychological Assessment in Pregnancy</b></p> <ul style="list-style-type: none"> <li>• Conducting antenatal psychological interviews</li> <li>• Use of screening tools:</li> </ul>	<p>➤ <b>Postpartum (Puerperium) Psychological Care</b></p> <ul style="list-style-type: none"> <li>• Assessment of maternal mental health after delivery</li> <li>• Identifying:</li> </ul>
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<ul style="list-style-type: none"> <li>o Edinburgh Postnatal Depression Scale (EPDS)</li> <li>o General Anxiety Assessment tools <ul style="list-style-type: none"> <li>• Identifying:</li> </ul> </li> <li>o Anxiety disorders</li> <li>o Depression</li> <li>o Fear of childbirth (Tokophobia) <ul style="list-style-type: none"> <li>• Risk assessment for high-risk pregnancies (psychological factors)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>o Baby blues</li> <li>o Postpartum depression</li> <li>o Postpartum psychosis <ul style="list-style-type: none"> <li>• Counseling for:</li> </ul> </li> <li>o Breastfeeding support</li> <li>o Mother–infant bonding <ul style="list-style-type: none"> <li>• Family counseling and support</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>➤ <b>Counseling Skills in Obstetrics</b> <ul style="list-style-type: none"> <li>• Building rapport with pregnant women and families</li> <li>• Effective communication techniques:</li> </ul> </li> <li>o Verbal and non-verbal communication</li> <li>o Empathy and active listening <ul style="list-style-type: none"> <li>• Providing:</li> </ul> </li> <li>o Antenatal counseling</li> <li>o Nutritional &amp; lifestyle counseling</li> <li>o Birth preparedness counseling <ul style="list-style-type: none"> <li>• Handling sensitive topics:</li> </ul> </li> <li>o Unplanned pregnancy</li> <li>o Teenage pregnancy</li> <li>o Pregnancy loss</li> </ul>	<ul style="list-style-type: none"> <li>➤ <b>Handling Special Psychological Situations</b> <ul style="list-style-type: none"> <li>• Counseling in:</li> </ul> </li> <li>o High-risk pregnancy</li> <li>o Stillbirth and neonatal death</li> <li>o Congenital anomalies <ul style="list-style-type: none"> <li>• Managing domestic violence cases</li> <li>• Addressing substance abuse in pregnancy</li> <li>• Ethical and legal considerations</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>➤ <b>Psychological Care During Pregnancy</b> <ul style="list-style-type: none"> <li>• Supporting emotional changes in each trimester</li> <li>• Managing:</li> </ul> </li> <li>o Mood swings</li> <li>o Anxiety and stress <ul style="list-style-type: none"> <li>• Teaching relaxation techniques:</li> </ul> </li> <li>o Breathing exercises</li> <li>o Meditation <ul style="list-style-type: none"> <li>• Conducting group education sessions for pregnant women</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>➤ <b>Communication with Family &amp; Multidisciplinary Team</b> <ul style="list-style-type: none"> <li>• Interaction with:</li> </ul> </li> <li>o Obstetricians</li> <li>o Nurses</li> <li>o Psychologists <ul style="list-style-type: none"> <li>• Family counseling techniques</li> <li>• Breaking bad news sensitively</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>➤ <b>Psychological Support During Labour</b> <ul style="list-style-type: none"> <li>• Labour room communication skills</li> <li>• Providing emotional reassurance during labour</li> <li>• Pain perception and psychological support:</li> </ul> </li> <li>o Non-pharmacological pain relief methods <ul style="list-style-type: none"> <li>• Supporting:</li> </ul> </li> <li>o Fear and panic management</li> <li>o Partner involvement during labour <ul style="list-style-type: none"> <li>• Crisis intervention in emergency labour situations</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>➤ <b>Health Education &amp; Awareness</b> <ul style="list-style-type: none"> <li>• Conducting:</li> </ul> </li> <li>o Antenatal classes</li> <li>o Parenting education sessions <ul style="list-style-type: none"> <li>• Awareness on:</li> </ul> </li> <li>o Mental health in pregnancy</li> <li>o Importance of emotional well-being <ul style="list-style-type: none"> <li>• Developing IEC (Information, Education, Communication) materials</li> </ul> </li> </ul>

## ANTENATAL & POSTNATAL CARE

### THEORY

**1. Introduction to Antenatal Care**

**7. Minor Disorders of Pregnancy**

<ul style="list-style-type: none"> <li>• Definition and objectives of antenatal care</li> <li>• Importance of antenatal care in maternal &amp; fetal outcomes</li> <li>• Components of antenatal care</li> <li>• Schedule of antenatal visits (WHO recommendations)</li> <li>• Preconception care and counseling</li> </ul>	<ul style="list-style-type: none"> <li>• Nausea and vomiting (morning sickness)</li> <li>• Heartburn</li> <li>• Constipation</li> <li>• Backache</li> <li>• Leg cramps</li> <li>• Management of minor ailments</li> </ul>
<p><b>2. Physiological Changes in Pregnancy</b></p> <ul style="list-style-type: none"> <li>• Changes in: <ul style="list-style-type: none"> <li>o Reproductive system</li> <li>o Cardiovascular system</li> <li>o Respiratory system</li> <li>o Gastrointestinal system</li> <li>o Renal system</li> <li>o Endocrine system</li> <li>o Musculoskeletal system</li> </ul> </li> <li>• Hormonal changes and their effects</li> </ul>	<p><b>8. High-Risk Pregnancy</b></p> <ul style="list-style-type: none"> <li>• Definition and classification</li> <li>• Risk factors: <ul style="list-style-type: none"> <li>o Maternal age</li> <li>o Previous obstetric history <ul style="list-style-type: none"> <li>• Common high-risk conditions:</li> </ul> </li> <li>o Gestational Diabetes Mellitus</li> <li>o Preeclampsia</li> <li>o Anemia <ul style="list-style-type: none"> <li>• Monitoring and management principles</li> </ul> </li> </ul> </li> </ul>
<p><b>3. Diagnosis of Pregnancy</b></p> <ul style="list-style-type: none"> <li>• Signs and symptoms: <ul style="list-style-type: none"> <li>o Presumptive, probable, and positive signs <ul style="list-style-type: none"> <li>• Pregnancy tests: <ul style="list-style-type: none"> <li>o Urine pregnancy test</li> <li>o Serum beta-hCG <ul style="list-style-type: none"> <li>• Role of ultrasound in early pregnancy</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul>	<p><b>9. Antenatal Complications</b></p> <ul style="list-style-type: none"> <li>• Bleeding in pregnancy: <ul style="list-style-type: none"> <li>o Placenta Previa</li> <li>o Placental Abruption <ul style="list-style-type: none"> <li>• Multiple pregnancy</li> <li>• Intrauterine growth restriction (IUGR)</li> <li>• Preterm labor</li> </ul> </li> </ul> </li> </ul>
<p><b>4. Antenatal Assessment</b></p> <ul style="list-style-type: none"> <li>• History taking: <ul style="list-style-type: none"> <li>o Obstetric history (GTPAL)</li> <li>o Medical &amp; surgical history <ul style="list-style-type: none"> <li>• General physical examination</li> <li>• Obstetric examination: <ul style="list-style-type: none"> <li>o Fundal height measurement</li> <li>o Fetal lie, presentation, position</li> <li>o Fetal heart rate monitoring <ul style="list-style-type: none"> <li>• Risk assessment and classification</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul>	<p><b>10. Immunization in Pregnancy</b></p> <ul style="list-style-type: none"> <li>• Importance of immunization</li> <li>• Vaccines: <ul style="list-style-type: none"> <li>o Tetanus toxoid (TT)</li> <li>o Tdap <ul style="list-style-type: none"> <li>• National immunization guidelines</li> </ul> </li> </ul> </li> </ul>
<p><b>5. Routine Antenatal Investigations</b></p> <ul style="list-style-type: none"> <li>• Blood tests: <ul style="list-style-type: none"> <li>o Hemoglobin, blood group, Rh typing</li> <li>o Blood sugar</li> <li>o Thyroid function tests <ul style="list-style-type: none"> <li>• Urine examination</li> <li>• Screening for infections: <ul style="list-style-type: none"> <li>o HIV</li> <li>o Hepatitis B</li> <li>o Syphilis <ul style="list-style-type: none"> <li>• Ultrasound scans:</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul>	<p><b>11. Drugs in Pregnancy</b></p> <ul style="list-style-type: none"> <li>• Principles of drug use in pregnancy</li> <li>• Teratogenic drugs</li> <li>• Safe medications</li> <li>• FDA drug categories</li> </ul>

<ul style="list-style-type: none"> <li>o Dating scan</li> <li>o Anomaly scan</li> <li>o Growth scan</li> </ul>	
<p><b>6. Nutrition in Pregnancy</b></p> <ul style="list-style-type: none"> <li>• Nutritional requirements:</li> <li>o Macronutrients and micronutrients <ul style="list-style-type: none"> <li>• Iron, calcium, folic acid supplementation</li> <li>• Balanced diet planning</li> <li>• Dietary modifications in:</li> </ul> </li> <li>o Anemia</li> <li>o Diabetes <ul style="list-style-type: none"> <li>• Weight gain recommendations</li> </ul> </li> </ul>	<p><b>12. Health Education &amp; Counseling</b></p> <ul style="list-style-type: none"> <li>• Birth preparedness and complication readiness</li> <li>• Lifestyle advice:</li> <li>o Exercise</li> <li>o Rest and sleep <ul style="list-style-type: none"> <li>• Avoidance of harmful habits:</li> </ul> </li> <li>o Smoking</li> <li>o Alcohol <ul style="list-style-type: none"> <li>• Psychological support</li> </ul> </li> </ul>

### POSTNATAL CARE (PUERPERIUM)

<p><b>13. Introduction to Puerperium</b></p> <ul style="list-style-type: none"> <li>• Definition and duration</li> <li>• Physiological changes during puerperium</li> <li>• Stages of puerperium</li> </ul>	<p><b>18. Care of the Newborn</b></p> <ul style="list-style-type: none"> <li>• Immediate newborn care</li> <li>• APGAR scoring</li> <li>• Thermal protection</li> <li>• Early initiation of breastfeeding</li> </ul>
<p><b>14. Postnatal Assessment</b></p> <ul style="list-style-type: none"> <li>• Maternal assessment:</li> <li>o Vital signs</li> <li>o Uterine involution</li> <li>o Lochia <ul style="list-style-type: none"> <li>• Perineal care</li> <li>• Breast examination</li> </ul> </li> </ul>	<p><b>19. Family Planning &amp; Contraception</b></p> <ul style="list-style-type: none"> <li>• Importance of spacing</li> <li>• Methods:</li> <li>o Natural methods</li> <li>o Barrier methods</li> <li>o Hormonal methods</li> <li>o Intrauterine devices (IUCD) <ul style="list-style-type: none"> <li>• Counseling for contraception</li> </ul> </li> </ul>
<p><b>15. Postnatal Care of Mother</b></p> <ul style="list-style-type: none"> <li>• Hygiene and personal care</li> <li>• Nutrition in lactation</li> <li>• Postnatal exercises</li> <li>• Family planning counseling</li> </ul>	<p><b>20. Follow-up &amp; Postnatal Visits</b></p> <ul style="list-style-type: none"> <li>• Schedule of postnatal visits</li> <li>• Monitoring maternal recovery</li> <li>• Infant growth and development</li> <li>• Warning signs requiring medical attention</li> </ul>
<p><b>16. Breastfeeding</b></p> <ul style="list-style-type: none"> <li>• Physiology of lactation</li> <li>• Benefits of breastfeeding</li> <li>• Techniques of breastfeeding</li> <li>• Exclusive breastfeeding</li> <li>• Common problems:</li> <li>• Engorgement &amp; Mastitis</li> </ul>	<p><b>21. Community &amp; Public Health Aspects</b></p> <ul style="list-style-type: none"> <li>• Maternal health programs (India)</li> <li>• Role of ASHA/ANM workers</li> <li>• Institutional delivery promotion</li> <li>• Maternal mortality and morbidity prevention</li> </ul>
<p><b>17. Postnatal Complications</b></p> <ul style="list-style-type: none"> <li>• Postpartum hemorrhage (PPH)</li> <li>• Puerperal sepsis</li> <li>• Postpartum Depression</li> <li>• Postpartum Psychosis</li> </ul>	

## PRACTICAL

<p>➤ <b>Antenatal History Taking</b></p> <ul style="list-style-type: none"> <li>• Recording detailed obstetric history (GTPAL)</li> <li>• Menstrual history, LMP &amp; EDD calculation</li> <li>• Past medical and surgical history</li> <li>• Family and personal history</li> <li>• Identification of high-risk factors</li> </ul>	<p>➤ <b>Antenatal Investigations (Hands-on/Observation)</b></p> <ul style="list-style-type: none"> <li>• Blood sample collection (observation/assistance)</li> <li>• Urine testing (albumin, sugar)</li> <li>• Interpretation of reports: <ul style="list-style-type: none"> <li>o Hemoglobin</li> <li>o Blood group &amp; Rh typing</li> <li>o Blood sugar <ul style="list-style-type: none"> <li>• Screening tests for: <ul style="list-style-type: none"> <li>o HIV</li> <li>o Hepatitis B</li> <li>o Syphilis <ul style="list-style-type: none"> <li>• Assisting in ultrasound procedures</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul>
<p>➤ <b>General Physical Examination</b></p> <ul style="list-style-type: none"> <li>• Measurement of: <ul style="list-style-type: none"> <li>o Height, weight, BMI</li> <li>o Blood pressure, Pulse, temperature <ul style="list-style-type: none"> <li>• Examination for: <ul style="list-style-type: none"> <li>o Pallor, edema, jaundice <ul style="list-style-type: none"> <li>• Systemic examination (CVS, RS, CNS)</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul>	<p>➤ <b>Antenatal Care Procedures</b></p> <ul style="list-style-type: none"> <li>• Iron and folic acid supplementation</li> <li>• Calcium supplementation</li> <li>• Administration of tetanus toxoid (TT) injection (under supervision)</li> <li>• Monitoring fetal growth</li> </ul>
<p>➤ <b>Obstetric Examination</b></p> <p>Abdominal examination:</p> <ul style="list-style-type: none"> <li>o Fundal height measurement</li> <li>o Abdominal girth <ul style="list-style-type: none"> <li>• Leopold's Maneuvers</li> <li>• Assessment of:</li> </ul> </li> <li>o Fetal lie, presentation, position <ul style="list-style-type: none"> <li>• Auscultation of fetal heart rate (FHR)</li> </ul> </li> </ul>	<p>➤ <b>Identification &amp; Management of High-Risk Pregnancy</b></p> <ul style="list-style-type: none"> <li>• Screening for: <ul style="list-style-type: none"> <li>o Gestational Diabetes Mellitus</li> <li>o Preeclampsia</li> <li>o Anemia <ul style="list-style-type: none"> <li>• Referral protocols</li> <li>• Monitoring high-risk cases</li> </ul> </li> </ul> </li> </ul>
<p>➤ <b>Calculation Skills</b></p> <ul style="list-style-type: none"> <li>• Expected Date of Delivery (EDD) using Naegele's rule</li> <li>• Gestational age calculation</li> <li>• Interpretation of weight gain</li> </ul>	<p>➤ <b>Health Education &amp; Counseling (Antenatal)</b></p> <ul style="list-style-type: none"> <li>• Diet and nutrition counseling</li> <li>• Birth preparedness and complication readiness</li> <li>• Personal hygiene and lifestyle advice</li> <li>• Counseling on danger signs in pregnancy</li> </ul>

## POSTNATAL CARE PRACTICALS

<p>➤ <b>Postnatal Assessment of Mother</b></p> <ul style="list-style-type: none"> <li>• Monitoring vital signs</li> <li>• Uterine involution assessment</li> <li>• Observation of lochia</li> <li>• Perineal inspection and care</li> <li>• Breast examination</li> </ul>	<p>➤ <b>Identification of Postnatal Complications</b></p> <ul style="list-style-type: none"> <li>• Recognition of: <ul style="list-style-type: none"> <li>o Postpartum hemorrhage (PPH)</li> <li>o Puerperal sepsis</li> <li>o Postpartum Depression <ul style="list-style-type: none"> <li>• Immediate reporting and referral</li> </ul> </li> </ul> </li> </ul>
<p>➤ <b>Postnatal Care Procedures</b></p> <ul style="list-style-type: none"> <li>• Perineal care (episiotomy care)</li> </ul>	<p>➤ <b>Newborn Care</b></p> <ul style="list-style-type: none"> <li>• Immediate care of newborn</li> </ul>

<ul style="list-style-type: none"> <li>• Assisting in early ambulation</li> <li>• Postnatal exercises demonstration</li> <li>• Maintaining hygiene</li> </ul>	<ul style="list-style-type: none"> <li>• APGAR scoring (observation)</li> <li>• Cord care</li> <li>• Thermal protection</li> <li>• Assisting in immunization</li> </ul>
<p>➤ <b>Breastfeeding Support</b></p> <ul style="list-style-type: none"> <li>• Assisting mother in initiation of breastfeeding</li> <li>• Demonstrating correct positioning and attachment</li> <li>• Managing common problems:</li> </ul> <ul style="list-style-type: none"> <li>o Engorgement</li> <li>o Sore nipples</li> </ul> <ul style="list-style-type: none"> <li>• Promoting exclusive breastfeeding</li> </ul>	<p>➤ <b>Family Planning Counseling</b></p> <ul style="list-style-type: none"> <li>• Counseling on:</li> </ul> <ul style="list-style-type: none"> <li>o Spacing methods</li> <li>o Barrier methods</li> <li>o IUCD</li> </ul> <ul style="list-style-type: none"> <li>• Demonstration (models where available)</li> </ul>

**BASIC GYNECOLOGICAL DISORDER**

**THEORY**

<p><b>1. Introduction to Gynecology</b></p> <ul style="list-style-type: none"> <li>• Definition and scope of gynecology</li> <li>• Anatomy of female reproductive system:</li> </ul> <ul style="list-style-type: none"> <li>o External genitalia</li> <li>o Internal organs (uterus, ovaries, fallopian tubes)</li> </ul> <ul style="list-style-type: none"> <li>• Physiology of menstrual cycle</li> <li>• Hormonal regulation</li> </ul>	<p><b>12. Pelvic Organ Prolapse</b></p> <ul style="list-style-type: none"> <li>• Types:</li> </ul> <ul style="list-style-type: none"> <li>o Uterine prolapse</li> <li>o Cystocele</li> <li>o Rectocele</li> </ul> <ul style="list-style-type: none"> <li>• Risk factors</li> <li>• Clinical features</li> <li>• Management (conservative &amp; surgical)</li> </ul>
<p><b>2. Menstrual Disorders</b></p> <ul style="list-style-type: none"> <li>• Normal menstrual cycle</li> <li>• Types of menstrual disorders:</li> </ul> <ul style="list-style-type: none"> <li>o Amenorrhea (primary &amp; secondary)</li> <li>o Dysmenorrhea</li> <li>o Menorrhagia</li> <li>o Oligomenorrhea</li> <li>o Polymenorrhea</li> </ul> <ul style="list-style-type: none"> <li>• Causes, diagnosis, and management</li> </ul>	<p><b>13. Menopause &amp; Postmenopausal Disorders</b></p> <ul style="list-style-type: none"> <li>• Physiology of menopause</li> <li>• Symptoms:</li> </ul> <ul style="list-style-type: none"> <li>o Hot flushes</li> <li>o Osteoporosis</li> </ul> <ul style="list-style-type: none"> <li>• Postmenopausal bleeding</li> <li>• Hormone replacement therapy (HRT)</li> </ul>
<p><b>3. Puberty &amp; Adolescent Gynecology</b></p> <ul style="list-style-type: none"> <li>• Pubertal development</li> <li>• Disorders:</li> </ul> <ul style="list-style-type: none"> <li>o Delayed puberty</li> <li>o Precocious puberty</li> </ul> <ul style="list-style-type: none"> <li>• Adolescent menstrual problems</li> <li>• Counseling and management</li> </ul>	<p><b>14. Benign &amp; Malignant Gynecological Tumors</b></p> <ul style="list-style-type: none"> <li>• Benign tumors:</li> </ul> <ul style="list-style-type: none"> <li>o Fibroids</li> <li>o Ovarian cysts</li> </ul> <ul style="list-style-type: none"> <li>• Malignant tumors:</li> </ul> <ul style="list-style-type: none"> <li>o Cervical cancer</li> <li>o Endometrial cancer</li> <li>o Ovarian cancer</li> </ul> <ul style="list-style-type: none"> <li>• Screening, diagnosis, and basic management</li> </ul>
<p><b>4. Vaginal &amp; Cervical Disorders</b></p> <ul style="list-style-type: none"> <li>• Vaginitis:</li> </ul> <ul style="list-style-type: none"> <li>o Bacterial vaginosis</li> <li>o Fungal infections</li> </ul>	<p><b>15. Urinary Disorders in Gynecology</b></p> <ul style="list-style-type: none"> <li>• Urinary incontinence:</li> </ul> <ul style="list-style-type: none"> <li>o Stress incontinence</li> <li>o Urge incontinence</li> </ul>

<ul style="list-style-type: none"> <li>• Cervicitis</li> <li>• Abnormal vaginal discharge:</li> </ul> <ul style="list-style-type: none"> <li>o Causes and evaluation <ul style="list-style-type: none"> <li>• Screening for cervical cancer:</li> </ul> </li> <li>o Pap smear</li> <li>o HPV testing</li> </ul>	<ul style="list-style-type: none"> <li>• Urinary tract infections (UTIs)</li> <li>• Diagnosis and management</li> </ul>
<p><b>5. Pelvic Inflammatory Disease (PID)</b></p> <ul style="list-style-type: none"> <li>• Definition and causes</li> <li>• Pathophysiology</li> <li>• Clinical features</li> <li>• Diagnosis and complications</li> <li>• Management and prevention</li> </ul>	<p><b>16. Breast Disorders (Basic Overview)</b></p> <ul style="list-style-type: none"> <li>• Mastitis</li> <li>• Breast abscess</li> <li>• Benign breast diseases</li> <li>• Breast cancer awareness</li> </ul>
<p><b>6. Uterine Disorders</b></p> <ul style="list-style-type: none"> <li>• Fibroid uterus (leiomyoma)</li> <li>• Adenomyosis</li> <li>• Endometrial hyperplasia</li> <li>• Abnormal uterine bleeding (AUB):</li> </ul> <ul style="list-style-type: none"> <li>o Classification (PALM-COEIN) <ul style="list-style-type: none"> <li>• Diagnosis and treatment</li> </ul> </li> </ul>	<p><b>17. Gynecological Emergencies</b></p> <ul style="list-style-type: none"> <li>• Ectopic pregnancy</li> <li>• Ovarian torsion</li> <li>• Acute pelvic pain</li> <li>• Immediate management principles</li> </ul>
<p><b>7. Ovarian Disorders</b></p> <ul style="list-style-type: none"> <li>• Functional ovarian cysts</li> <li>• Polycystic ovarian disease:</li> </ul> <ul style="list-style-type: none"> <li>o Polycystic Ovary Syndrome <ul style="list-style-type: none"> <li>• Ovarian tumors (benign &amp; malignant)</li> <li>• Hormonal disturbances</li> </ul> </li> </ul>	<p><b>18. Diagnostic Procedures in Gynecology</b></p> <ul style="list-style-type: none"> <li>• Pelvic examination</li> <li>• Pap smear</li> <li>• Ultrasound</li> <li>• Hysteroscopy</li> <li>• Laparoscopy</li> </ul>
<p><b>8. Endometriosis</b></p> <ul style="list-style-type: none"> <li>• Definition and pathogenesis</li> <li>• Clinical features (pain, infertility)</li> <li>• Diagnosis (laparoscopy)</li> <li>• Management options</li> </ul>	<p><b>19. Drugs Used in Gynecology</b></p> <ul style="list-style-type: none"> <li>• Hormonal therapy:</li> </ul> <ul style="list-style-type: none"> <li>o Estrogen, Progesterone <ul style="list-style-type: none"> <li>• Antibiotics</li> <li>• Analgesics</li> <li>• Ovulation induction drugs</li> </ul> </li> </ul>
<p><b>9. Infertility</b></p> <ul style="list-style-type: none"> <li>• Definition (primary &amp; secondary infertility)</li> <li>• Causes:</li> </ul> <ul style="list-style-type: none"> <li>o Female factors</li> <li>o Male factors <ul style="list-style-type: none"> <li>• Investigations:</li> </ul> </li> <li>o Ovulation assessment</li> <li>o Tubal patency tests <ul style="list-style-type: none"> <li>• Basic management principles</li> </ul> </li> </ul>	<p><b>20. Health Education &amp; Counseling</b></p> <ul style="list-style-type: none"> <li>• Menstrual hygiene</li> <li>• Sexual health education</li> <li>• Counseling for infertility</li> <li>• Lifestyle modification</li> </ul>
<p><b>10. Contraception</b></p> <ul style="list-style-type: none"> <li>• Need and importance</li> <li>• Methods:</li> </ul> <ul style="list-style-type: none"> <li>o Natural methods</li> </ul>	<p><b>21. National Programs &amp; Public Health</b></p> <ul style="list-style-type: none"> <li>• Reproductive health programs (India)</li> <li>• Family planning initiatives</li> <li>• Screening programs for cancer</li> </ul>

<ul style="list-style-type: none"> <li>o Barrier methods</li> <li>o Hormonal methods</li> <li>o Intrauterine devices (IUCD)</li> <li>o Permanent methods (sterilization) <ul style="list-style-type: none"> <li>• Advantages, disadvantages, and complications</li> </ul> </li> </ul>	
<p><b>11. Sexually Transmitted Infections (STIs)</b></p> <ul style="list-style-type: none"> <li>• Common STIs:</li> <li>o HIV</li> <li>o Syphilis</li> <li>o Gonorrhoea <ul style="list-style-type: none"> <li>• Clinical features and diagnosis</li> <li>• Treatment and prevention</li> </ul> </li> </ul>	<p><b>22. Ethical &amp; Legal Aspects</b></p> <ul style="list-style-type: none"> <li>• Consent in gynecological procedures</li> <li>• Medical termination of pregnancy (MTP Act)</li> <li>• Confidentiality and patient rights</li> </ul>

## PRACTICAL

<p>➤ <b>Gynecological History Taking</b></p> <ul style="list-style-type: none"> <li>• Recording detailed patient history:</li> <li>o Menstrual history (cycle, duration, flow)</li> <li>o Obstetric history (GTPAL)</li> <li>o Sexual history (when appropriate)</li> <li>o Contraceptive history <ul style="list-style-type: none"> <li>• Identification of symptoms:</li> </ul> </li> <li>o Abnormal bleeding</li> <li>o Vaginal discharge</li> <li>o Pelvic pain <ul style="list-style-type: none"> <li>• Screening for high-risk conditions</li> </ul> </li> </ul>	<p>➤ <b>Infertility Workup (Basic Exposure)</b></p> <ul style="list-style-type: none"> <li>• History taking for infertility</li> <li>• Assisting in investigations:</li> <li>o Ovulation tracking</li> <li>o Hormonal tests <ul style="list-style-type: none"> <li>• Counseling couples regarding basic evaluation</li> </ul> </li> </ul>
<p>➤ <b>General Physical Examination</b></p> <ul style="list-style-type: none"> <li>• Assessment of:</li> <li>o Vital signs (BP, pulse, temperature)</li> <li>o BMI and nutritional status</li> <li>• Examination for:</li> <li>o Pallor, edema</li> <li>o Signs of hormonal imbalance (hirsutism, acne) <ul style="list-style-type: none"> <li>• Systemic examination</li> </ul> </li> </ul>	<p>➤ <b>Contraceptive Methods (Demonstration &amp; Counseling)</b></p> <ul style="list-style-type: none"> <li>• Demonstration of:</li> <li>o Barrier methods (condoms)</li> <li>o IUCD insertion (model/demo)</li> <li>• Counseling on:</li> <li>o Hormonal contraceptives</li> <li>o Emergency contraception</li> </ul>
<p>➤ <b>Gynecological Examination</b></p> <ul style="list-style-type: none"> <li>• External genital examination</li> <li>• Speculum examination:</li> <li>o Visualization of cervix</li> <li>o Identification of lesions/discharge <ul style="list-style-type: none"> <li>• Bimanual pelvic examination:</li> </ul> </li> <li>o Uterine size, position, mobility</li> <li>o Adnexal masses <ul style="list-style-type: none"> <li>• Maintaining privacy, consent, and asepsis</li> </ul> </li> </ul>	<p>➤ <b>Screening for Gynecological Cancers</b></p> <ul style="list-style-type: none"> <li>• Pap smear procedure (observation/assistance)</li> <li>• Awareness of:</li> <li>o Cervical cancer</li> <li>o Breast cancer <ul style="list-style-type: none"> <li>• Patient education on early detection</li> </ul> </li> </ul>
<p>➤ <b>Diagnostic Procedures</b></p>	<p>➤ <b>Management of Pelvic Organ Prolapse</b></p>

<ul style="list-style-type: none"> <li>• Assisting/observing: <ul style="list-style-type: none"> <li>o Pap smear collection</li> <li>o High vaginal swab collection <ul style="list-style-type: none"> <li>• Preparation and handling of specimens</li> <li>• Assisting in imaging:</li> </ul> </li> </ul> </li> <li>o Pelvic ultrasound <ul style="list-style-type: none"> <li>• Observation of:</li> </ul> </li> <li>o Hysteroscopy</li> <li>o Laparoscopy</li> </ul>	<ul style="list-style-type: none"> <li>• Identification of: <ul style="list-style-type: none"> <li>o Uterine prolapse</li> <li>o Cystocele/rectocele <ul style="list-style-type: none"> <li>• Demonstration of pessary use (if available)</li> <li>• Referral for surgical management</li> </ul> </li> </ul> </li> </ul>
<p>➤ <b>Assessment of Menstrual Disorders</b></p> <ul style="list-style-type: none"> <li>• Evaluation of: <ul style="list-style-type: none"> <li>o Amenorrhea</li> <li>o Dysmenorrhea</li> <li>o Menorrhagia <ul style="list-style-type: none"> <li>• Hormonal profile interpretation</li> <li>• Charting menstrual patterns</li> </ul> </li> </ul> </li> </ul>	<p>➤ <b>Breast Examination</b></p> <ul style="list-style-type: none"> <li>• Clinical breast examination techniques</li> <li>• Identification of: <ul style="list-style-type: none"> <li>o Lump</li> <li>o Infection (mastitis) <ul style="list-style-type: none"> <li>• Teaching self-breast examination</li> </ul> </li> </ul> </li> </ul>
<p>➤ <b>Management of Vaginal Discharge &amp; Infections</b></p> <ul style="list-style-type: none"> <li>• Identification of abnormal discharge</li> <li>• Collection of samples for laboratory testing</li> <li>• Basic management principles of infections</li> <li>• Counseling on hygiene and prevention</li> </ul>	<p>➤ <b>Gynecological Emergencies (Observation)</b></p> <ul style="list-style-type: none"> <li>• Recognition of: <ul style="list-style-type: none"> <li>o Ectopic pregnancy</li> <li>o Acute pelvic pain <ul style="list-style-type: none"> <li>• Immediate referral and basic emergency care</li> </ul> </li> </ul> </li> </ul>
<p>➤ <b>Screening for Sexually Transmitted Infections (STIs)</b></p> <ul style="list-style-type: none"> <li>• Identification of symptoms of: <ul style="list-style-type: none"> <li>o HIV</li> <li>o Syphilis <ul style="list-style-type: none"> <li>• Counseling for STI testing</li> <li>• Referral protocols</li> </ul> </li> </ul> </li> </ul>	<p>➤ <b>Drug Administration &amp; Management</b></p> <ul style="list-style-type: none"> <li>• Understanding use of: <ul style="list-style-type: none"> <li>o Hormonal therapy</li> <li>o Antibiotics <ul style="list-style-type: none"> <li>• Assisting in medication administration</li> <li>• Monitoring side effects</li> </ul> </li> </ul> </li> </ul>
<p>➤ <b>Evaluation of Common Gynecological Disorders</b></p> <ul style="list-style-type: none"> <li>• Identification and basic assessment of: <ul style="list-style-type: none"> <li>o Polycystic Ovary Syndrome</li> <li>o Fibroids</li> <li>o Ovarian cysts <ul style="list-style-type: none"> <li>• Interpretation of ultrasound findings (basic level)</li> </ul> </li> </ul> </li> </ul>	