PACIFIC MEDICAL UNIVERSITY, UDAIPUR

Ph.D. Entrance Syllabus – Obstetrics & Gynaecology

Ph.D. Entrance Syllabus – Obstetrics & Gynaecology (OBGYN)

1. Basic Sciences Related to OBGYN

- **Anatomy of female genital tract**
    - Uterus, ovaries, fallopian tubes, cervix, vagina, pelvic floor
- **Embryology & fetal development**
    - Gametogenesis, implantation, placentation
- **Physiology**
    - Menstrual cycle
    - Pregnancy physiology
    - Lactation
- **Endocrinology**
    - Hormonal regulation of reproduction
    - HPO axis
- **Pathology**
    - Cellular changes in cervical and endometrial pathology
- **Genetics**
    - Congenital anomalies, chromosomal disorders

2. Obstetrics

A. Antenatal Care

- Antenatal assessment & risk stratification
- Routine antenatal investigations
- High-risk pregnancy management
- Maternal nutrition & supplements
- Screening for anomalies

B. Pregnancy Complications

- Hypertensive disorders of pregnancy (PIH, preeclampsia, eclampsia)
- Gestational diabetes mellitus
- Anemia in pregnancy
- Hyperemesis gravidarum
- Preterm labor & PROM
- Intrauterine growth restriction (IUGR)
- Multiple pregnancy
- Obstetric cholestasis

C. Labor & Delivery

- Stages of labor & monitoring
- Normal delivery
- Induction & augmentation of labor
- Instrumental delivery
- Breech delivery
- Shoulder dystocia
- Postpartum hemorrhage (PPH)

D. Obstetric Emergencies

- Eclampsia & severe preeclampsia
- Obstetric hemorrhage
- Uterine rupture
- Cord prolapse
- Amniotic fluid embolism
- Sepsis in pregnancy

E. Fetal Medicine & Perinatology

- Fetal monitoring (CTG, NST, biophysical profile)
- Fetal growth assessment
- Management of fetal distress
- Preterm birth care

F. Maternal & Child Health

- Maternal mortality & morbidity
- Neonatal resuscitation basics
- Newborn care

3. Gynaecology

A. Menstrual Disorders

- Dysmenorrhea
- Menorrhagia
- Amenorrhea (primary & secondary)
- PCOS

B. Gynecological Infections

- PID
- Vaginitis (bacterial, fungal, trichomoniasis)
- STIs (chlamydia, gonorrhea, syphilis)
- HIV in pregnancy

C. Contraception & Family Planning

- Barrier methods
- Hormonal methods
- IUCD
- Sterilization
- Emergency contraception

D. Infertility

- Causes & evaluation
- Ovulation induction
- Assisted reproductive techniques (basic)
- Male factor infertility

E. Gynecologic Oncology

- Cervical cancer
- Endometrial cancer
- Ovarian cancer

- Vulvar & vaginal cancers
- Screening & prevention (Pap smear, HPV vaccination)

F. Urogynecology & Pelvic Floor Disorders

- Stress urinary incontinence
- Prolapse
- Pelvic floor rehabilitation

4. Investigations & Imaging

- Ultrasound in pregnancy & gynecology
- Hysterosalpingography
- Doppler studies
- CT/MRI in gynecologic malignancies
- Laboratory tests: hormones, tumor markers

5. Pharmacology & Therapeutics

- Oxytocics and tocolytics
- Antihypertensives in pregnancy
- Antibiotics & safe drugs in pregnancy
- Hormonal therapies
- Emergency drugs in obstetric emergencies

6. Surgical Procedures

- Caesarean section
- Hysterectomy (abdominal, vaginal)
- Myomectomy
- Tubal ligation
- D&C / endometrial sampling
- Laparoscopy basics
- Cervical procedures (LEEP, cone biopsy)

7. Research Methodology & Biostatistics

- Research design
- Study types
- Sample size calculation
- Protocol writing

- Ethics in research
- ICMR guidelines
- Evidence-based medicine
- Data analysis basics

8. Public Health & National Programs

- Maternal & child health programs
- Janani Suraksha Yojana (JSY)
- Janani Shishu Suraksha Karyakram (JSSK)
- National Health Mission (NHM)
- Family planning programs
- HPV vaccination programs

9. Ethics & Legal Aspects

- Informed consent
- Medico-legal issues in obstetrics
- MTP Act (Medical Termination of Pregnancy)
- Consent in sterilization
- Patient confidentiality
- Medical negligence