

Syllabus for PhD entrance Examination: OBSTETRICS & GYNAECOLOGY

1. Basic Sciences

- Normal and abnormal development, structure and function (female and male) urogenital system and female breast.
- Applied Anatomy of genito-urinary system, abdomen, pelvis, pelvic floor, anterior abdominal wall, upper thigh (inguinal ligament, inguinal canal, vulva, rectum and anal canal).
- Development, structure and function of placenta, umbilical cord and amniotic fluid.
- Physiological and neuro-endocrinal changes during puberty, adolescence, menstruation, ovulation, fertilization, climacteric and menopause.
- Biochemical and endocrine changes during pregnancy, including systemic changes in cardiovascular, hematological, renal hepatic, renal, hepatic and other systems.
- Pharmacology of identified drugs used during pregnancy, labour, post-partum period in reference to their absorption, distribution, excretion, (hepatic) metabolism, transfer of the drugs across the placenta, effect of the drugs (used) on labor, on fetus, their excretion through breast milk.
- Pathophysiology of ovaries, fallopian tubes, uterus, cervix, vagina and external genitalia in healthy and diseased conditions.
- Normal Pregnancy, physiological changes during pregnancy, labor and puerperium.

2. Clinical obstetrics

- Prenatal care of normal pregnancy including examination, nutrition, immunization and follow up.
- Identification and management of complications and complications of pregnancy – abortion, ectopic pregnancy, vesicular mole, Gestational trophoblastic Diseases, hyperemesis gravidarum, multiple pregnancy, antipartum hemorrhage, pregnancy induced hypertension, preeclampsia, eclampsia, Other associated hypertensive disorders, Anemia, Rh incompatibility, diabetes, heart disease, renal and hepatic diseases, preterm - post term pregnancies, intrauterine fetal growth retardation,
- Neurological, hematological, dermatological diseases, immunological disorders and other medical and surgical disorders/problems associated with pregnancy, Multiple pregnancies, Hydramnios, Oligoamnios. Diagnosis of contracted pelvis (CPD) and its management, High-risk pregnancy
- Pregnancy associated with complications, medical and surgical problems, Prolonged gestation, Preterm labor, premature rupture of membranes, Blood group incompatibilities, Recurrent pregnancy wastage.
- Evaluation of fetal and maternal health in complicated pregnancy by making use of diagnostic modalities including modern ones (USG, Doppler, Electronic monitors) and plan for safe delivery for mother and fetus. Identifying fetus at risk and its management. Prenatal diagnostic modalities including modern ones.
- Infections in pregnancy (bacterial, viral, fungal, protozoan)
Malaria, Toxoplasmosis, Viral – Rubella, CMV, Herpes, HIV, Hepatic viral infections (B, C etc), Sexually Transmitted Infections (STDs), Mother to fetal transmission of infections.
- Identification and management of fetal malpositions and malpresentations. Management of pregnancies complicated by medical, surgical (with other specialties as required) and gynecological diseases.
- Anemia, hematological disorders, Respiratory, Heart, Renal, Liver, skin diseases, Gastrointestinal, Hypertensive, Autoimmune, Endocrine disorders, Associated Surgical Problems, Acute Abdomen (surgical

emergencies - appendicitis and GI emergencies), Other associated surgical problems, Gynaecological disorders associate with pregnancy - congenital genital tract developmental anomalies,

Gynaec pathologies - fibroid uterus, Ca Cx, genital prolapse etc. Prenatal diagnosis (of fetal problems and abnormalities), treatment – Fetal therapy

-M.T.P, PC & P.N.D.T Act etc, National health MCH programs, social obstetrics and vital statistics

3. Clinical Gynaecology and Fertility Regulation

- Epidemiology and etiopathogenesis of gynaecological disorders.
- Diagnostic modalities and management of common benign and malignant gynaecological diseases (diseases of genital tract):
 - Fibroid uterus, Endometriosis and adenomyosis, Endometrial hyperplasia, Genital prolapse (uterine and vaginal)
 - Cervical erosion, cervicitis, cervical polyps, cervical neoplasia.
 - Vaginal cysts, vaginal infections, vaginal neoplasia (VIN)
 - Benign Ovarian pathologies
 - Malignant genital neoplasia - of ovary, Fallopian tubes, uterus, cervix, vagina, vulva and Gestational Trophoblastic diseases, Cancer Breast.
 - Diagnosis and surgical management of clinical conditions related to congenital malformations of genital tract. Reconstructive surgery in gynaecology.
 - Reproductive endocrinology: Evaluation of Primary/secondary Amenorrhea, management of Hyperprolactinemia, Hirsutism, Chronic an-ovulation, PCOD, thyroid and other endocrine dysfunctions.
 - Infertility - Evaluation and management
 - Principles of radiotherapy and chemotherapy in gynaecological malignancies. Choice, schedule of administration and complications of such therapies.
 - Rational approach in diagnosis and management of endocrinal abnormalities such as: menstrual abnormalities, amenorrhea (primary/secondary), dysfunctional uterine bleeding, polycystic ovarian disease, hyperprolactinemia (galactorrhea), hyperandrogenism, thyroid - pituitary - adrenal disorders, menopause and its treatment (HRT).
 - Urological problems in Gynaecology - Diagnosis and management.
 - Orthopedic problems in Gynaecology.
 - Menopause: management (HRT) and prevention of its complications.
 - Endoscopy (Laparoscopy - Hysteroscopy)
 - Operative Gynaecology - Abdominal and Vaginal Hysterectomy, Surgical Procedures for genital prolapse, fibromyoma, endometriosis, ovarian, adenexal, uterine, cervical, vaginal and vulval pathologies, Surgical treatment for urinary and other fistulae, Urinary incontinence, Operative Endoscopy
 - Knowledge of in contraceptive techniques (including recent developments).
 - Medical Termination of Pregnancy: Act, its implementation, providing safe and adequate services.