

BHARATI VIDYAPEETH
(DEEMED TO BE UNIVERSITY), PUNE, INDIA
PhD Entrance Test – 2023
SECTION-II: Obstetrics & Gynecology - 35 Marks

Basic Sciences:

1. Normal and Abnormal development of genital organs. Applied Anatomy of genito-urinary system, abdomen, pelvis, pelvic floor, anterior abdominal wall.
2. Development, structure and function of placenta, umbilical cord and amniotic fluid.
- Anatomical and physiological changes in female genital tract during pregnancy.
- Anatomy of fetus, fetal growth and development, fetal physiology and fetal circulation.
3. Biochemical and endocrine changes during pregnancy, including systemic changes in cardiovascular, hematological, renal hepatic, renal, hepatic and other systems.
4. Biophysical and biochemical changes in uterus and cervix during pregnancy and labor.
5. Pharmacology of various drugs used in Pregnancy and Critical Care in Obstetrics.
Role of hormones in Obstetrics.
6. Normal and abnormal pathology of placenta, umbilical cord, amniotic fluid and fetus.
7. Gametogenesis, fertilization, implantation and early development of embryo.
8. Normal Pregnancy, physiological changes during pregnancy, labor and puerperium.
9. Immunology of pregnancy
10. Normal and abnormal microbiology of genital tract. Bacterial, viral and parasitical infections responsible for maternal, fetal and gynecological disorders.
11. Humoral and cellular immunology in Obstetrics & Gynecology
12. Tumor markers in Obstetrics and Gynecology

Basic medical genetics including cytogenetics.

13. Pattern of inheritance, Chromosomal abnormalities - types, incidence, diagnosis, management and recurrence risk.
14. General principles of Teratology. Screening, counseling and prevention of developmental abnormalities. Birth defects - genetics, teratology and counseling.
15. Prenatal care, Prenatal Diagnosis.

Clinical & Operative Obstetrics, Care of Newborn

16. Antenatal care including identification and management of high risk pregnancies.
17. Recurrent Pregnancy Loss, Anemia, Acute Pregnancy complications.
18. Acute abdomen in Obstetrics and Gynecology.
19. Prenatal Diagnosis, POCSO act, PCPNDT and MTP act with amendments.
20. Normal Labor with physiology and mechanism.
21. Labor complications with Maternal and fetal monitoring. Management of 3rd stage complications including PPH, retained placenta, inversion of uterus.
22. Management of critically ill woman.

23. Post-partum shock, sepsis and psychosis.
24. Breast feeding and baby friendly practices.
25. Normal & Abnormal Puerperium
26. Vaginal instrumental delivery, Caesarian section, Obst. Hysterectomy, manipulations (External/internal podalic version, manual removal of placenta etc)
27. Medical Termination of Pregnancy - safe abortion - selection of cases, technique and management of complication.
28. Care of Newborn, Neonatal resuscitation, diseases of newborn.
29. Abnormal uterine bleeding, PALM-COEIN classification, Diagnosis and management of various cause of AUB.

Gynecological Disorders including Fertility

30. Reproductive endocrinology, Infertility: Causes, diagnosis and management including ART and Surrogacy.
31. Gynecological oncology including the preventive aspects. Role of Radiotherapy and Chemotherapy in gynecology.
32. Endoscopy: Hysteroscopy and Laparoscopy.
33. Operative Gynecology including hysterectomy, Robotic Surgery.

Demography and Contraceptives

34. Statistics regarding maternal mortality, perinatal mortality/morbidity, birth rate, fertility rate.
35. Organizational and operational aspects of National health policies and programs, in relation to population and family welfare including RCH.
36. Various temporary and permanent methods of male and female contraceptive methods.
37. Knowledge of in contraceptive techniques (including recent developments).

Maternal & Fetal Medicine

38. Inverted Pyramid of care in pregnancy.
39. Soft markers in obstetrics, Invasive testing for aneuploidies. NIPS and microarray.
40. Ultrasonography and Dopplers in High Risk Pregnancies.
41. Fetal surgery.
42. Antenatal interventions for fetal well-being.