

SINGHANIA UNIVERSITY

Curriculum

M.D. Obstetrics & Gynaecology

DURATION = 3Years

A. Theory examination (Total = 400 marks)

Paper Title Marks

Paper 1: Basic sciences as related to Obstetrics & Gynaecology 100

Paper 2: Obstetrics including diseases of Neonates 100

Paper 3: Principles and Practice of Gynaecology and
Gynaecological Pathology 100

Paper 4: Recent Advances in Obstetrics & Gynaecology 100

B. Practical & Viva voce examination (Total = 400 marks)

Long Case(s) 200

Short Case(s) 100

Viva 100

1. Syllabus

1.1. Theory

_ Obstetrics

_ Gametogenesis fertilization, implantation and early development of embryo

_ Normal Labour

_ Anatomical and Physiological changes in female genital tract during pregnancy.

_ Pharmacology of drugs used during pregnancy, Labour, Post-partum period.

_ Development of placenta.

_ Amniotic fluid.

_ Anatomy of fetus, fetal growth & development, fetal physiology & circulation.

_ Puerperium – Normal

_ Malpresentation & malposition of labour

_ Abnormal Puerperium

_ CPD & its management

_ Complications of 3rd stage of labour

_ Hypertensive disorders in pregnancy

_ Antepartum Hemorrhage

_ PROM, Poly Hydramnios, Oligo Hydramnios

_ Obstetrical Hemorrhage (includes Antenatal & postpartum)

_ Hypertensive disorders of pregnancy

_ Medical disorders in pregnancy

_ Emergency Obstetric Care (Intensive Obstetrics)

_ Antepartum & intrapartum fetal monitoring.

_ Gynaecology

_ Normal and abnormal microbiology of genital tract & bacterial, viral & parasitic infections responsible

- _ for maternal fetal & Gynae disorders.
- _ Endocrinology related to reproduction
- _ Physiology of menstruation, ovulation, fertilization & menopause.
- _ Methods of contraception.
- _ Fibroid uterus
- _ Colposcopy & vaginal and cervical cytology
- _ Endometrial Hyperphasia, DUB, Abnormal bleeding.
- _ Endometriosis, Adenomyosis
- _ Endocrine abnormalities, Menstrual abnormalities Amenorrhoea, PCOD,
- _ Hirsutism, Hyperprolactinemia, Thyroid disorders.
- _ Laparoscopy & Hysteroscopy
- _ Ca Cervix
- _ Ca Endometrium
- _ Carcinoma Ovary
- _ Menopause

- _ Genital Fistulae / Urinary Incontinence
- _ Prolapse
- _ Contraception / Family Planning / Sterilization methods
- _ Endometriosis, Adenomyosis
- _ Infertility.

1.2. Practical

- _ **Obstetrics**
- _ Venepuncture
- _ Amniotomy
- _ Conduct of normal Vaginal delivery
- _ Perineal infiltration & Pudendal block
- _ Episiotomy
- _ Ventouse delivery
- _ Forceps delivery
- _ Management of Genital tract injuries
- _ Exploration of Cervix
- _ Lower Segment Caesarean Section
- _ Manual Removal of Placenta
- _ Breech vaginal delivery
- _ External Cephalic Version
- _ Delivery of twins
- _ Management of shock
- _ Management of Postpartum hemorrhage
- _ Cervical Cerclage
- _ Amnio infusion
- _ Instillation of extra amniotic & intra amniotic drugs
- _ Non stress Test
- _ Suction Evacuation
- _ Dilatation & Evacuation
- _ Repair of complete perineal tear
- _ Repair of cervical tear

- _ Caesarean Hysterectomy
- _ Internal iliac ligation
- _ Uterine & Ovarian Artery ligation
- _ Destructive operations
- _ Reposition of inversion uterus
- _ Amnio centesis
- _ **Gynaecology**
- _ Pap Smear
- _ Wet smear examination
- _ Post Coital Test
- _ Endometrial Biopsy
- _ Endometrial Aspiration
- _ Dilatation and Curettage/Fractional Curettege / Polypectomy
- _ Cervical Biopsy
- _ Cryo / Electrocautery of Cervix
- _ Hystero Salpingography
- _ Diagnostic Laparoscopy & Hysteroscopy
- _ Opening & closing of abdomen
- _ Operations for utero vaginal prolapse
- _ Operations for Ovarian tumors
- _ Operations for Ectopic pregnancy
- _ Vaginal hysterectomy
- _ Abdominal Hysterectomy
- _ Myomectomy
- _ Colposcopy
- _ Loop Electro Surgical Excision Procedure
- _ Tuboplasties
- _ Paracentesis
- _ Culdocentesis
- _ Endoscopic surgery (Operative Laparoscopy & Hysteroscopy)
- _ Repair of genital fistulae
- _ Operations for Urinaryincontinence
- _ Radical operations for gynaecological malignancies
- _ Vaginoplasty
- _ Intrauterine insemination
- _ Basic ultrasound / TVS
- _ Hydrotubation
- _ Vulval Biopsy
- _ Incision & drainage
- _ **Family Planning**
- _ Intra Uterine Contraception Device Insertion / removal
- _ Female sterilization
- _ Post Partum & Interval
- _ Open & Laparoscopic
- _ MTP
- _ Male Sterilization

2. Teaching Programme

2.1 General Principles

Acquisition of practical competencies being the keystone of postgraduate medical education, postgraduate training should be skills oriented.

Learning in postgraduate program is essentially self-directed and primarily emanating from clinical and academic work. The formal sessions are meant to supplement this core effort.

2.2 Teaching Sessions:

- _ Clinical case discussions:
- _ PG Bed side
- _ Teaching rounds
- _ Seminars / Journal Club
- _ Statistical meetings: Weekly./ monthly
- _ Mortality meetings
- _ Interdepartmental Meetings : Pediatrics, Radiology
- _ Others – Guest Lectures / Vertical Seminars / Central Stat Meets

3. Postings

_ Emphasis should be self-directed learning, group discussions, case presentations & practical hands on learning.

_ Student should be trained about proper history taking, clinical examination, advising relevant investigations,

_ their Interpretations and instituting medical surgical management by posting the candidates in OPD, specialty

_ clinics, wards, operation theatres, labour room, family planning clinics & other departments like neonatology,

_ radiology, anaesthesia. The candidates must be trained to manage all emergency situations seen frequently.

_ Gynaecology Ward

_ Labour-room

_ Emergency

_ Family Planning

_ Gynaecology Operation Theatre

4. Thesis

6.1 Every candidate shall carry out work on an assigned research project under the guidance of a recognized Postgraduate Teacher, the project shall be written and submitted in the form of a thesis.

6.2 Every candidate shall submit thesis plan to the University within nine months from the date of admission.

6.3 Thesis shall be submitted to the University six months before the commencement of theory examination

i.e. for examination May/June session, 30th November of the preceding year of examination and for November/December session 31st May of the year of examination.

6.4 The student will identify a relevant research question; (ii) conduct a critical review of literature; (iii) formulate a hypothesis; (iv) determine the most suitable study design; (v) state the objectives of the study; (vi) prepare a

study protocol; (vii) undertake a study according to the protocol; (viii) analyze and interpret research data, and draw conclusions; (ix) write a research paper.

5. ASSESSMENT

All the PG residents are assessed daily for their academic activities and also periodically.

5.1. General Principles

- _ The assessment is valid, objective, and reliable.
- _ It covers cognitive, psychomotor and affective domains.
- _ Formative, continuing and summative (final) assessment is also conducted.,
- _ Thesis is also assessed separately.

5.2. Formative Assessment

The formative assessment is continuous as well as periodical. The former is based on the feedback from the senior residents and the consultants concerned. Assessment is held periodically. Formative assessment will not count towards pass/fail at the end of the program, but will provide feedback to the candidate.

5.3. Internal Assessment

The performance of the Postgraduate student during the training period should be monitored throughout the course and duly recorded in the log books as evidence of the ability and daily work of the student. Marks should be allotted out of 100 as followed.

Sr. No. Items Marks

1. Personal Attributes	20
2. Clinical Work	20
3. Academic activities	20
4. End of term theory examination	20
5. End of term practical examination	20

1. Personal attributes:

Behavior and Emotional Stability: Dependable, disciplined, dedicated, stable in emergency situations, shows positive approach.

Motivation and Initiative: Takes on responsibility, innovative, enterprising, does not shirk duties or leave any work pending.

Honesty and Integrity: Truthful, admits mistakes, does not cook up information, has ethical conduct, exhibits good moral values, loyal to the institution.

_ **Interpersonal Skills and Leadership Quality:** Has compassionate attitude towards patients and attendants, gets on well with colleagues and paramedical staff, is respectful to seniors, has good communication skills.

2. Clinical Work:

_ **Availability:** Punctual, available continuously on duty, responds promptly on calls and takes proper permission for leave.

_ **Diligence:** Dedicated, hardworking, does not shirk duties, leaves no work pending, does not sit idle, competent in clinical case work up and management.

_ **Academic ability:** Intelligent, shows sound knowledge and skills, participates adequately in academic activities, and performs well in oral presentation and departmental tests.

_ **Clinical Performance:** Proficient in clinical presentations and case discussion during rounds and OPD work up. Preparing Documents of the case

history/examination and progress notes in the file (daily notes, round discussion, investigations and management) Skill of performing bed side procedures and handling emergencies.

3. Academic Activity: Performance during presentation at Journal club/ Seminar/ Case discussion/Stat meeting and other academic sessions. Proficiency in skills as mentioned in job responsibilities.

4. End of term theory examination conducted at end of 1st, 2nd year and after 2 years 9 months

5. End of term practical/oral examinations after 2 years 9 months.

Marks for **personal attributes** and **clinical work** should be given annually by all the consultants under whom the resident was posted during the year. Average of the three years should be put as the final marks out of 20.

Marks for **academic activity** should be given by the all consultants who have attended the session presented by the resident.

The Internal assessment should be presented to the Board of examiners for due consideration at the time of Final Examinations.

6. Job Responsibilities

_ OPD :

History & Work up of all cases and presentation to the consultants.

This includes all the special clinics including infertility, endocrinology, oncology, Menopause & adolescent clinic. Documentation in OPD Card, register completion and maintenance.

_ Minor Procedures

_ Aseptic Dressings / Stitch removal / Pap smear collection / Colposcopy /

_ Cryo Cautery / Electrocautery / HSG.

_ Family Planning

Counselling for contraception / Sterilization / IUCD insertion / Removal.

_ Indoors

_ Labour-room / L-room Recovery

_ History & work up of all cases. Examination of all patients and documentation in the files.

_ Sending investigations & filing investigation forms.

_ Performing NST, Maintaining partogram in in labouring patients.

_ Monitoring vitals, uterine contractions and fetal heart rate in labouring patients , conducting deliveries,

_ Episiotomy stitching and neonatal resuscitation.

_ I/V Line insertion, RT insertion, Catheterization, preparation of Synto drip, instillation of misoprostol or

_ Cerviprime for induction of labour.

_ Management of sick patients including those with Eclampsia, Abruption & PPH Assessment & shifting of sick patients to ICUs.

_ Completion of files

Curriculum M.D. Obs & Gyn

191

_ Preparation of discharge summary

_ Preparation of weekly, monthly and annual stat.

_ Assisting major procedures listed above.

7. Suggested Books

7.1 Core Books

– Obstetrics

- Holland and Brews Manual of Obst. .
- Williams Obstetrics
- Text book of Obstetrics by Dutta DC
- Practical guide to High Risk Pregnancy and delivery – Arias Fernando

– Gynaecology

- Shaw's Text book of Gynaecology
- Novak's Gynaecology
- Jeffcoate's Principles of Gynaecology

7.2 Reference Books

– Obstetrics

- Medical Disorders in Pregnancy by Barnes
- Medical Disorders in Pregnancy by FOGSI
- MunroKerr's Operative Obstetrics
- Care of the Newborn 6th ed. Meharban Singh
- Obstetrics and Gynaecology 5th ed. Krishna Menon Sauerberi E.E
- USG in Obst. & Gynaecology by Callens
- USG in Obst. & Gynaecology by Kuldeep Singh
- Medicolegal aspects in Obst. & Gynae – Mukherjee GG
- Clinical Obstetrics – by Mudaliar
- Text book of Obstetrics by Sudha Salhan

– Gynaecology

- Te Linde's Operative Gynaecology .
- Bonneys's Gyn Surgery 10th ed.
- Shaws Operative Gynaecology
- Practice of fertility control 7th ed. – Chaudhary S.K.
- Text book of Gynae contraception 14th ed. C.S. Dawn
- Infertility – R. Rajan

– Speroff – Leon

- Year book of Obst. & Gynae
- Principles & Practice of Colposcopy by B. Shakuntala Baliga
- Laparoscopy & Hysteroscopy by Sutton
- Hormone replacement Therapy by White Head M.
- Gynae & Obst. Procedures – Parulikar S.V.
- Surgery in infertility & Gynaecology – Jain Nutan
- Principles & Practice of Colposcopy – Balya B.S.
- Infertility Manual – Rao Kamini A.
- Operative Laparoscopy – Soderstrom R
- Chemotherapy of Gynaecological Malignancies - Borker C

8. Model Test Papers

MODEL QUESTION PAPER
MD (Gynaecology & Obstetrics)
Paper-I

Basic sciences as related to Obstetrics & Gynaecology

Max. Marks:100 Time: 3 hrs

- Attempt ALL questions**
 - Answer each question & its parts in SEQUENTIAL ORDER**
 - ALL questions carry equal marks**
 - Illustrate your answer with SUITABLE DIAGRAMS**
- I. Describe the Haematological changes during Pregnancy
 - II. What are the causes of Galactorrhoea. Discuss the management of Microprolactinoma in 20yrs old infertile patient & in pregnancy.
 - III. Enumerate the causes of vault Prolapse. How will you manage vault prolapse
 - IV. Clinical application of vaginal cytology in pregnancy.
 - V. Describe the Prenatal diagnosis of chromosomal anomalies in a fetus.
 - VI. What is the use of Methotrexate in Obstetrics & Gynaecology ?
 - VII. Give an account of changes in fetal circulation immediately after the birth of baby.
 - VIII. Enumerate applications of colour doppler in obstetrics and describe the findings of colour doppler in placental insufficiency.
 - IX. Aim & objectives of P N D T Act. Enumerate the clauses for 2nd trimester abortions.
 - X. Discuss the management of 23 yrs Primi at 34 weeks gestation presenting with tonic clonic convulsions.

MODEL QUESTION PAPER
MD (Gynaecology & Obstetrics)
Paper-II

Obstetrics including diseases of Neonates
Max. Marks:100 Time: 3 hrs

- Attempt ALL questions**
 - Answer each question & its parts in SEQUENTIAL ORDER**
 - ALL questions carry equal marks**
 - Illustrate your answer with SUITABLE DIAGRAMS**
- I. Give the classification of hypertension in pregnancy. Describe the pathophysiological changes in pre-eclampsia
 - II. Discuss the Laparoscopic management of Ectopic pregnancy
 - III. Discuss management of Primigravida with RHD with MS with grade II dyspnoea with fever at 30 weeks of gestation
 - IV. What are the criteria for the diagnosis of Residual Trophoblastic disease. Discuss its management .
 - V. Describe the selection criteria and explain the intrapartum monitoring of vaginal birth after caesarean section.
 - VI. What are the causes of occipitoposterior position. Discuss its management in second stage
 - VII. Explain the medical and surgical measures for prevention of parent to child transmission of HIV infection.
 - VIII. How will you manage a 10 days postpartum lady presenting with swollen left leg.
 - IX. What are the indications of medical & surgical fetal therapy.
 - X. Give an account of the management of an Rh isoimmunized newborn.

MODEL QUESTION PAPER
MD (Gynaecology & Obstetrics)
Paper-III

Principles and Practice of Gynaecology and Gynaecological Pathology

Max. Marks:100 Time: 3 hrs

- Attempt ALL questions**
 - Answer each question & its parts in SEQUENTIAL ORDER**
 - ALL questions carry equal marks**
 - Illustrate your answer with SUITABLE DIAGRAMS**
- I. Enumerate types of epithelial ovarian tumours. Discuss principles of management of epithelial ovarian tumour stage IIIc.
 - II. Give a detailed account on follow up of CIN 2.
 - III. Describe the tests of ovulation
 - IV. Explain medical management of endometriosis
 - V. What are the secondary changes and complications of fibroid uterus. Discuss the role of uterine artery embolisation in management of fibroids.
 - VI. Enumerate the supports of uterus. Discuss the management of third degree UV prolapse.
 - VII. What are the types of DUB. How will you manage a case of puberty menorrhagia.
 - VIII. How will you evaluate a case of post menopausal bleeding?
 - IX. How will you manage a case of misplaced IUCD ?
 - X. What are the natural defence mechanisms of vagina against infection. Discuss bacterial vaginosis.

MODEL QUESTION PAPER
MD (Gynaecology & Obstetrics)
Paper-IV
Recent Advances in Obstetrics & Gynaecology
Max. Marks:100 Time: 3 hrs

- Attempt ALL questions**
 - Answer each question & its parts in SEQUENTIAL ORDER**
 - ALL questions carry equal marks**
 - Illustrate your answer with SUITABLE DIAGRAMS**
- I. Discuss the use of misoprostol in labour induction & abortion.
 - II. Describe management of atonic PPH in 25 years old female.
 - III. Discuss management of Hirsutism in 22 year old girl with PCOD.
 - IV. Discuss recent advances in surgical & medical management of DUB.
 - V. Give WHO criteria for Semen Analysis ? How will you treat a 28 years old male with oligoteratoasthenozoospermia?
 - VI. Describe various criteria for breech vaginal delivery
 - VII. Discuss the management of post menopausal osteoporosis in 55 years old lady.
 - VIII. Management of IUGR at 28 weeks of gestation in G2 P1 L1 A0 S0.
 - IX. Enumerate sex cord tumors. How will you manage a 22 year old girl presenting with such tumours.
 - X. Discuss causes, Pathophysiology diagnosis & treatment of HELLP Syndrome