

Chapter III

Post Graduate Courses in Obstetrics & Gynaecology

M.S. Obstetrics & Gynaecology

Goal

The goals of postgraduate training course would be to train a MBBS doctor who will:

- Practice efficiently and effectively, backed by scientific knowledge and skill base.
- Exercise empathy and a caring attitude and maintain high ethical standards.
- Continue to evince keen interest in continuing education in the speciality irrespective of whether he is in a teaching institution or is a practicing specialist.
- Be a motivated 'teacher' – defined as a specialist keen to share his knowledge and skills with a colleague or a junior or any learner.

Objectives

With the knowledge and skills developed at the completion of the course, the candidate shall be able to:-

- i. Offer to the community, the current quality of 'Standard care' in obstetrics & Gynaecological diagnosis' as well as therapeutics. Medical or surgical, for common as well as referred conditions.
- ii. Periodically self assess his or her performance and keep abreast with ongoing advances in the field & apply the same in his / her practice.
- iii. Be aware of his or her own limitations to the application of the speciality in situations which warrant referral to major centers or individuals more qualified to treat.
- iv. Apply research and epidemiological methods during his/her practice. The candidate shall be able to present or publish work done by him/her.
- v. Contribute as an individual or in a group or institution towards the fulfillment of national objectives with regard to prevention of maternal mortality and morbidity and improving the neonatal outcome.
- vi. Effectively communicate with patients or relatives so as to educate them sufficiently and give them full benefit of informed consent to treatment and ensure compliance.
- vii. Effectively communicate with colleagues.

Course Contents

It includes topics not only of obstetrics and Gynaecology but also those aspects of Medicine, Surgery, Pediatrics, applied Anatomy Physiology, Pathology, Pharmacology and Microbiology relevant to the practice of both Obstetrics and Gynaecology. It is intended as a guide to the candidates and it is not comprehensive.

As and when there is newer development it becomes eligible for inclusion. Hence the candidates should familiar themselves with the current content of the scientific journals and reviews of major topics.

Theory

Basic Sciences

Genetics

- Normal and abnormal Karyo types
- Problems of intersex
- Genetic causes of infertility and early pregnancy loss
- Genetic aspects of artificial insemination

Anatomy Including Embryology

Gametogenesis, Ovulation, fertilization, implantation, development of foetus and placenta. Development of male and female genital tract. Problems of abnormal development of genital tract in Obstetrics and Gynaecology. Anatomy of Urogenital system, including pelvic musculature. Blood supply, innervation and Lymphatic drainage of the pelvis and reproductive organs.

Pathology

Pathology of inflammatory disease, degenerative and neoplastic disease of vulva vagina, cervix and uterus, fallopian tubes, Ovaries and broad ligament.

Haematology

Blood groups, Rh factor, incompatibility, Blood transfusion.

Biochemistry

Steroid and prostaglandin synthesis and metabolism in mother and foetus. Maternal and foetal carbohydrate, lipid, amino-acid metabolism and iron metabolism. Synthesis and secretion of foetal pulmonary surfactant.

Endocrinology

Structure, synthesis, function, metabolism and principles of assay of hormones, produced from hypothalamus, Anterior and posterior pituitary, Thyroid, Pancreas, Adrenal cortex, adrenal medulla, Ovary, Testis, and placenta.

Pharmacology

Placental transfer of drugs and its effects on mother and foetus, Eg: Antibiotics, anti hypertensives, Psychotropic drugs, Oral contraceptives, Chemotherapeutic drugs, Anticonvulsants, Anti coagulants and Oxytocic drugs, effects of tobacco and alcohol on pregnant mother and foetus. Teratogenic effect of drugs taken during lactational period.

Immunology

Basic immunology including primary and secondary immune response, mechanism of antibody production. HLA system and graft rejection. Change in pregnancy and the foetus as a graft. Immunological pregnancy tests. Rhesus and other Isoimmunisation. Active and passive immunisation and Auto immune disease.

Microbiology

Epidemiology and pathophysiology of disease developing in pregnancy that is Septic abortion, Preterm labour, PROM, Puerperal sepsis, Mastitis, Septic shock and Neonatal sepsis. Microbiology of TORCH infection, Syphilis, Chlamydia, Mycoplasma, hepatitis and HIV.

Maternal physiological changes during pregnancy

- i) Fluid and electrolyte balance.
- ii) Changes in respiratory, Cardio vascular system.
- iii) Changes in Gastro-intestinal system – including liver and pancreas
- iv) Change in urinary system
- v) Hematological changes including coagulation mechanism and fibrinolytic system

Teratology

Mechanisms of teratogenesis. Effect of possible teratogens – drugs virus radiation and other agents.

Antenatal care

Includes diagnosis, of pregnancy, Identification of high risk group of mothers and foetus with different modality of investigation. Clinical monitoring or maternal/foetal welfare and selection of place of delivery.

Physiology of Labour

Causation of onsets of labour

Intrapartum care

Maternal and foetal monitoring

Mechanism and management of normal labour

Abnormal pregnancy

- i. Medical diseases and disorders complicating pregnancy and child birth
- ii. Obsteric complications of pregnancy
- iii. Multiple pregnancy
- iv. Congenital malformations
- v. Foetal growth retardation
- vi. Repeated pregnancy loss
- vii. Preterm labour

- viii. Prolonged pregnancy
- ix. Malpresentations
- x. Shock and collapse
- xi. Ectopic pregnancy
- xii. Rh incompatibility.

Abnormalities of Labour and Delivery

Includes induction of labour and abnormal uterine action

Social Obstetrics

Study of interplay of social and environmental factors and human reproduction

going back to premarital a preconception period.

- i. Implementing safe motherhood initiative.
- ii. Community maternal health care
- iii. Antenatal checkup
- iv. MCH problems
- v. Risk approach of pregnant women
Anaemia, STD syphilis, tetanus, AIDS.
- vi. Domicilliary care
- vii. Postnatal complications
- viii. Low birth weight (L.B.W.)
- ix. Socio economic status and birth weight correction
- x. Infant feeding
- xi. Road to health chart and school health programme.
- xii. Pre pregnancy and post pregnancy counseling
- xiii. Reproductive and child health (RCH)
- xiv. National Health Programmes

Family welfare programmes including Reconstructive surgeries

Temporary methods like

- Chemical contraceptives
- Barrier methods
- Hormonal contraception
- IUD

Permanent methods like

- Tubectomy
- Laparoscopy tubal ligation
- Minilap

Reconstructive surgeries like

- Tuboplasty
- Vaso Vasotomy

Perinatology

- i. The term new born infant
- ii. Low birth weight baby, - Preterm, - IUGR
- iii. Asphyxia neonatorum
- iv. Respiratory distress
- v. Jaundice in new born
- vi. Haemorrhagic disease of new born
- vii. Convulsions in new born
- viii. Injuries of the new born
- ix. Infection of new born
- x. Diarrhea in new born
- xi. Vomiting of the new born
- xii. Congenital malformation of new born.

Neonatal

Early neonatal complication, infection and management.

Mortality and Morbidity

Epidemiology, Magnitude of the problem, causes, prevention and management of Maternal mortality and morbidity. Perinatal mortality,

Gynaecology

History taking with special reference to Gynaecological history, abdominal and pelvic examination, relevant investigation to arrive at most probable diagnosis.

Topics includes: Infection, Newgrowths (both benign and malignant) and other pathological disorders of vulva, vagina, urinary bladder, cervix, uterus, fallopian tubes, Ovaries and Pelvic cellular tissues including STD and HIV.

Adolescent Gynaecology

Menstrual disorders, including amenorrhoea, menopause, postmenopausal Gynaecological problems and management of the aged and elderly women.

Chromosomal disorders – including intersex

Gynaecologic clinical cytopathology.

Contraception and family planning.

Infertility and ART

Hormones therapy.

Problem of sex and marriage

Clinical Obstetrics & Gynaecology

Obstetrics

- i. Diagnosis of early pregnancy and its complication and management.
- ii. AIM of ANC and management of high risk pregnancies.
- iii. To work in labour wards and to manage normal and complicated deliveries.

- iv. Neonatal care and resuscitation in labour wards
- v. Follow-up of normal and abnormal deliveries during postnatal period
- vi. Assisting caesarean section initially, by the end of the course, they shall be able to do caesarean sections independently.
- vii. I C U Management.
- viii. Family welfare programmes and reconstructive surgeries of the fallopian tubes.
- ix. Rural obstetrics care and referral services.

Gynaecology

- i. To work in O.P.D. and examine Gynaecology cases routinely,
- ii. Minor operations: To assist in the beginning and carry out work independently by the end of I year
- iii. Major Operations: To assist as second assistant for the I six months and as first assistant for the next 6 months and do major operations like vaginal hysterectomy with P.F.R. and abdominal hysterectomy, Ovariectomy with the assistance of senior doctors. By the end the course the candidate shall be familiar with the techniques of above mentioned operations and to do independently.
- iv. To do investigations like HSG and USG under guidance initially and independently by the end of course.
- v. To assist medico legal cases.
- vi. Writing case records
- vii. Candidate should write separate PG case sheets, They should keep diary and log book and get verified by the Unit Chief by the end of each month.

Essential Research Skills

- i. Basic statistical knowledge.
 - a. Ability to undertake clinical & basic research
 - b. Descriptive and inferential statistics
 - c. Ability to publish results of one's work.
- ii. This could be achieved during the course by attending workshops on research methodology, basic statistics classes and regularly having journal clubs etc., where selected articles are taken and evaluated for content quality and presentation.

Communication abilities

Ability to interact with and work as a team with other colleagues, with patients and with teachers.

Record keeping

The ability to maintain records as scientifically as possible. Knowledge of computer is helpful.

Surgical Skills

1. Conducting minimum 25 cases of normal delivery including forceps and ventose application.
Episiotomy repair, colposyntesis 3rd degree perineal tear suturing
2. Tubectomy both mini lap and laparoscopic sterilisation.

3. Destructive operations (25 cases)

Minor O.T. procedures:

- i. MTP, D&C, suction evacuation, M.R. Mid-Trimester procedures extraamniotic instillation with of 2%ethacardine inj, Local application cerviprime gel insertion of intrauterine devisors.
- ii. Cervical and Endometrial biopsy, electric couterisation and cold cautery tube testing procedure and histosalphingogram,
- iii. Cervical biopsy, pap-smear,
- iv. Diagnostic laparoscopy and colposyntosis

Major O.T. Procedures

- i. Caesarean section minimum 10 to be done and 20 operations to be assisted
- ii. Vaginal hysterectomy minimum 20 to be assisted and 5 to be performed
- iii. Abdominal hysterectomy minimum 20 to be assisted and 5 to be performed
- iv. Ovariectomy
- v. Cervical encercelage
- vi. Caesarian hysterectomy
- vii. Salpingectomy for ectopic pregnancy
- viii. Laparotomy
- ix. Internal iliac ligation
- x. Internal pelvic version and MRP
- xi. Operation for inversion of uterus

4. Special Operations (Only to assist)

- i. Tuboplasty
- ii. Myomectomy
- iii. Ovarian de-bulking operation
- iv. Ventrofixation (Gilliam's operation)
- v. Sling operations for prolapse
- vi. Wartheim's hysterectomy
- vii. Simple and radical vulvectomy
- viii. Operation for stress incontinence

Year wise Structured Training Schedule

I year

Theoretical knowledge, Basic sciences

- i. Examination and diagnosis of Obstetrics & Gynaecological cases with relevant investigations case recording.

- ii. *Surgical Skills*

Assisting Caesarian sections as second assistant initially and later on as first assistant,

with supervision.

Assisting all major gynaecological operations like, vaginal & abdominal hysterectomies as a second assistant.

Minor Operations

Assisting minor operations like M.T.P., Tubectomy, Laprascopy, Cervical biopsy,

D & C in the initial period, and later on doing independently under supervision.

II Year

Theoretical knowledge of Allied subjects

Clinical examination and diagnosis: The student is encouraged to take diagnostic, investigational and therapeutic decisions.

Surgical Skills: At the end of the second year the student should be capable of operating without assistance but under supervision, like caesarean section and minor operations like, M.T.P. cervical biopsy, D & C, tubectomies, outlet forceps, emergencies during delivery. The student must know how to manage the complications during and after delivery confidently.

Conference and workshops: Encouraged to attend one conference of State level and at National level. Presentation of paper in the conference should be encouraged.

The student should be involved actively in presentation of seminars, panel discussion, Journal clubs and case discussions with seniors, and to maintain record in Log book.

IIIrd Year

Should be through with basic, allied and recent advances.

Clinical Diagnosis & Examination: Should be able to make clinical diagnosis and be familiar with techniques of operations like caesarean sections, abdominal and vaginal hysterectomies, reconstructive surgeries of fallopian tubes and surgeries on ovarian tumours. Techniques of assisted reproductive technologies.

Teaching activities: Final year student should take lead in conducting seminars, panel discussions, Journal Clubs and case discussions with I & II year students. The student should involve himself/herself in teaching undergraduate students specially bedside clinics.

The student should attend National and State level conferences, C.M.E. Programmes and workshops on colposcopy, Hysteroscopy and endoscopic surgeries, including ultrasound guided procedures. The student must also be exposed to the Assisted reproductive technologies like, I.V.F-E-T. ICSI, and also to observe radical surgeries in Gynaec-Oncology.

Rotation and Labour ward Postings

- i. The student must work in labour wards atleast 6 months during II & III year. (3 months each year)
- ii. Pediatrics : 1 month
- iii. Radio-diagnosis including Ultrasound and NST: 1 month
- iv. Radiotherapy (oncology): 1 month
- v. Anesthesia: 1 month

Teaching/Learning Experience

Teaching and Learning Activities

A candidate pursuing the course should work in the institution as a full time student. No candidate should be permitted to run a clinic/laboratory/nursing home while studying postgraduate course. Each year should be taken as a unit for the purpose of calculating attendance.

Every student shall attend teaching and learning activities during each year as prescribed by the department and not absent himself / herself from work without valid reasons.

A list of teaching and learning activities designed to facilitate students acquire essential knowledge and skills outlined is given below:

1. *Lectures* : Lectures are to be kept to a minimum. They may, however, be employed for teaching certain topics. Lectures may be didactic or integrated.
 - a) *Didactic Lectures*: Recommended for selected common topics for post graduate students of all specialties. Few topics are suggested as examples:
 - 1) Bio-statistics
 - 2) Use of library,
 - 3) Research Methods
 - 4) Medical code of Conduct and Medical Ethics
 - 5) National Health and Disease Control Programmes
 - 6) Communication Skills etc.

These topics may preferably taken up in the first few weeks of the 1st year.

- b) *Integrated Lectures*: These are recommended to be taken by multidisciplinary teams for selected topics, eg. Jaundice, Diabetes mellitus, Thyroid etc.

2. *Journal Club* : Recommended to be held once a week. All the PG students are expected to attend and actively participate in discussion and enter in the Log Book relevant details. Further, every candidate must make a presentation from the allotted journal(s), selected articles at least four times a year and a total of 12 seminar presentations in three years. The presentations would be evaluated using check lists and would carry weightage for internal assessment (See Checklist in Chapter IV). A time table with names of the student and the moderator should be announced at the beginning of every year.
3. *Subject Seminar*: Recommended to be held once a week. All the PG students are expected to attend and actively participate in discussion and enter in the Log Book relevant details. Further, every candidate must present on selected topics at least four times a year and a total of 12 seminar presentations in three years. The presentations would be evaluated using check lists and would carry weightage for internal assessment (See Checklist in Chapter IV). A timetable for the subject with names of the student and the moderator should be scheduled at the beginning of every year.
4. *Student Symposium*: Recommended as an optional multi disciplinary programme. The evaluation may be similar to that described for subject seminar.
5. Attending OPD work
6. Ward Rounds: Ward rounds may be service or teaching rounds.
 - a) Service Rounds: Postgraduate students and Interns should do every day for the care of the patients. Newly admitted patients should be worked up by the PGs and presented to the seniors the following day.
 - b) Teaching Rounds : Every unit should have 'grand rounds' for teaching purpose. A diary should be maintained for day to day activities by the students.
Entries of (a) and (b) should be made in the Log book.
7. *Clinico-Pathological Conference*: Recommended once a month for all post graduate students. Presentation be done by rotation. If cases are not available due to lack of clinical postmortems, it could be supplemented by published CPCs.
8. *Inter Departmental Meetings*: Strongly recommended particularly with departments of Pathology and Radio-Diagnosis at least once a week. These meetings should be attended by post graduate students and relevant entries must be made in the Log Book.

Pathology: A dozen interesting cases may be chosen and presented by the post graduate students and discussed by them as well as the senior staff of Surgery department. The staff of Pathology department would then show the slides and present final diagnosis. In these sessions the advance immuno-histo-chemical techniques, the burgeoning markers other recent developments can be discussed.

Radio-diagnosis: Interesting cases and the imaging modalities should be discussed.

8. **Teaching Skills :** Post graduate students must teach under graduate students (Eg. medical, nursing) by taking demonstrations, bed side clinics, tutorials, lectures etc. Assessment is made using a checklist by surgery faculty as well students. (See model check list in Chapter IV). Record of their participation be kept in Log book. Training of post graduate students in Educational Science and Technology is recommended.

9. **Continuing Medical Education Programmes (CME) :** Recommended that at least 2 state level CME programmes should be attended by each student in 3 years.

10. **Conferences:** Attending conferences is optional. However it is encouraged.

The unit heads should scrutinize it every week end. IIOD., should see and sign at the end of each unit posting.

- i. P.G. posted to each unit should write the case history examine the patients in detail and carry out the investigations and shall be responsible for pre operative, operative and post operative care. By the end of the unit posting, shall submit the same to the unit chief and take the signature
- ii.
 1. Clinical cases: Each M.D. student should present atleast 20 clinical cases for discussion in the three year posting (10 Obstetrics & 10 Gynaecology)
 2. Journal club: Each candidate shall present atleast 10 papers on recent advances in Obstetrics and Gynaecology from latest journals in the Journal clubs.
 3. Subject Seminar: They shall participate actively in minimum of eight subject seminars.
 4. They should actively undertake the undergraduate teaching programmes

C.M.E. programmes: shall attend CME programmes and shall present minimum of two papers in any of the Scientific conferences.

Dissertation

Every candidate pursuing degree course is required to carry out work on a selected research project under the guidance of a recognised post graduate teacher. The results of such a work shall be submitted in the form of a dissertation.

The dissertation is aimed to train a post graduate student in research methods and techniques. It includes identification of a problem, formulation of a hypothesis, search and review, of literature, getting acquainted with recent advances, designing of a research study, collection of data, critical analysis, comparison of results and drawing conclusions.

Every candidate shall submit to the Registrar (Academic) of RGUHS, in the prescribed proforma, a synopsis containing particulars of proposed dissertation work within six months from the data of commencement of the course on or before the dates notified by the University. The synopsis shall be sent through the proper channel.

Such synopsis will be reviewed and the dissertation topic will be registered by the University. No change in the dissertation topic or guide shall be made without prior approval of the University.

The dissertation should be written under the following headings:

- i Introduction
- ii Aims or Objectives of study
- iii Review of Literature
- iv Material and Methods
- v Results
- vi Discussion
- vii Conclusion
- viii Summary
- ix References
- x Tables
- xi Annexures

The written text of dissertation shall be not less than 50 pages and shall not exceed 150 pages excluding references, tables, questionnaires and other annexures. It should be neatly typed in double line spacing on one side of paper 9 (A4 size, 8.27" x 11.69") and bound properly. Spiral binding should be avoided. The dissertation shall be certified by the guide, head of the department and head of the Institution.

Four copies of dissertation thus prepared shall be submitted to the Registrar (Evaluation), six months before final examination on or before the dates notified by the University.

The dissertation shall be valued by examiners appointed by the University. Approval of dissertation work is an essential precondition for a candidate to appear in the University examination.

For some more details regarding Guide etc., please see Chapter I and for books on research methodology, ethics, etc., see Chapter IV.

Monitoring Learning Progress

It is essential to monitor the learning progress of each candidate through continuous appraisal and regular assessment. It not only also helps teachers to evaluate students, but also students to evaluate themselves. The monitoring be done by the staff of the department based on participation of students in various teaching / learning activities. It may be structured and assessment be done using checklists that assess various aspects. Checklists are given in Chapter IV.

The learning out comes to be assessed should included: (i) Personal Attitudes, (ii) Acquisition of Knowledge, (iii) Clinical and operative skills, (iv) Teaching skills and (v) Dissertation.

i) **Personal Attitudes.** The essential items are:

- Caring attitudes
- Initiative
- Organisational ability
- Potential to cope with stressful situations and undertake responsibility
- Trust worthiness and reliability
- To understand and communicate intelligibly with patients and others
- To behave in a manner which establishes professional relationships with patients and colleagues
- Ability to work in team
- A critical enquiring approach to the acquisition of knowledge

The methods used mainly consist of observation. It is appreciated that these items require a degree of subjective assessment by the guide, supervisors and peers.

ii) **Acquisition of Knowledge** : The methods used comprise of 'Log Book' which records participation in various teaching / learning activities by the students. The number of activities attended and the number in which presentations are made are to be recorded. The log book should periodically be validated by the supervisors. Some of the activities are listed. The list is not complete. Institutions may include additional activities, if so, desired.

Journal Review Meeting (Journal Club): The ability to do literature search, in depth study, presentation skills, and use of audio- visual aids are to be assessed. The

assessment is made by faculty members and peers attending the meeting using a checklist (see Model Checklist – I, Chapter IV)

Seminars / Symposia: The topics should be assigned to the student well in advance to facilitate in depth study. The ability to do literature search, in depth study, presentation skills and use of audio- visual aids are to be assessed using a checklist (see Model Checklist-II, Chapter IV)

Clinico-pathological conferences : This should be a multidisciplinary case study of an interesting case to train the candidate to solve diagnostic and therapeutic problems by using an analytical approach. The presenter(s) are to be assessed using a check list similar to that used for seminar.

Medical Audit: Periodic morbidity and mortality meeting be held. Attendance and participation in these must be insisted upon. This may not be included in assessment.

iii) *Clinical skills*

Day to Day work : Skills in outpatient and ward work should be assessed periodically. The assessment should include the candidates' sincerity and punctuality, analytical ability and communication skills (see Model Checklist III, Chapter IV).

Clinical meetings : Candidates should periodically present cases to his peers and faculty members. This should be assessed using a check list (see Model checklist IV, Chapter IV).

Clinical and Procedural skills : The candidate should be given graded responsibility to enable learning by apprenticeship. The performance is assessed by the guide by direct observation. Particulars are recorded by the student in the log book. (Table No.3, Chapter IV)

iv) *Teaching skills :* Candidates should be encouraged to teach undergraduate medical students and paramedical students, if any. This performance should be based on assessment by the faculty members of the department and from feedback from the undergraduate students (See Model checklist V, Chapter IV)

v) *Dissertation in the Department :* Periodic presentations are to be made in the department. Initially the topic selected is to be presented before submission to the University for registration, again before finalisation for critical evaluation and another before final submission of the completed work (See Model Checklist VI & VII, Chapter IV)

vi) *Periodic tests*: The departments may conduct three tests, two of them be annual tests, one at the end of first year and the other in the second year. The third test may be held three months before the final examination. The tests may include written papers, practicals / clinicals and viva voce.

vii) *Work diary / Log Book*- Every candidate shall maintain a work diary and record his/her participation in the training programmes conducted by the department such as journal reviews, seminars, etc. Special mention may be made of the presentations by the candidate as well as details of clinical or laboratory procedures, if any conducted by the candidate.

viii) *Records*: Records, log books and marks obtained in tests will be maintained by the Head of the Department and will be made available to the University or MCI.

Log book

The log book is a record of the important activities of the candidates during his training. Internal assessment should be based on the evaluation of the log book. Collectively, log books are a tool for the evaluation of the training programme of the institution by external agencies. The record includes academic activities as well as the presentations and procedures carried out by the candidate.

Format for the log book for the different activities is given in Tables 1,2 and 3 of Chapter IV. Copies may be made and used by the institutions.

Procedure for defaulters: Every department should have a committee to review such situations. The defaulting candidate is counseled by the guide and head of the department. In extreme cases of default the departmental committee may recommend that defaulting candidate be withheld from appearing the examination, if she/he fails to fulfill the requirements in spite of being given adequate chances to set himself or herself right.

Scheme of Examination

A. Theory

There shall be four question papers, each of three hours duration. Each paper shall consist of two long essay questions each question carrying 20 marks and 6 short essay questions each carrying 10 marks. Total marks for each paper will be 100. Questions on recent advances may be asked in any or all the papers. Details of distribution of topics for each paper will be as follows:

Paper I:	Basic Science as applicable to Obstetrics and Gynecology
Paper II:	Obstetrics and Gynecology

Paper III: Gynecology
 Paper IV: Social Obstetrics and Family Welfare Planning

Note: The distribution of chapters / topics shown against the papers are suggestive only.

B. Clinical 200 marks

There shall be two long cases and two short cases to be examined and presented by each candidate. Marks shall be 200.

Type of cases

Long cases: One case of Obstetrics and one case of Gynecology. Each case carries 75 marks.

Short cases: One case of Obstetrics and one case of Gynecology. Each case carries 25 marks.

C. Viva Voce: 100 Marks

1) Viva-Voce Examination: (80 Marks)

All examiners will conduct viva-voce conjointly on candidate's comprehension, analytical approach, expression and interpretation of data. It includes all components of course contents. In addition candidates may be also be given case reports, charts, dummies (pelvis, foetal skull), gross specimens, pathology slides, instruments, X- rays, ultrasound, CT scan images, NST etc., for interpretation. It includes discussion on dissertation also.

2) Pedagogy Exercise: (20 Marks)

A topic be given to each candidate in the beginning of clinical examination. He/she is asked to make a presentation on the topic for 8-10 minutes.

D.

Maximum marks for M.D. Obstetrics & Gynecology	Theory	Practical	Viva	Grand Total
	400	200	100	700

a) Recommended Books

Sl. No.	Name of the Author	Name of the Book	Edition	Name of the Publications
1.	IAN Donald	'Practical Obstetrics problems'	5 th Edn.	B.A.Publication
2.	Farnandes Aris	'Practical guide to high risk pregnancy & delivery'		Mosbi Publications
3.	William's	'Text book of Obstetrics'	21 st Edn.	(not known)
4.	Holland	'Manual of Obstetrics'		B.I.P. Publications
5.	Jeffcoat's	'Principles of Gynaecology'	5 th Edn.	Butterworth

				Heighmen
6.	Shaw's	Text book of Gynaecology'	12 th Edn.	B.L. Churchill Livingston.
7.	Dutta	'Text book of Gynaecology'	2 nd Edn.	Central Publications.
8.	Parulekar	'Practical Gynaecology & Obstetrics'	Latest Edn.	Vora Publications
9.	Munrokar's	'Operative Obstetrics'	10 th Edn.	A.T.B.S. Publi.
10.	Telend's	'Operative Gynaecology'	8 th Edn.	Lipincorttriven Publications
11.	Barus or celil and Burrows	'Medical disorders in Obstetrics practice'	3 rd Edn.	Blackwell science Publications
12.	Rathnam	'Obstetrics and Gynaecology'	2 nd Edn.	Orient Longmen Publications
13.	Arul kumar	'The management of labour	1 st Edn.	Orientlongmen Publications
14.	Bhaskar Rao	'Clinical Gynaecology'	4 th Edn.	Orient Longmen Publications
15.	C.S. Dawn	'Text books of Obstetrics and Neunatology'	13 th Edn.	B.B. Publications
16.	C.S. Dawn	'Text books of Gynaecology and contraception'	13 th Edn.	B.B. Publications
17.	J. Studd	'Progress in Obstetrics and Gynaecology	Latest Edn.	I.S.E. Publications
18.	Padubidri	'Text book of Obstetrics'	1 st Edn.	C.B.S. Publications
19.	Novak's	'Gynaecology'	12 th Edn.	Williams and Willkins Publications
20.	Dewhurst	'Obstetrics and Gynaecology'	5 th Edn.	Blackwell Science
21.	Speroff	'Clinical Gynaecologic Endocrinology and infertility'	6 th Edn.	Lippincot Publications
22.	Boney's	'Gynaecological surgery'	9 th Edn.	A.I.T.B.S. Publications
23.	Callen	'Ultrasonography'		C.B.S. Publications
24.	Desai	Infertility and sonography'		J.P. Publications
25.	R. Rajan	Reproductive endocrinology'		J.P. Publications
26.	Williams	'Endocrinology'		W.B.S.

				Publications
27.	Pall-P.G.	'Manual of operative laprascope'		Modern Publications
28.	J. Samuel	'Clinical sonography'		J.D.P. Publications
29.	Kistner's	'Gynaecology-Principles and practice'	6 th Edn.	Hercoat Brey's Asia Publications
30.	Macher and Moor	'Essentials of Obstetrics and Gynaecology'	3 rd Edn.	W.B. Sunder's Publications

Journals

1. Journal of FOGSI
2. Clinics of Obstetrics & Gynecology- North America
3. Fertility and Sterility
4. British Journal of Obstetrics & Gynecology
5. American Journal of Obstetrics & Gynecology
6. American association of gynecology laproscopy
7. Obstetrics & Gynecologic clinic
8. Current opinion in Obstetrics & Gynecology
9. Briggs update: Drugs in pregnancy & lactation.
10. Operative technique in gynecologic surgery

SRI SIDDHARTHA UNIVERSITY

M.S. Degree Examination – Model Question Paper

[Time: 3 Hours]

[Max. Marks: 100]

OBSTETRICS AND GYNAECOLOGY **BASIC MEDICAL SCIENCES – PAPER I**

Q.P. CODE :

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary. Answer all questions

LONG ESSAY

2 X 20 = 40 Marks

1. Describe the development of female internal genital organs. Discuss the clinical significance of various congenital malformations of the uterus
2. Discuss the physiology of initiation of labour. How do you diagnose and manage dysfunctional uterine labour?

SHORT ESSAY

6 X 10 = 60 Marks

3. Supports of pelvic organs and its clinical significance
4. Hormonal control of ovarian function
5. Carbohydrate metabolism in pregnancy
6. Contraception in lactating mothers
7. Borderline ovarian tumors
8. Human papilloma virus infection

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M.S. Degree Examination – Model Question Paper

[Time: 3 Hours]

[Max. Marks: 100]

OBSTETRICS AND GYNAECOLOGY

PAPER II-OBSTETRICS

Q.P. CODE:

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary. Answer all questions

LONG ESSAY

2 X 20 = 40 Marks

1. Discuss the differential diagnosis and management of a multi gravida presenting with ante partum haemorrhage at 34 weeks of gestation
2. Critically evaluate the indications, methods and risks of induction of labour

SHORT ESSAY

6 X 10 = 60 Marks

3. Postpartum collapse
4. Prevention of Rhesus isoimmunization
5. Suppression of lactation
6. Acute fatty liver of pregnancy
7. Malaria in pregnancy
8. Screening for gestational diabetes mellitus

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SRI SIDDHARTHA UNIVERSITY

M.S. Degree Examination – Model Question Paper

[Time: 3 Hours]

[Max. Marks: 100]

OBSTETRICS AND GYNAECOLOGY

PAPER III - GYNAECOLOGY

Q.P. CODE:

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary. Answer all questions

LONG ESSAY

2 X 20 = 40 Marks

1. Discuss the management of a 26 years old woman presenting with endometriosis and infertility
2. Discuss in detail the aetio-pathology, diagnosis and management of cervical intraepithelial neoplasia

SHORT ESSAY

6 X 10 = 60 Marks

3. Management of adnexal torsion
4. Precocious puberty
5. Chronic pelvic pain
6. Tumor markers in gynaecology
7. Pruritus vulvae
8. Endometrial thermal ablation

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M.S. Degree Examination – Model Question Paper

[Time: 3 Hours]

[Max. Marks: 100]

OBSTETRICS AND GYNAECOLOGY SOCIAL OBSTETRICS, FAMILY WELFARE AND PERINATOLOGY - PAPER IV

Q.P. CODE :

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary. Answer all questions

LONG ESSAY

2 X 20 = 40 Marks

1. Define MMR. What are the causes of MMR? Write in detail about the various government schemes to bring down MMR
2. Describe the various methods of postpartum contraception and its application

SHORT ESSAY

6 X 10 = 60 Marks

3. Neonatal jaundice
4. Complications of teenage pregnancy
5. Non scalpel vasectomy
6. Perineal tear in obstetrics
7. Baby feeding practices in a HIV positive mother
8. Bandl's ring

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