

National Board of Examinations

**REVISED CURRICULUM FOR COMPETENCY
BASED TRAINING OF DNB CANDIDATES**

**OBSTETRICS AND GYNAECOLOGY
2006**



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Preface

The National Board of Examination was established in 1975 with the primary objective of improving the quality of the Medical Education by elevating the level and establishing standards of post graduate examinations in modern medicine on all India basis. There are more than 450 N.B.E accredited institutions/ Hospitals , imparting DNB training programmes in 28 Broad specialties and 16 super specialties. Besides, there are Post-doctoral fellowship programmes in 14 specialties and Post-graduate dental programmes in 9 specialties. In order to have standardized and quality training in all the accredited hospitals, National Board of Examinations has a well structured curriculum. The curriculum is being revised periodically to incorporate newer topics and introduce more innovative training methods. The present curriculum has been revised by National Board of Examinations' experts and has details of the training objectives, schedule, methods, technical contents. There are lists of skills in various procedures/ surgical techniques which a DNB candidate must acquire during the training, reference and text books as well as the journals in the speciality. The curriculum also gives sample theory questions and common cases for practical skill assessment during training every six months in the form of concurrent assessment. The guidelines for thesis and maintenance of log book to record day to day activities carried out by the candidates are also given.

It is expected that the revised curriculum will be useful to the DNB consultants in organizing the DNB training programmes in their respective hospitals. The DNB candidates will also benefit from this document.

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Goal

A postgraduate student is required to acquire knowledge of Anatomy, Physiology, Pharmacology and Patho-physiology related to reproductive system and be competent to manage pathological states related to it so as to work as Senior Resident (Junior consultant) at the end of DNB training.

Objectives to be achieved by an individual at the end of 3 years of DNB training

- Provide quality maternal care in the diagnosis and management of Antenatal, Intra-natal & Post natal period of normal and abnormal pregnancy.
- Provide effective & adequate care to the obstetrical and early neonatal emergencies.
- Provide counseling and delivery of fertility regulation methods and perform medical termination of pregnancy.
- Organize and implement maternal components in the “National Health Programs”
- Develop adequate surgical skills to manage common obstetrical & gynecological problems. Applied basic sciences to Obstetrics & Gynaecology
- Medical genetics- Elementary genetics as applicable to Obstetrics
- Normal & abnormal pregnancy during Ante-natal, Intra-natal & post-natal period.
- Benign and malignant Gynaecological disorders.
- Gynaecological Endocrinology and infertility.
- Operative procedures including endoscopy (diagnostic & therapeutic) and its related complications and their application in the field of Obstetrics & Gynaecology.
- Common Medical & Surgical problems in association with Obstetrics & Gynaecology
- Sound knowledge of interpretation of various laboratory investigations and other diagnostic modalities in Obstetrics & Gynaecology
- Essentials of Pediatric and adolescent Gynaecology
- Care of Postmenopausal women and Geriatric Gynaecology
- Elementary knowledge of female Breast & its diseases.
- Vital statistics in Obstetrics & Gynecology.
- Anesthesiology related to Obstetrics & Gynaecology.
- Reproductive and Child Health, family welfare & reproductive tract infections
- STD and AIDS & GOVERNMENT OF INDIA perspective on women’s health related issues
- Medico legal aspects in Obstetrics & Gynaecology
- Asepsis, sterilization and disposal of medical waste
- Use of newer information technologies (computer & internet)

- Discuss the basic principles of anesthesiology and resuscitative measures.
- Properly maintain medical records and know the medico legal aspects in respect of Obstetrics & Gynecology.
- Keep abreast with advances in the field of Obstetrics & Gynecology.
- Plan educational programs in Obstetrics & Gynecology (with seniors) for medical & paramedical staff and also for the society.
- Be familiar with modern methods of training & teaching
- Demonstrate communication skills and compassionate attitude towards the patients.
- Be familiar with research methodologies

Tentative Schedule for three years of DNB Training

Emphasis should be self-directed learning, group discussions, case presentations and practical hands on learning. Student should be trained about proper history taking, clinical examination, advising/ ordering relevant investigations, their interpretation and instituting medical / surgical management, by posting the candidates in OPD, specialty clinics, wards, operation theaters, labour room, family planning clinics and other departments like neonatology, radiology, radiotherapy. The candidates must be trained to manage all emergency situations seen frequently.

The student should attend to the duties (routine and emergency), Out patient department, inpatients in the wards, Operation theater, labour rooms, write clinical notes regularly and maintain records. 1st Semester-working under supervision of senior resident & teaching faculty. 2nd & 3rd semester-carrying out minor operations under supervision & assisting in major operations . 4th semester-posting in allied specialities (4 months) 5th & 6th semester- independent duties in management of patient (including major operations under supervision).The details of the surgeries to be done during DNB training are given in annexure.

The posting of DNB candidates in allied subjects should be done in fourth semester for total 4 months as follows :

Neonatology - 2 weeks
 Anaesthesia - 2 weeks
 Surgery - 1 month
 Oncology - 1 month, (Surgical - 2 weeks, Medical -1 week, Radio therapy -1 week)
 Dermatology - 2 weeks
 Radiology - 2 weeks

Assessments/ Examinations

Concurrent examination/assessment

The purpose of the concurrent assessment is to give regular feed back to the DNB candidates about their performance and to prepare them for the final terminal examination by giving them exposure to the examination pattern. As a part of the concurrent evaluation, the DNB candidates will be assessed every six months by an independent local appraiser selected by National Board of Examinations. This would include theory examination (100 marks of three hours duration) containing 10 short structured question related to the topics covered during the preceding six months by the accredited hospital/institution.

The practical examination (300 marks) will include long case, short case, spots, ward round, viva voce on the topics covered during the period by the hospital/institution.

Final Examination

Theory papers -Four (each of 100 marks) as follows:

- Paper-I Applied Basic Sciences
- Paper-II Obstetrics including Social Obstetrics & diseases of the new born
- Paper III Gynaecology – including Gynae. pathology & Operative Gynaecology
- Paper-IV Other disciplines related to Obstetrics & Gynaecology and Contraception.

10 Short Answer questions (10 marks each)

Practical Examination:

Long & short cases and OSCE should be given to the students for history taking and examination. Spot case should be given to the candidate in the presence of the examiner/s, to be examined (including history taking by the candidate) and assessed by the examiners Viva Voce on-Instruments, Pathology specimens, Drugs & X-rays, Sonography etc. , Pelvis and Foetal skull, Instruments, Pathology specimens, Drugs & X-rays, sonography etc., Family Planning methods.

ANNEXURE- I, THEORY SYLLABUS

First Year

1. Basic Sciences

- Normal & abnormal development, structure and function of (Female & male) urogenital system and female breast
- Applied Anatomy of female genito-urinary system, abdomen, pelvis, pelvic floor, anterior abdominal wall, upper thigh inguinal ligament, inguinal canal, vulva, rectum and anal canal
- Physiology of spermatogenesis
- Endocrinology related to male and female reproduction (Neurotransmitters)
- Anatomy & physiology of urinary & lower gastrointestinal (Rectum/ anal canal) tract,
- Development, structure & function of placenta, umbilical cord & amniotic fluid
- Anatomical & physiological changes in female genital tract during pregnancy
- Anatomy of fetus, fetal growth & development, fetal physiology & fetal circulation.
- Physiological & Neuro-endocrine changes during puberty, adolescence, menstruation, ovulation, fertilisation, climacteric & menopause
- Physiological changes during pregnancy, including systemic changes in cardiovascular, hematological, renal, hepatic and other systems
- Biophysical and biochemical changes in uterus and cervix during pregnancy and labour
- Pharmacology of drugs used during pregnancy, labour, post partum period in reference to their absorption, distribution, excretion, (hepatic) metabolism, transfer across the placenta, effect of the drugs (used) on labour, on fetus, their excretion through breast milk
- Mechanism of action, excretion, metabolism of identified drugs used in the management of gynaecological disorders
- Role of hormones in Obstetrics & Gynaecology
- Markers in Obstetrics & Gynaecology – Non neoplastic and Neoplastic Diseases
- Pathophysiology of ovaries, fallopian tubes, uterus, cervix, vagina and external genitalia in healthy and diseased conditions.
- Normal and abnormal pathology of placenta, umbilical cord, amniotic fluid and fetus
- Normal and abnormal microbiology of genital tract . Bacterial, viral & parasitic infections responsible for maternal, fetal and gynaecological disorders.
- Humoral and cellular immunology in Obstetrics & Gynaecology
- Gametogenesis, fertilisation, implantation & early development of embryo

- Normal pregnancy, physiological changes during pregnancy, labour and puerperium.
- Immunology of pregnancy.
- Lactation.

2 Clinical Obstetrics

Antenatal Care-Prenatal care of normal pregnancy including examination, nutrition, immunization & follow up counseling.

Intrapartum Care

- Normal labour – mechanism & management.
- Partographic monitoring of progress of labour, recognition of abnormal labour and its appropriate management.
- Induction and augmentation of labour
- Maternal & fetal monitoring in normal & abnormal labour and its appropriate management
- Electronic foetal monitoring
-

3. New Born – Conduct of Normal delivery including 3rd stage

- Neonatal resuscitation
- Care on new born : Normal and high risk new born (including NICU care)
- Birth asphyxia
- Breast feeding practice ,counseling and importance of breast feeding.Problems in breast feeding and their management.

4. Clinical Gynaecology

- Epidemiology and etiopathogenesis of gynaecological disorders
- Diagnostic modalities and management of common benign and malignant gynaecological diseases (diseases of the genital tract):
- Fibroid uterus
- Endometriosis & adenomyosis
- Endometrial hyperplasia
- Genital prolapse (uterine & 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, Ca Breast.

5. Infertility– Evaluation and management

- History taking ,examination and investigations
- Male infertility
- Management of immunological factors of infertility
- Tubal Microsurgery
- Methods of ovulation induction
- Introductory knowledge of Assisted Reproductive Techniques (ART)

6. Reproductive tract infections prevention, diagnosis & treatment

- Sexually transmitted diseases
- Human Immunodeficiency virus
- Genital tuberculosis
- Other infections

7. Family Welfare & Demography

- Definition of demography and its importance in Obstetrics and Gynaecology
- Various methods of male and female contraception
- Knowledge of contraceptive techniques (including recent developments)
- Provide adequate services to service seekers of contraception including follow up.
- Medical termination of pregnancy : MTP act, its implementation, providing safe and adequate services.

7. Research and Dissertation

- Recognize, the research project, objective of study: design the study with appropriate statistical validity of the size of the sample
- Learn the use of library and review the literature.

Second Year

1. Clinical Obstetrics

- Identification and management of complications of pregnancy – abortions, ectopic pregnancy, gestational trophoblastic disease, hyperemesis gravidarum, multiple pregnancy, antepartum hemorrhage, pregnancy induced hypertension, preclampsia, eclampsia, other associated hypertensive disorders, anemia, Rh incompatibility, diabetes, heart disease, renal & hepatic diseases, preterm pregnancy and post term pregnancy, intrauterine fetal growth retardation.hydramnios, oligoamnios, premature rupture of membranes, recurrent pregnancy loss.

- Neurological, hematological, dermatological diseases, immunological disorders and other medical & surgical disorders/ problems associated with pregnancy,
- Diagnosis of contracted pelvis, Cephalo-pelvic disproportion and their management.

- Evaluation of fetal & 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 & its management.
- Infections in pregnancy (Bacterial, viral, fungal, protozoal)-Malaria, Toxoplasmosis, Rubella, Cytomegalovirus Herpes, HIV, Hepatic viral infections (B,C etc.), Sexually transmitted infections (STDs), Mother to fetus transmission of infections,
- Identification & management of fetal malpositions and malpresentations
- Management of pregnancies complicated by medical, surgical (with other specialities as required) & gynaecological diseases. Anemia, hematological disorders, Respiratory, Heart, Renal, Liver, skin diseases, Gastro Intestinal, Hypertensive, Autoimmune, Endocrine disorders, Associated Surgical Problems. Acute Abdomen (surgical emergencies – appendicitis & Gastrointestinal emergencies). Other associated surgical problems., Gynaecological disorders associated with pregnancy- congenital genital tract developmental anomalies, gynaepathologies- fibroid uterus, Carcinoma Cervix, genital prolapse etc. Hematological problems in obstetrics including coagulation disorders. Use of blood and blood components/ products.

2. Intrapartum Care

- Identification and management of intrapartum complications, Cord presentation, cord prolapse , abruptio placentae , complications of 3rd stage of labour- retained placenta, inversion of uterus, rupture of uterus, post partum hemorrhage. Management of primary & secondary post partum hemorrhage, Post-partum collapse, amniotic fluid embolism
- Identification & management of genital tract trauma- perineal tear, episiotomy complications
- Management of critically ill women

3. Post Partum

- Normal and abnormal puerperium- sepsis, thrombophlebitis, mastitis, breast abscess , psychosis, deep vein thrombosis

4. Operative Obstetrics

PG students must have performed reasonable number of routine procedures and assisted/ observed uncommon procedures.

- Decision-making, technique & management of complications
- Vaginal instrumental delivery, Caesarean section, Obstetric hysterectomy, destructive operations, manipulations (External cephalic and internal podalic version, manual removal of placenta etc.)
- Medical termination of pregnancy – safe abortions-selection of cases, technique & management of complications. MTP law.
- Maternal Child Health MCH programs, Social Obstetrics & Vital statistics, Recent advances in Obstetrics.

5. New Born

- Neonatal hyper-bilirubinemia investigations & management
- Birth trauma- detection & management
- Detection and management of fetal/ neonatal malformation
- Management of common neonatal problems

6. Clinical Gynaecology

- Diagnosis and surgical management of clinical conditions related to congenital malformations of genital tract. Reconstructive surgery in gynaecology.
- Intersex, ambiguous sex and chromosomal abnormalities.
- Reproductive endocrinology- Evaluation of Primary/ Secondary Amenorrhea, management of hyperprolactinemia, Hirsutism, Chronic an-ovulation, Polycystic Ovarian Disease, thyroid and other endocrine dysfunctions.
- Principles of radiotherapy and chemotherapy in gynaecological malignancies, Choice, schedule of administration & complications of such therapies.
- Rational approach in diagnosis and management of endocrine, abnormalities such as: menstrual abnormalities, amenorrhea (primary/ secondary), dysfunctional uterine bleeding, Polycystic ovarian disease, hyperprolactinemia (galactorrhea), hyperandrogenism, thyroid-pituitary-adrenal disorders
- Urological problems in gynaecology – diagnosis and management of - Urinary tract infection, Urogenital fistulae, Incontinence, Other Urological problems,
- Orthopaedic problems in gynaecology
- Menopause : management (Hormone replacement therapy) and prevention of its complications

- Endoscopy (Laparoscopy Hysteroscopy)
- Diagnostic & simple therapeutic procedures (PG students must be trained to do these procedures)
- Introduction to recent advances in operative procedures.

7. Operative Gynaecology

- Abdominal & vaginal hysterectomy
- Surgical procedures for genital prolapse
- Surgical treatment for fibromyoma
- Surgical treatment for endometriosis
- Surgical treatment for ovarian pathology (cysts)
- Surgical treatment for adnexal (tubal) pathology
- Surgical treatment for urinary & other fistulae, urinary incontinence

8. Family welfare planning & demography

- Statistics regarding maternal mortality, perinatal mortality/ morbidity, birth rate, fertility rate.
- Organizational and operational aspects of National health policies & programs in relation to population and family welfare including Reproductive & Child Health

9. Male infertility

- History taking, examination and investigation
- Causes and management of male infertility
- Introductory knowledge of indications and procedures of Assisted Reproductive Techniques in relation to male infertility problems.

10. Health of Adolescent Girls and Post Menopausal Women

- Recognize importance of good health of adolescent and postmenopausal women.
- Identification and management of health problems of postmenopausal women.
- Understanding and planning and intervention program of social, educational and health needs of adolescent girls and menopausal women.

11. Reproductive Tract and “HIV” Infection

- Epidemiology of Reproductive Tract Infection and HIV infection in Indian women of reproductive age group
- Cause, effect and management of these infections
- HIV infections in pregnancy, its effects and management.
- Relationship of reproductive tract infections & HIV with gynaecological disorders
- Planning and implementation of preventive strategies

Third Year

1. Medical Genetics

- Basic medical genetics including cytogenetics
- Pattern of inheritance
- Chromosomal abnormalities- types, incidence, diagnosis, management and recurrence risk.
- General principles of teratology
- Screening, counseling and prevention of developmental abnormalities.
- Birth defect- genetics, teratology and counseling.
- Prenatal diagnosis (of fetal problems & abnormalities) and treatment – Fetal therapy.

2. Operative Gynaecology

- Operative Endoscopy
- Recent advances in Operative gynaecology

3. Medicolegal aspects

- Knowledge and correct application of various acts and laws while practicing obstetrics and gynaecology, particularly MTP act and sterilization.
- Knowledge of importance of proper recording of facts about history, examination findings, investigation reports and treatment administered in all patients.
- Knowledge of steps recommended for examination and management of rape cases.
- Knowledge of steps to be taken in the event of death of a patient or a stillbirth

4. Environment and Health

- Concept of safe disposal of human body fluids and other materials
- Universal precautions to be taken in examining and carrying surgical procedures for the prevention of HIV and other diseases.
- Effect of environment of pregnancy outcome.

ANNEXURE-II, DETAILS OF THE SKILLS TO BE ACQUIRED DURING THE TRAINING PERIOD

S.no	Name of procedure	Number of procedure		
		As observer	As first assistant	Independently under supervision
	OBSTETRICS			
1.	Venepuncture			
2.	Amniotomy	10 (1st yr)		5(1 st yr) 15(2 nd yr) 20(3 rd yr)
3.	Conduct of normal Vaginal delivery	5 (1st yr)	10 (1st yr)	15/20/25
4.	Perineal Infiltration & Pudendal block	5 (1st yr)	10 (1st yr)	15/20/25
5.	Episiotomy	5 (1st yr)	10 (1st yr)	10/15/20
6.	Ventouse delivery	5 (1st yr)	5 (II nd yr)	5 (III yr)
7.	Forceps delivery	5 (1st yr)	5 (II nd yr)	2 (3 rd year)
8.	Management of Genital tract injuries	2	2	
9.	Exploration of Cervix	5 (1st yr)	5 (II nd yr)	5 (III yr)
10.	Lower Segment Caesarian Section	10 (1st yr)	10(2 nd)/20(3 rd yr)	10 (III yr)
11.	Manual Removal of Placenta	5		
12.	Breech vaginal delivery	5	5	
13.	External Cephalic Version	5		2
14.	Delivery of twins	5	5	
15.	Management of shock	5	5	5
16.	Management of Postpartal hemorrhage	5	5	5
17.	Cervical circlage	5	5	
	Amnio infusion	5		5
	FAMILY PLANNING			
18.	Intra Uterine Contraception Device InseReproductive Tract Infectionson/ removal	5	5	5/10/10
19.	Female sterilization Post Partum and Interval	5	5	2/5/5
20.	Suction & Evacuation	5	10	10
	GYNAECOLOGY			
21.	PAP'S Smear	5		10/20/30
22.	Wet smear examintion	5		10/10/10
23.	Post Coital Test	5		5/5/5
24.	Endometral biopsy	5		10/10/10
25.	Endometrial Aspiration	5		10/10/10
26.	Dilatation and	5		10/10/10

	Curettage/Fractional Curettege			
27	Cervical Biopsy	5		5/5/5
28	Cryo/ electrocoutery of cervix	5		5/5/5
29	Hystero salpingography	5		10/10/10
30	Diagnostic laparoscopy	5	5	2 (3 rd year)
31	Opening & closing of abdomen	5	5	-10/10
32	Operations for utero vaginal prolapse	5	10	-1/-2
33	Operations for Ovarian tumors	5	5	-1/-2
34	Operation for ectopic pregnancy	5	5	-1/-2
35	Vaginal hysterectomy	5	5	-1/-2
36	Abdominal hysterectomy	5	5	-1/-2
37	Myomectomy	2	2	
38	Repair of complete perineal tear			
39	Repair of cervical tear			
40	Caesarean hysterectomy			
41	Internal iliac ligation			
42	Uterine & Ovarian Artery ligation			
43	Destructive operations			
44	Reposition of inversion uterus			
45	Amnio centesis			
46	Venesection			
47	Colposcopy			
48	Loop Electro Surgical Excesion Procedure			
49	Tuboplasties			
50	Paracentesis			
51	Culdocentesis			
52	Endoscopic surgery			
53	Repair of genital fistulae			
54	Operations for urinaryincontinence			
55	Radical operations for gynaecological malignancies			
56	Vaginoplasty			

ANNEXURE –III, SAMPLE CASES FOR PRESENTATION AND DISCUSSION

LONG CASES

Obstetrics- Normal Term Pregnancy

- Pregnancy Induced Hypertension
- Diabetes
- Anaemia
- Heart Disease
- Antepartum Hemorrhage
- Jaundice
- Malpresentations
- Previous Caesarean section
- Bad Obstetrical History (Recurrent Preterm)/ (Recurrent abortions)
- Intrauterine growth restriction
- Post dated pregnancy
- Rh negative pregnancy
- Multiple pregnancy
- Hydramnios
- Intra Uterine Death(IUD)

Gynaecology

- Fibroid all types
- Abnormal Uterine Bleedings
- Malignancies
- Infertility
- Prolapse
- Post Menopausal Bleedings(PMB)
- Ovarian tumour
- Fistulae
- Adnexal masses
- Amenorrhoea – primary/secondary

SHORT CASES

Obstetrics

- Abortions
- Ectopic pregnancy (post operative)
- Cervical incompetence
- Puerperal
- Post LSCS (Caesarean Section)
- Early pregnancy
- Molar Pregnancy

Gynaecology

- Vaginal discharge
- Pruritis vulvae
- Cervical erosion
- 3^o Perineal tear
- Vulvar ulcer
- White lesions of vulva
- Obesity / Hirsutism

ANNEXURE-IV, SAMPLE QUESTIONS FOR SIX MONTHLY ASSESSMENTS

- Vascular supply & lymphatic drainage of female genital organs
- Anatomy of ureter
- Development of placenta
- Constitution & functions of amniotic fluid
- Fetal circulation
- Physiology of menstruation
- Diagnosis of ovulation
- Normal vaginal flora
- Iron metabolism during pregnancy
- Physiology of third stage of labour
- Missed Intrauterine contraceptive device
- Partographic assessment of labour
- Conservative management of ectopic pregnancy
- Management of 3rd stage of labour
- Management of Premature rupture of membranes at 32 weeks of gestation
- 30 years Primigravida is admitted at 30 weeks pregnancy with painless episode of bleeding per vagina, discuss the management
- Complications of Rh isoimmunization
- Feto maternal hemorrhage
- Maternal to fetal transmission of HIV
- Antepartum management of HIV patient
- Methods of ovulation induction
- Screening of carcinoma cervix
- Management of post menopausal bleeding
- Management of breech presentation at 38 week
- Management of early pregnancy with Intrauterine Contraceptive Device
- Management of patient antepartum haemorrhage at 36 wks of pregnancy
- Medical abortion
- Emergency contraception
- Incompetent Os
- Management of atonic postpartal hemorrhage
- USG in first trimester
- Investigations of a female with history of recurrent 1st trimester pregnancy losses
- Conservative surgical management of prolapse uterus
- Work up of primary amenorrhea at 18 years.
- Recent advances in management of IUGR
- Screening for Down's Syndrome
- Define deep transverse arrest, discuss its management
- Arrest of after coming head of breech
- Ventouse delivery
- Surgical management of postpartum hemorrhage
- Antenatal fetal surveillance

- Postcoital bleeding – Management
- Early USG markers of chromosomal congenital malformations
- Gestational trophoblastic disease
- Recent advances in hormonal contraceptives
- Staging laparotomy for ovarian tumour
- Male contraception
- Hemoglobinopathies
- Injectable contraceptives
- Gestational diabetes mellitus
- Newer oral contraceptive pills
- Management of puberty menorrhagia
- Indications and complications of hysteroscopy
- Hormone releasing devices
- Polycystic Ovarian Disease
- Hirsutism
- Short notes on Selective Estrogen Receptive Modulators (SERMs)
- Recent concepts on Hormone Replacement Therapy
- Ureteric injuries
- Work up of a 45 year old woman with urinary incontinence
- Pre Natal Diagnostic Test Act (PNDT)

ANNEXURE- V, BOOKS AND JOURNALS WHICH THE CANDIDATE MUST READ

OBSTETRICS

- William's Obstetrics
- Turnbull's Obstetrics
- Fernando Arias- Practical guide to High Risk pregnancy & delivery
- De Sweit- Medical Disorders in pregnancy
- D.K. James- High risk pregnancy management options

GYNAECOLOGY

- Telinde's operative Gynecology
- Novak's – Textbook of Gynaecology
- Speroff Leon's – Clinical Gynaecology Endocrinology & Infertility
- Jeffcoate's Principles of Gynaecology
- Studd- Progress in Obstetrics & Gynaecology
- Bonner- Recent advances in Obstetrics & Gynaecology

LIST OF BOOKS- MUST REFER

- Danforth's Obstetrics & Gynaecology
- Dewhurst Text book of Obstetrics & Gyneacology for post graduates
- Shaw's text book of Operative Gynaecology
- Shaw's, Stanton & Souter Gynaecology
- Kistner's Gynaecology
- Coppelson Gynaecological Oncology

LIST OF JOURNALS- INDIAN

- Journal of Obstetrics & Gynaecology of India

LIST OF JOURNALS- FOREIGN

- Obstetrics & Gynaecology Survey
- Obstetrics & Gynaecology Clinics of North America
- Clinical Obstetrics & Gynaecology
- British journal of Obstetrics & Gynaecology
- Contraception
- International Journal Obstetrics & Gynaecology

ANNEXURE-VI, GUIDELINES FOR WRITING THESIS/DISSERTATION

Research shall form an integral part of the education programme of all candidates registered for Diploma of NB degrees of the Board. The Basic aim of requiring the candidates to write a thesis/dissertation is to familiarize him/her with research methodology. The members of the faculty guiding the thesis/dissertation work for the candidate shall ensure that the subject matter selected for the thesis/dissertation is **feasible, economical and original**.

Guidelines

- I. The thesis may be normally restricted to the size to 100 pages. To achieve this, following points may be kept in view;
 - (i) Only contemporary and relevant literature may be reviewed.
 - (ii) The techniques may not be described in detail unless any modification/innovations of the standard techniques are used and reference may be given.
 - (iii) Illustrative material may be restricted.
 - (iv) Since most of the difficulties faced by the residents relate to the work in clinical subject or clinically oriented laboratory subjects the following steps are suggested:
 - For prospective study, as far as possible, the number of cases should be such that adequate material, judged from the hospital attendance, will be available and the candidate will be able to collect the case material within a period of 6-12 months so that he/she is in a position to complete the work within the stipulated time.
 - The objectives of the study should be well defined.
 - As far as possible, only clinical or laboratory data of investigations of patients or such other material easily accessible in the existing facilities should be used for the study.
 - Technical assistance, wherever necessary, may be provided by the department concerned. The resident of one speciality taking up some problem related to some other speciality should have some basic knowledge about the subject and he/she should be able to perform the investigations independently, wherever some specialised laboratory investigations are required a co-guide may be co-opted from the concerned investigative department, the quantum of laboratory work to be carried out by the candidate should be decided by the guide and co-guide by mutual consultation.
 - The Clinical residents may not ordinarily be expected to undertake experimental work or clinical work involving new techniques, not hitherto perfected or the use of chemicals or radio isotopes not readily available. They should however, be free to enlarge the scope of their studies or undertake experimental work on their own initiative but all such studies should be feasible within the existing facilities.

- The residents should be able to use freely the surgical pathology/autopsy data if it is restricted to diagnosis only, if however, detailed historic data are required the resident will have to study the cases himself with the help of the guide/co-guide. The same will apply in case of clinical data.
- Statistical methods used for analysis should be described in detail.

Rules for Submission of Thesis/ Dissertation by candidates for DNB

- (i) The protocol of Thesis/ Dissertation should be submitted to the office of the NBE through head of the institutions within three (3) months of joining the training in Medical college/university/DNB accredited institution.
- (ii) No correspondence will be made in regard to acceptance of the protocol except only in the case of rejected protocols for which individual will be informed by office through mail/website.
- (iii) The guide will be a recognized PG teacher in Medical college or university or NBE Accredited institutions. The teacher should have the experience of 5 years in speciality after obtaining the post graduate degree. The certificate of PG teaching and being Guide recognized by University/NBE must be enclosed alongwith thesis/dissertation. The Guide can guide one MD/MS candidate and one university diploma candidate desirous of taking the DNB examination, or one direct NBE candidate. Total number of candidates should be two including all sources.
- (iv) Candidates who will be appearing in the subject under the heading Super Speciality (like Cardiology & Cardio Thoracic Surgery etc.) need not write their thesis/dissertation if they have already written their thesis during their MD/MS/NBE examinations. However they have to submit a proof in support of their having written thesis during their MD/MS examination.
- (v) If the candidates appearing in the broad specialities have already written their thesis in the MD/MS examination, they need not submit the thesis/dissertation. However they are required to submit a copy of the letter accepting the thesis by the University.
- (vi) If thesis is rejected or needs to be modified for acceptance, the Board will return it to the candidate with suggestion of assessors in writing for modification. The result of such candidate will be kept pending till the thesis is modified or rewritten, accordingly as the case may be and accepted by the assessors of the Board.
- (vi) If any unethical practice is detected in work of the Thesis, the same is liable to be rejected. Such candidates are also liable to face disciplinary action as may be decided by the Board.
- (vii) The thesis is to be submitted 6 MONTHS before the commencement of the DNB examination. Theory result of the candidates whose thesis/dissertation are accepted by the Board will be declared.

Guidelines for Writing of Thesis/Dissertation

Title - Should be brief, clear and focus on the relevance of the topic.

Introduction – Should state the purpose of study, mention lacunae in current knowledge and enunciate the Hypothesis, if any.

Objectives of the study

Review of Literature – Should be relevant, complete and current to date.

Material and Methods- Should include the type of study (prospective, retrospective, controlled double blind) details of material & experimental design procedure used for data collection & statistical methods employed; statement of limitations ethical issues involved.

Observations– Should be Organized in readily identifiable sections Having correct analysis of data be presented in appropriate charts, tables, graphs & diagram etc. These should be statistically interpreted.

Discussion- Observations of the study should be discussed and compared with other research studies. The discussion should highlight original findings and should also include suggestion for future.

Summary and Conclusion

Bibliography - Should be correctly arranged in Vancouver pattern.

Appendix—All tools used for data collection such as questionnaire, interview schedules, observation check lists etc should be put in the annexure.

ANNEXURE-VI, GUIDELINES FOR LOCAL APPRAISERS

**Ref. National Board of Examinations/ Monitoring DNB trg2006
Dated 23.6.2006**

Sir/Madam,

Thank you for agreeing to act as appraiser for the subject _____ at the

You are hereby requested to carry out the followings:

- i. Prepare one paper containing ten short questions in the areas covered by the hospital/ institution in the last six months.**
- ii. Conduct the theory examination for the candidates in the subject in the hospital.**
- iii. Review the thesis progress and log book records for each candidate.**
- iv. Conduct practical examination for the DNB candidates in the discipline.**
- v. Appraise the infrastructure and facilities in the hospital in the concerned subject as per the enclosed format.**
- vi. Send the report in the enclosed format to The Executive Director, National Board of Examinations, Ansari Nagar, Ring Road, New Delhi-110029.**
- vii. Give suggestion for improving the DNB training and appraisal.**

You are requested to contact _____ of the hospital _____ at Phone No. _____

You will be paid the honorarium for these activities by the concerned hospital as per the enclosed norm.

Thank you for your co-operation and support.

Yours sincerely

(A.K. Sood)

Copy to

Director/DNB Coordinator should make the necessary arrangements to conduct appraisal by the 31 July 2006.



National Board of Examinations Guidelines for local Appraisers

- 1. NBE is pleased to suggest your name as local appraiser. The purpose of introducing six monthly appraisals of NBE accredited hospitals/institutions is to further improve the quality of training, assess the training infrastructure for the DNB candidates and also assist the local institutions to develop in to a center of academic excellence. This would further add value to the services being rendered in these accredited hospitals/institutions. Please do not think that this assessment has negative connotation. Please plan your appraisal in such a way as to minimally affect the routine working of the department.**

- 2. The Board expects the local appraiser to be a post graduate in the speciality with teaching and research experience. He/She should have enough time and expertise to carry out the following activities in the allotted hospitals/Institutions:**
 - 2.1 He/she should participate in thesis protocol/progress presentation & discussion; assist the DNB candidates in their thesis work by giving them suggestions and monitoring their progress. He/she should give specific remarks to improve the Thesis work after reviewing the objectives, methodology (sample size, sampling technique, data collection tools etc.), data analysis plan and statistical tests, results and discussion plan etc. of thesis of each candidate. These remarks should also be communicated in writing to the supervisor and the concerned candidate by the appraiser and a copy be sent to National Board of Examinations.**

 - 2.2. He /she is expected to examine the log book maintained by the candidates and give specific remarks to improve the log book maintenance after reviewing the contents of the log book (name of procedure, details of the case, salient findings, remarks of the supervisor for the improvement of the candidate etc). These remarks should also be communicated in writing to the supervisor and the concerned candidate by the appraiser and a copy be sent to National Board of Examinations.**

 - 2.3 He/ should prepare question paper containing ten short structured questions in the speciality on the topics covered during the preceding six months and evaluate the**

answer sheets. He/she will maintain total confidentiality in these activities. The arrangements for six monthly theory and practical examination will be made by local accredited hospitals/institutions.

- 2.3. He/she will formally conduct practical examination (On the topics/areas covered in preceding six months). The practical will have long case, short cases; ward round, spots and viva voce as per the DNB format.
- 2.4. He/she will communicate the result of assessment to the concerned candidates along with detailed feed back on their performance. He/she will give detailed suggestions to each candidate in writing for improving his/her performance. He/she will act as counselor and give specific remarks for improving the overall performance level of the candidate. These remarks should also be communicated in writing to the supervisor and the concerned candidate by the appraiser and a copy be sent to National Board of Examinations.
- 2.5. He/she will prepare the Examination worksheet for each candidate and submit the same to the concerned hospital for records with a copy of the same to the National Board of Examinations.
- 2.6. He/she will submit the report to the Executive Director, NBE, on the format (enclosed herewith).
- 2.7. He/she will also send six monthly report on the infrastructure, patient load and manpower in the concerned speciality of the accredited hospital, to Executive Director, National Board of Examinations, Ring Road, Ansari Nagar, New Delhi-110029.

3. Remuneration/honorarium to the Appraisers

NBE recommends that suitable honorarium be given to the local appraisers by the concerned accredited hospital/institution, considering the activities performed and number of DNB candidates in the speciality. The recommended minimal amount be given as follows:

- 3.1. Assessment of Infrastructure and facilities in the hospital/institutions in the speciality = Rs. 500/-.**
- 3.2. Participation in thesis protocol presentation and discussion = Rs. 500/-per candidate.**
- 3.3. Development of theory paper = Rs. 500/-.**
- 3.4. Assessment of theory paper(s) = Rs. 500/-**
- 3.5. Holding of practical examination = Rs. 1000/- per candidate.**

This expenditure will be met out of the fee collected from the candidates.



National Board of Examinations
(Ministry of Health & Family Welfare, Govt. of India)
Ansari Nagar, Ring Road, New Delhi-110029.
Tel.No. 011- 26589119, 26589517, 26589656
Website : www.natboard.nic.in

**PROFORMA FOR INFRASTRUCTURE AND DNB
CANDIDATES' PERFORMANCE ASSESSMENT BY APPRAISER
(PLEASE FILL SEPARATE FORM FOR EACH DNB DISCIPLINE)**

01.	Name of the Hospital, Address, Telephone number, Fax number and e-mail				
02.	Name of the Department offering DNB				
03.	No. of beds in the speciality	Total	General (Free)*	Paying	Subsidized
04.	Number of indoor admission during the last six months	Total	General (Free)*	Paying	Subsidized

* Free – which recovers the cost only and are available for training of DNB trainees.

05. Facilities for supportive services	
Subject	Please list the type and number of tests done in the reference period of last one month
Pathology	
Biochemistry	

Microbiology

Radiology

Blood Bank

Any other

06. Physical facilities :-

Please list the facilities related to the specialty present in the department

07.	Library facilities Budget spent on library in last six months.	
	Total Number of books in the specialty with latest editions	
	Number of journals in the specialty Names of Indian journals Names of Foreign journals <u>Internet facilities and number of computers available for candidates</u> <u>Whether the hospital has installed reception equipment for satellite reception of CME programmes, Yes/ No, If no the reasons</u>	

08.	Consultants	Details of PG Qualification	Total experience after PG
	Name of Senior Consultants		
	Name of Junior Consultants		
	Name of Whole time Sr. Residents		

Please attach a copy of salary/ remuneration slips for the last six months.

09.	Track record of the candidates for the last three years : (in the specialty)				
	Year	Registered	Appeared	Passed	Left (with reason)

10. Please attach the details(such as the topic covered, date, the resource persons etc.) of various academic activities carried out by the department like -

- i. Guest lectures**
- ii. Case presentations and discussions**
- iii. Clinical conferences**
- iv. Seminars**
- v. Teaching sessions/ lectures for candidates**
- vi. Other activity specify**

11. Any other information

**FORMAT FOR ASSESSOR FOR DOING ASSESSMENT OF THE DNB CANDIDATES AT THE
END OF SIX MONTHS
FROM _____ TO _____**

Name and registration number of the candidates	Score in Theory examination held at the end of six months	Score in Practical examination held at the end of six months	Remarks of the assessor for improving the overall performance level of the candidate in the examination, like how to improve attempting theory and practical. These remarks should also be communicated in writing to the supervisor and the concerned candidate by the appraiser and a copy be sent to National Board of Examinations

Thesis work assessment

Name and registration number of the candidates	Specific remarks of the assessor to improve the Thesis work after reviewing the objectives, methodology (sample size, sampling technique, data collection tools etc.), data analysis plan and statistical tests, results and discussion plan etc. of thesis of each candidate. These remarks should also be communicated in writing to the supervisor and the concerned candidate by the appraiser and a copy be sent to National Board of Examinations

Log Book Assessment

Name and registration number of the candidates	Specific remarks of the assessor to improve the log book maintenance after reviewing the contents of the log book (name of procedure, details of the case, salient findings, remarks of the supervisor for the improvement of the candidate etc. These remarks should also be communicated in writing to the supervisor and the concerned candidate by the appraiser and a copy be sent to National Board of Examinations

NATIONAL BOARD OF EXAMINATION

WORK- SHEET FOR ASSESSMENT OF CANDIDATE BY LOCAL APPRAISER

Date: _____

Name & Address of Hospital _____

Name of the candidate and registration No. _____

Training Year of the candidate - _____

First/ second/ Final

Name of Appraiser _____

I Clinical Examination

Case	Agreed Diagnosis	Max. Marks	Marks Awarded				Total Marks	
			History	Clinical Examination	Diagnosis	Management	In words	In Figure
Long case -I		60						
Short case -I		40						
Short case -II		40						
Short case-III		40						
Total		180						

II. Ward Round M. Marks = 40	Marks words	in	Awarded figure	in	Sub Total I + II (Max. Marks = 220)	
					In words	In figure

III. Viva voce Max. Marks = 80

Marks	Pathology	X-rays	Instrument Orthotics prosthetic	Operative surgery	Total
Maximum					
Marks Awarded (In words)					
Marks Awarded (In figure)					

IV. Grand Total (Sum of I+II+III) Max. Marks = 300

Marks Awarded in words

Marks Awarded in figure

V. Result _____

VI. Specific description of the strong points in case of pass candidate and of weak points in case of failed candidate. Please list out the specific details which need to be communicated to the candidate to help him improve.

VII. Examiner's Name & Signature _____

National Board of Examinations, Ansari Nagar, Ring Road

New Delhi-110029

**FEEDBACK FORMAT FROM DNB CANDIDATES UNDERGOING TRAINING IN THE
HOSPITAL**

Instructions to the DNB candidate-This feedback format is meant for knowing your views and suggestions for improving DNB training programme in your hospital. You may not reveal your identify on the format. The information given by you will be used for improving your training. Please send this form directly to the Executive Director, National Board of Examinations. You can also down load this form from the National Board of Examinations website www.natboard.nic.in and email the form to nbefellow@yahoo.com

I. Name of the Hospital and Address

II. Name of the department

III. Please respond to the following questions related to your DNB training in past six months

3.1	Have you refereed to the DNB curriculum for your specialty in the last six months, if yes how many times ?	
3.2	How many times you have consulted the DNB coordinator in your hospital in the last six months?	
3.3	How many seminars you have attended in the last six months?	
3.4	How many cases you have presented to your consultant(s) in last six months?	
3.5	How many times you have attended the formal lectures covering various aspects of your speciality curriculum?	
3.6	How many guest lectures have been held in your speciality in the last six months in your hospital?	
3.7	How many times you have used internet for your studies in your hospital in the last six months?	
3.8	How many times your thesis progress has been reviewed by your thesis guides/ external appraiser in the last six months?	

- 3.9. Please mention the names of any three standard text books in your speciality ` which are available in the library of your hospital and you have referred to them in the last six months-**
- 3.10. Please mention the names of any one National and any one International journal which you have referred to in your hospital library in the last six months-**
- 3.11. How many clinical procedures you have done under supervision in last six months
Please mention names and number of any three of them**
- 3.12. How many clinical procedures you have done independently in last six months
Please mention names and number of any three of them.**
- 3.13. Please give five suggestions to improve your training in your speciality**

ANNEXURE- VII, FORMAT FOR LOG BOOK

Instructions for the supervisor

P.G. Training Programme - The post graduate programme broadly should include lecture/demonstration on applied basic sciences, bed side clinics, case presentations. Faculty lectures, symposia/seminar journal clubs, biopsy, radiology discussions and graded clinical responsibility.

Evaluation - It is essential that the trainee maintains a detailed account of the work done by him. The record book will in addition remind the trainee of what he should observe, learn and perform in a programmed and phased manner during the course of training. It is hoped that this record will stimulate the trainee towards greater effort in areas where he is below par and also record his progress. It forms the basis for assessment and evaluation of the trainees progress. Some of the possible criteria on the basis of which a trainee could be evaluated are - soundness of knowledge, application & judgment, keenness to learn, punctuality and promptness, initiative, reliability, clinical skill, behavior with patients, attitudes towards patient's relatives, colleagues, seniors and other staff, ability to express

Depending on the qualities and the level of attainments a candidates could be considered for appraisal, on the basis, for example, of the following 5 letter grading system.

A	Excellent	Above	75%	B	Good	60% -	65%
C	Satisfactory	50%-	60%	D	Poor	30% -	50%
E	Bad	Below	30%				

Besides the grading as indicated above, each student should also be given a formal feed back on his/her weak points and how to overcome his/her deficiencies.

ALL THE CANDIDATES MUST WRITE THE LOG BOOK IN DETAILS WITH REMARKS FROM THE SUPERVISORS AND THESE ENTRIES MUST BE CHECKED BY THE LOCAL APPRAISERS EVERY SIX MONTHS.

1. Name of Trainee : _____

2. Name of Hospital/Institution : _____

3. Address : _____

4. Specialty : _____

5. Name of Supervising Specialist : _____

6. Name of Medical
Director/Superintendent : _____

Date : _____

Signature of Supervising Specialist

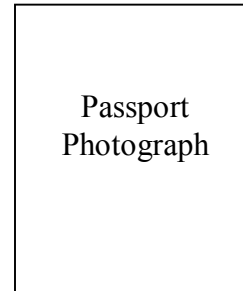
Name (Block Letters) :

Permanent Address :

Date of Birth :

Fathers Name & Address :

Education :



MBBS

Specimen Signature

Name of the College	Date joining	of	Date passing	of	No. of attempts	Prizes
---------------------	--------------	----	--------------	----	-----------------	--------

House-job

Subject	Date joining	of	Date of leaving	of	Period
---------	--------------	----	-----------------	----	--------

Primary Diplomat of N.B.

Subject	Date of Passing	No. of Attempts
---------	-----------------	-----------------

Final Diplomat of N.B.

Subject	Date of joining
---------	-----------------

Posting schedule

S. No.	Specialty	From	To	Period
--------	-----------	------	----	--------

Lectures

S. No.	Date	Topic and name of the resource person
--------	------	---------------------------------------

Seminars

S. No.	Date	Topic and name of the facilitators	Evaluation
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Journal Clubs

S. No.	Date	Topic and name of the facilitators	Evaluation
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Clinical Procedures/Operations Performed

S. No.	Date	Details of the patients and the procedures/Operations performed; names of the supervisors

Clinical Procedures/Operations Assisted

S. No.	Date	Details of the patients and of the procedures/Operations performed along with the names of the supervisors

Presentations

S. No.	Date	Details of the Case	Names of the consultants/resource persons	Evaluation

Emergencies

S. No.	Date	Details of the patients and management of emergency cases

Panel Discussions

(A) Radiology

S. No.	Date	Details of the case discussed	Names of panelists

(b) Biopsy

S. No.	Date	Details of the case discussed	Names of panelists

(C) Death review

S. No.	Date	Details of the case discussed and names of the resource persons