

National Board of Examinations
**REVISED CURRICULUM FOR COMPETENCY
BASED TRAINING OF DNB CANDIDATES**

HOSPITAL & HEALTH ADMINISTRATION

2006



National Board of Examinations
(Ministry of Health & Family Welfare, Govt. of India)
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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.

Contents

Goals

Objectives

Tentative schedule for training

Thesis

Methods of training

Concurrent assessment and final examination

Annexure

Annexure-I, Syllabus

Annexure-II, Details of the skills to be acquired during the training period

Annexure-III, Sample cases for presentation and discussion

Annexure-IV, Sample questions for concurrent assessment

Annexure-V, Suggested list of books and journals

Annexure-VI, Guidelines for writing thesis

Annexure-VII, Guidelines for local appraisers for six monthly assessment

Annexure-VIII, Format for log book

Goal

The candidate after 3 years of DNB training should acquire the competencies so that he/she is able to carry out the job functions of a Senior Candidates with Junior Consultant in the specialty.

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

Management-

- To describe the evolution & management concepts over the years and characteristics of management
- To explain principles and functions of management
- To describe the importance of planning in management and to explain the mechanics of planning and the process of decision-making.
- To explain nature and process of organizing and the underlying factors influencing organizational efforts
- To describe the organization of an office in a health unit/hospital. Explain the principles & procedures of official communication.
- To familiarize with computers
- To explain the meaning and purpose of communication. To explain the process of organizational communication and ways to make it effective
- To emphasize the importance of human resource in a hospital and to know in detail about the function of personnel management
- To describe the behavior of people in their work environment and its relation in team building for achieving organizational goals
- To describe the issues & scope of financial management & it's utility as an indispensable part of administration & quality control.
- To help, learn the scientific methods, materials and equipment planning, procuring, storing and dispensing including maintenance
- To emphasise the need for Risk Management & need for occupational safety Patients Safety.
- To describe about the industrial relations and its influence on the staff behaviour
- To describe the policy covering wage and salary administration, to dispose of the grievance fairly and equitable
- To study the need of management and information together forming a system. Integration of different aspects of MIS Preparation of Information system Manual
- To describe the quantitative methods and modern management techniques as applicable in health care setting as a tool to system development and better managerial control.
- To describe the market forces, which determine the services, rendered by the organization.
- To describe the role of marketing in health care industry, its importance in quality management & organizational development.

Health care and health administration

- To provide a history and development of medical services in India over the years
- To describe the basis of Health need, analyse the relation of demand & supply.
- To study the importance of society towards positive health & how it contributes to diseases.
- To emphasise the concept of health & factors responsible for disease causation, its prevention & estimation of disease load in the community.
- To describe the scientific method of conducting research.
- To create an awareness about the health policy in India, its targets and achievements.
- To describe the role of hospitals as a supportive & referral services to the national goal.
- NRHM
- To study the distribution of diseases in the community & the role of hospital in its prevention.
- To describe the role of statistics in the estimation of burden of disease & the methods applicable to calculate the same.
- To describe the various indicators of health, importance of health statistics in future planning for health care services & describe health information system in India
- To describe the background and health care delivery system in India
- To study the economics & its relation to health status of a nation.
- To study the science of demography and its role in population policy of India
- To give an idea about the background objectives, action plan, targets, operations, achievements and constraints of various National Health Programmes
- To discuss the importance of effective health information system & health education towards prevention and positive health.
- To conceptualize the role of health agencies and the international health regulation
- To outline the peculiarities of health care institutions, factors influencing hospital care and role of hospital administration in provisioning of good patient care. Special problems of administration of a teaching hospital, voluntary hospital, district hospital, PHC, nursing home etc.

Planning and Hospital Administration

- To give an idea about hospital and its role in health care delivery system.
- To review the history of hospitals; role of political and economic factors in the growth of hospitals and classification of hospitals.
- To study the role of nursing administration in health care delivery.
- To introduce the system concept and to outline the functional organization of a hospital
- To define human relations, its importance in a hospital organization and methods adopted to resolve conflict through human relation approach.
- To highlight the responsibilities of the hospital to the general
- To describe the various factors which can affect the working of employees in hospital to improve their output.
- To describe the concept of quality and its relation to health care scenario, its importance as regards patient satisfaction and marketing of services provided.
- To visualize into the future the needs & expectation of the community from the hospitals.
- To create awareness about the changing requirements of health service vis-à-vis hospital design, which should necessarily follow the functional, needs.
- To describe all aspects of planning and commissioning of different types of hospital including speciality hospitals
- To describe the process of making a project & its implementation.

Administration of clinical & non-clinical services

- To consider various planning and operational aspects like importance, function, local area and space, organization staffing pattern, utilization and work load, record, equipments and supplied requirements and standards and evaluation of each services.
- To consider various planning & operational aspects like importance, function, local area and space, organization staffing pattern, utilization and work load, records, equipments and supplies requirements and standards and evaluation of each services
- To consider various aspects of planning operating and evaluation of different utility services in hospitals.
- To explain the laws and regulations applicable to hospitals and hospital employees
- To study the medico legal aspects of practice of Medicine in hospital setting.
- To create an awareness about the hazards of operating a Hospital and the responsibility of the hospital for their management.
- To review major types of hospital hazards
- To describe the significance of Biomedical waste and its proper disposal
- Definition of Disaster – To learn to identify and prepare a hospital disaster manual.
- To learn about the equipment management process and its various components and their roles in hospital system.

- To learn to establish equipment management procedure for a hospital as well as Condemnation Procedures.

Tentative Schedule for three years of DNB Training

Placement in the hospital with different units such as Medical Superintendent office, Stores, Dietary, Record section, OPD, ICU, OT, Blood bank, Lab, Wards etc for learning hospital administration issues. For the Health administration the candidates should be placed with the district health officers, Primary Health Centres, Community Health Centres, communities etc. through the community out reach activities of the hospitals/ institutions

The following learning methods may be used for the teaching of the DNB trainees :

1. Journal clubs : 2 hrs duration – Paper presentation/discussion-once per week (Afternoon).
2. Seminars : One seminar every week of one hour duration (morning).
3. Lecture/discussions : Lectures on newer topics by Faculty, in place of seminar/as per need.
4. Case presentation for discussion before a faculty and discussion made pertaining to its management.

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

PAPER I	Comprehensive Health Care: Planning, Administration and Evaluations
PAPER II	Medical Care Administration including Hospital Administration
PAPER III	Advances in Health Administration and Hospital Administration including Modern Management Techniques
PAPER IV	The Community structure: Organization, Functions & Needs. Human Growth & Development in Community Health Promotion. Disease Control: Health Planning & Management

10 Short Answer questions (10 marks each)

Practical Examination:

Long & short cases and spots should be given to the students.

ANNEXURE- I, THEORY SYLLABUS

General management

Sl	Topic	Contents
1.	Development of Management concept	<ul style="list-style-type: none">● History and growth of management science● Traditional vs. modern management● Evolution of management theory● Management as profession● Process of management
2.	Management function & tools	<ul style="list-style-type: none">● Management levels and skills● Functions & Principles of management● Challenges to manager● System Approach
3.	Fundamentals of planning and decision making-	<ul style="list-style-type: none">● Steps in planning● Nature and process of managerial decision making
4.	Organisation structure and function	<ul style="list-style-type: none">● Organisational design and structure● Matching structure and strategy● Functional organization● Cultural aspects of power● Line and staff authority● Delegation/Decentralization
5.	Office procedure and Disciplinary proceedings	<ul style="list-style-type: none">● Definition of Office● Drafting official letters● Office procedures● Service rules & procedure● Conduct rules● Disciplinary proceedings
6.	Basics of Computer	<ul style="list-style-type: none">● Components of computer● Basic concepts about computer software● Working knowledge of commonly used computer programmes and application in hospitals
7.	Communication	<ul style="list-style-type: none">● Basic concepts● Types of communication● Barriers of communication● Principles of good communication● Communication in the management of Health Care Institution● Communication with the

- media
- 8. Personnel Management & Human Resource Development
 - Organisation culture
 - Definition & Importance
 - Difference between personnel management and human resource development
 - Work study & Method study
 - Manpower planning
 - Recruitment & selection
 - Job analysis
 - Job description
 - Job evaluation
 - Job enrichment
 - Training & development
 - Performance Appraisal
 - Grievance Redresal
- 9. Organisational Behavior and Group Dynamics
 - Basics of sociology, anthropology, Psychology
 - Characteristics of workgroups
 - OB labs
 - Dynamics of organizational behavior
 - Motivation & Leadership
 - Conflict management
 - Transactional analysis
 - Team building
- 10. Financial Management
 - Basics of Financial Management
 - Issues and scope of financial management
 - Basics of Management Accounting
 - Elements of cost, costing & cost accounting, P/L Statement
 - Methods of costing of health services
 - Modern methods of costing
 - Hospital Services pricing
 - Break even analysis
 - Budgeting
 - Resource mobilization
 - Cost containment
 - Balance Sheet
 - Tax laws
Income tax, VAT Excise duty
- 11. Material Management
 - Importance of Material

- Management
- Inventory control – meaning, scope, definition
- Purchase cycle
- Tender System
- Materials Planning
- Inventory analysis
- Economic order quantity, Safety stock, Lead time
- Receipt and Inspection of Stores
- Distribution, Standardisation Codification
- Condemnation and Disposal
- Stores documentation
- Role of computers in Stores Management
- 12. Risk Management
 - Ergonomics and its application in hospitals
 - Occupational hazards
- 13. Industrial Relations
 - Workman Compensation Act
 - Definition, scope and importance of industrial relations
 - Industrial Disputes Act
 - Trade unions
 - Organs of industrial peace
 - Industrial relations in health service industries
 - Wage fixation
- 14. Hospital Management Information System
 - Collective bargaining
 - Concepts of management information system analysis and design
 - HMIS a tool to managerial control
- 15. Quantitative methods of Management, Modern Management Techniques Public Private Partnership Act
 - Concept
 - Applications of OR techniques i.e. PERT, CPM, queuing theory etc
 - Management by objective
 - P P P
- 16. Marketing Management
 - Concept of Marketing
 - Marketing strategies, evaluation and control
 - Marketing information and research
 - Marketing and medical ethics
 - Marketing of Hospital and health facilities
 - Social Aspects of Marketing

- Privatization of health and hospital services
- Medical Tourism

Health care and health administration

Sl	Topic	Contents
1.	Development of health Services in India	<ul style="list-style-type: none"> ● Evaluation of health care services • Medical in antiquity Modern medicine ● Definition & dimensions of health ● Review of different reports on Health Care
2.	Medical Sociology	<ul style="list-style-type: none"> ● Introduction ● Sociological perspectives of Health, illness and healing ● The institutional perspective ● Organisational perspective
3.	Health & Disease	<ul style="list-style-type: none"> ● Concept of health & disease ● Concept of well being ● Natural history of disease and role of hospitals in various levels of prevention ● Cause and effect relationship ● Dynamics of disease transmission ● Changing pattern of diseases ● Concept of health indicators
4.	Research Methodology in health and hospital Administration	<ul style="list-style-type: none"> ● Introduction ● Types of surveys ● Selecting a problem, making hypothesis ● Determining objectives ● Sample size determination ● Data collection techniques and tools ● Interview techniques ● Observation technique ● Analysis of data ● Report writing ● FGD, Case Study
5.	National Health Policy	<ul style="list-style-type: none"> ● Health for all by 2000 AD and Primary Health Care ● Role of Health education and communication ● Overview of health policy, National population policy and five year plans
6.	Epidemiology, its application and use in hospitals	<ul style="list-style-type: none"> ● Methods of Epidemiological studies ● Monitoring and surveillance ● Screening, surveys ● Investigation of an epidemic and role of hospital in its control

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| 7. | Biostatistics | <ul style="list-style-type: none"> • Basic concept-Introduction, Definitions • Presentation of data • Frequency of distribution • Measurements of central tendency • Measurement of dispersion • Sampling & Sampling error • Testing of hypothesis • Test of significance • ALOS, BTR • DR, BOR |
| 8. | Health statistics and Health Information System in India | <ul style="list-style-type: none"> • Need • Common rates & ratio • Incidence & prevalence rates and mortality • Morbidity Statistics • International Classification of Diseases • Health reports • Notifiable diseases • Health Information System in India • Region of Birth deaths Health case reporting and note of NIC |
| 9. | Health care delivery system in India and various parts of world | <ul style="list-style-type: none"> • Health Care Delivery System in India- Primary, Secondary and Tertiary Care • District Health Organisation • Regionalisation • Inter-sectoral coordination • ISM/Ayush • IEC and community participation • Health systems in developed and developing countries |
| 10. | Health Economics | <ul style="list-style-type: none"> • Basics of health economics • Analysis of demand and supply • Health Insurance Schemes and social Security schemelike CGHS, ESI etc. in India • Medical care system & Health Insurance System in different countries (USA, UK, USSR) |
| 11. | Population Dynamics | <ul style="list-style-type: none"> • Demography and Family Planning • Demographic cycle |
| 12. | National Health Programmes | <ul style="list-style-type: none"> • All National Health Programmes |
| 13. | Communication & Health Education | <ul style="list-style-type: none"> • Types of Communication • Methodic • Group • Media • Principle & practice of health education • IEC in hospitals |
| 14. | International Health | <ul style="list-style-type: none"> • International Health agencies/NGOs • International Health Regulations |

15. Hospital Administration as a Speciality
- Role & functions of Hospital Administration
 - Hospital as an Organisation
 - Profile of Hospital Administrator
 - Role of Hospital administration in education and research

Planning and hospital administration

Sl	Topic	Contents
1.	Hospital – An Introduction	<ul style="list-style-type: none"> • History and development of hospitals • Definition, types, control, role and functions • Hospitals India today their number, types, size, distribution, ownership, utilization, issues & trends.
2.	Nursing Administration	<ul style="list-style-type: none"> • Introduction to Nursing profession. • Nursing organization structure • Nurses and doctors relationship • Nurses and patients relationship • Nurse as a social and professional entity • Staffing norms in various types of hospitals and different departments. • Recent trends in nursing profession and nursing practices.
3.	System approach to Hospital Administration	<ul style="list-style-type: none"> • Hospital as a system • System approach to Hospital Admn.
4.	Human relations in hospital	<ul style="list-style-type: none"> • Public relations & Hospital Training of medical & paramedical manpower in hospitals. • Interpersonal relationship • Conflict management • Stress management • Counseling • Occupational safety
5.	Employees welfare	<ul style="list-style-type: none"> • Quality concept • Verifiable standards and parameters in evaluation of quality. • Quality Assurance • Total Quality Management • Quality Circle
6.	Quality in Health Services	

- 7. Future of Hospital Administration
 - Performance Review
 - Hospital statistics & quality control.
 - Recent trends in hospital
 - Challenges to administrators
 - Reengineering
 - Telemedicine
 - Artificial intelligence
 - Accreditation.
- 8. Hospital Planning-General consideration
 - Changing system of Health Services concept in planning, designing and space
 - Site surveys for planning a hospital
 - Hospital building an overview
 - External architectural aspects and landscaping
 - Internal arrangements
 - Hospital hygiene and sanitation
 - Lighting & Ventilation
 - Role of administrator in building a hospital.
 - Conservation of energy and water harvesting
 - Eco preservation
- 9. Planning of different types of hospitals
 - Planning of 30, 100, 250 bedded hospital (general/speciality)
 - Planning of 500, 750 and above bedded hospital (teaching /super speciality/non-teaching speciality hospitals)

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| 10. | Project Management & related case studies | <ul style="list-style-type: none"> • Feasibility study • Project conceptualization • Functional requirements • External and Internal traffic • Space programming • Architects brief • Enumeration and description of project as an entity • Human Resource Plan • Implementation |
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Administration of clinical & non-clinical services

Sl	Topic	Contents
1.	Clinical Service Areas	<ul style="list-style-type: none"> • Accident Emergency Service • Outpatient Department • Operating Department • In patient Department • Ward designing – general & specialized • Intensive Care Unit – General & Specialised • Nuclear Medicine Department • Physical Medicine Department • Burns, paraplegic and Malignant Diseases Treatment Centres • Nephrology services – Renal Dialysis Unit • Transplantation unit • Progressive Patient case and home case
2.	Support Services	<ul style="list-style-type: none"> • Radiological and other imaging services • Hospital Laboratory services • Blood Transfusion services • Ambulance services • Pharmacy services • Central Sterile Supply Department (CSSD) • Oxygen Manifold/Concentrator • Dietary services • Hospital Laundry

3. Utility Services
 - House keeping Services
 - Hospital Engineering Services
 - Hospital Stores
 - Medical Records, Admission, enquiry and registration
 - Hospital establishment and offices
 - Cafeteria services
 - Welfare
 - Monetary service
4. Legal issues in Hospital Administration
 - Broad introduction to medical jurisprudence and its application in hospitals.
 - Consumer Protection Act and its application in hospitals
 - Law of Tort and Negligence
 - Different law & Acts applicable to hospitals e.g. Drug & Cosmetic Act, Organ Transplantation Act etc.
5. Hospital Hazards
 - General safety
 - Fire safety
 - Hospital Hygiene
 - Hospital acquired infection
 - Electric hazards
6. Biomedical Waste Management
 - BMW management and handling rule
 - Segregation
 - Collection
 - Transportation
 - Disposal
 - Modern technology for handling BMW
 - Radioactive waste handling
7. Disaster Management in hospitals
 - Definition, types
 - Components of Disaster plan-Pre-hospital & hospital
 - Disaster Preparedness
 - Disaster Plan formulation & implementation
8. Equipment Management
 - Technology atleast as Acquisition
 - Demand estimation
 - Strategies of Hospital Equipment Planning & Selection
 - Purchase procedure
 - Installation and commissioning
 - Hospital Equipment Repair and Maintenance
 - Quality control in equipment planning.

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

- Presentation and communication skills
- Problem solving skills
- Leadership skills
- Planning and monitoring of the health activities
- Analysis of data
- Evaluation of the activities and programmes
- Research
- Mentoring
- Training and development of manpower

ANNEXURE –III, SAMPLE CASES FOR PRESENTATION AND DISCUSSION

Long cases

1- Planning and Organisation of any of the following clinical/utilities services

- a) OT
 - b) ICU
 - c) Wards
 - d) Blood Bank
 - e) Laboratory Services
 - f) Imaging Services
 - g) CSSD
 - h) Pharmacy
 - i) Labor Room
 - j) OPD
 - k) Accident and Emergency services
 - l) MRD
 - Dietary Services
 - House keeping
 - Laundry
- 2.
- a) Hospital Waste Management
 - b) Hospital Infection Control
 - c) Hospital Information System
 - Equipment Management
 - Medical Store Management/Inventory Control
 - Patient Satisfaction

Short cases

- Quality of Services is MCH Centre/FRU
- Health Information System
- Organisation and Management of CHC
- Epidemiology study locally designed as given to the student.
- Calculation of various health indicators.
- Balance Sheet

Spots

- Break even analysis
- EOQ
- Balance Sheet
- Use Coefficient
- Waste disposal bags Symbol
- Types of wards
- Disinfections
- Needle Cutter
- Epidemiological Curves
- DOTS
- Different types of forms.

ANNEXURE-IV, SAMPLE QUESTIONS FOR SIX MONTHLY ASSESSMENTS

- Zones in Operation Theatre
- Triage
- Medical negligence
- Law of Torts
- Hospital Acquired Infections
- Hospital statistics
- Consent
- Consumer Protection Act
- Medical ethics
- Essential drugs
- Cost containment measures
- Economic Order Quantity
- ABC & VED Analysis
- Leadership styles
- Management Grid
- Theories of motivation
- Human resource planning
- Work culture
- HMIS
- Salient features of National Health Policy/ National Population Policy
- Role of hospital in National Health Programmes
- Role of District Health Officer
- Epidemic management at a district
- Community participation
- Intersectoral coordination in health
- Regionalisation of health services
- Primary health care
- Standard Operative Procedures (SOP) for OT/ ICU
- Blood bank services

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

Books

Must read

- Rowland and Rowland
- Mcwldy and Davis
- Parsad Park
- JRMC Gibony
- Journal of Academy of Hospital Administration
- Principles and Prective of Public Health Administration by – J. J. Halon
- B. M. Sakhankar
- IGNOU Modules for PGDHHM
- Hospital Administration by – Amir Tabisls

Must refer

- Health Statisties By – Dr. P. Sundar Rao
- National Health Programme By – Dr. P. K. Taneja

Journals

- Journal of the Academy of Hospital Administration
- Indian Journal of Community Medicine
- Indian Pediatrics
- Indian journal of Public Health

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- General & Specific

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

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07.	Library facilities	
	Budget spent on library in last six months.	
	Total Number of books in the specialty with latest editions	

<p>Number of journals in the specialty</p> <p>Names of Indian journals</p> <p>Names of Foreign journals</p> <p><u>Internet facilities and number of computers available for candidates</u></p> <p><u>Whether the hospital has installed reception equipment for satellite reception of CME programmes, Yes/ No, If no the reasons</u></p>
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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%
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C	Satisfactory	50%-	60%	D	Poor	30% -	50%
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E	Bad	Below	30%
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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

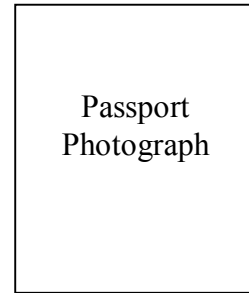
Name (Block Letters) :

Permanent Address :

Date of Birth :

Fathers Name & Address :

Education :



MBBS

Specimen Signature

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

House-job

Subject	Date of 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
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Lectures

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

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

S. No.	Date	Details of management of different units in the hospitals/ health services
--------	------	--

Panel Discussions

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