

Syllabus for Ph.D. in 'Nursing' Entrance Examination

ADVANCE NURSING PRACTICE-30 Marks

<ul style="list-style-type: none">• Nursing as a Profession• History of development of nursing profession, characteristics, criteria of the profession, perspective of nursing profession-national, global.• Code of ethics(INC), code of professional conduct(INC), autonomy and accountability, assertiveness, visibility of nurse, legal considerations.• Role of regulatory bodies• Professional organizations and unions-self defense, individual and collective bargaining• Educational preparation, continuing education, career opportunities, professional advancement & role and scope of nursing education.• Role of research, leadership and management.• Quality assurance in nursing (INC).• Futuristic nursing.
<p style="text-align: center;">Health care Delivery</p> <ul style="list-style-type: none">• Health care environment, economics, constraints, planning process, policies, political process vis a vis nursing profession.• Health care delivery system – national, state, district and local level.• Major stakeholders in the health care system-Government, non-govt, Industry and other professionals.• Patterns of nursing care delivery in India.• Health care delivery concerns, national health and family welfare programs, inter-sectoral coordination, role of non-governmental agencies.• Information, education and communication (IEC)• Tele-medicine.
<p>Genetics</p> <ul style="list-style-type: none">• Review of cellular division, mutation and law of inheritance, human genome project, The Genomic era.• Basic concepts of Genes, Chromosomes & DNA.• Approaches to common genetic disorders.• Genetic testing – basis of genetic diagnosis, Pre symptomatic and predisposition testing, Prenatal diagnosis & screening, Ethical, legal & psychosocial issues in genetic testing.• Genetic counseling.• Practical application of genetics in nursing.
<p>Epidemiology</p> <ul style="list-style-type: none">• Scope, epidemiological approach and methods,• Morbidity, mortality, • Concepts of causation of diseases and their screening,• Application of epidemiology in health care delivery, Health surveillance and health informatics.• Role of nurse• Concepts of causation of diseases and their screening,• Application of epidemiology in health care delivery, Health surveillance and health informatics.• Role of nurse

Bio-Psycho social pathology

- Pathophysiology and Psychodynamics of disease causation
- Life processes, homeostatic mechanism, biological and psycho-social dynamics in causation of disease, life style.
- Common problems: Oxygen insufficiency, fluid and electrolyte imbalance, nutritional problems, hemorrhage and shock, altered body temperature, unconsciousness, sleep pattern and its disturbances, pain, sensory deprivation.
- Treatment aspects: pharmacological and pre-post operative care aspects,
- Cardio pulmonary resuscitation.
- End of life care
- Infection prevention (including HIV) and standard safety measures, bio-medical waste management.
- Role of nurse – Evidence based nursing practice.

Philosophy and Theories of Nursing

- Values, Conceptual models, approaches.
- Nursing theories: Nightingale's, Henderson's, Roger's, Peplau's, Abdella's, Lewine's, Orem's, Johnson's, King's, Neuman's, Roy's, Watson parsec, etc and their applications.
- Health belief models, communication and management, etc
- Concept of Self health
- Evidence based practice model.

Nursing process approach

- Health Assessment- illness status of patients/clients (Individuals, family, community), Identification of health illness problems, health behaviors, signs and symptoms of clients.
- Methods of collection, analysis and utilization of data relevant to nursing process.
- Formulation of nursing care plans, health goals, implementation, modification and evaluation of care.

Psychological aspects and Human relations

- Human behavior, Life processes & growth and development, personality development, defense mechanisms,
- Communication, interpersonal relationships, individual and group, group dynamics, and organizational behavior,
- Basic human needs, Growth and development, (Conception through preschool, school age through adolescence, young & middle adult, and Older adult)
- Sexuality and sexual health.
- Stress and adaptation, crisis and its intervention,
- Coping with loss, death and grieving,
- Principles and techniques of Counseling

Nursing practice

- Framework, scope and trends.
- Alternative modalities of care, alternative systems of health and complimentary therapies.
- Extended and expanded role of the nurse, in promotive, preventive, curative and restorative health care delivery system in community and institutions.
- Health promotion and primary health care.
- Independent practice issues, Independent nurse-midwifery practitioner.
- Collaborations issues and models-within and outside nursing.
- Models of Prevention,
- Family nursing. Home nursing,
- Gender sensitive issues and women empowerment.
- Disaster nursing.
- Geriatric considerations in nursing.
- Evidence based nursing practice.
- Trans-cultural nursing.

Computer applications for patient care delivery system and nursing practice

- Use of computers in teaching, learning, research and nursing practice.
- Windows, MS office: Word, Excel, Power Point,
- Internet, literature search,
- Statistical packages,
- Hospital management information system: softwares.

NURSING EDUCATION-10 Marks

Introduction :

- ❖ Education : Definition, aims, concepts, philosophies & their education implications,
- ❖ Impact of Social, economical, political & technological changes on education:
 - Professional education
 - Current trends and issues in education
 - Educational reforms and National Educational Policy, various educational commissions – reports.
 - Trends in development of nursing education in India.

Teaching – Learning Process

- Concepts of teaching and learning: Definition, theories of teaching and learning, relationship between teaching and learning.
- Educational aims and objectives; types, domains, levels, elements and writing of educational objectives
- Competency based educational(CBE) and outcome based education(OBE)
- Instructional design: Planning and designing the lesson, writing lesson plan: meaning, its need and importance, formats.
- Instruction strategies – Lecture, discussion, demonstration, simulation, laboratory, seminar, panel, symposium, problem solving, problem based learning (PBL), workshop, project, role- play (sociodrama), clinical teaching methods, programmed instruction, self-directed learning(SDL), micro teaching computer assisted instruction (CAI), computer assisted learning(CAL)

Instructional media and methods

- Key concepts in the selection and use of media in education
- Developing learning resource material using different media
- Instruction aids – types, uses, selection, preparation and utilization.
- Teacher's role in procuring and managing instructional Aids – Project and non-projected aids, multi media, video-tele conferencing etc.

Measurement and evaluation:

- Concept and nature of measurement and evaluation, meaning, process, purposes, problems in evaluation and measurement.
- Principles of assessment, formative and summative assessment - internal assessment external examination, advantages and disadvantages.
- Criterion and norm referenced evaluation.

Standardized and non-standardized tests:

- Meaning, characteristics, objectivity, validity, reliability, usability, norms, construction of tests-
 - Essay, short answer questions, and multiple choice questions.
 - Rating scales, checklist, OSCE/ OSPE (Objective structured clinical / practical examination)
 - Differential scales, and summated scales, Sociometry, anecdotal record, attitude scale, critical incident technique.
- Question bank-preparation, validation, moderation by panel, utilization.
- Developing a system for maintaining confidentiality.

Administration, Scoring and Reporting

- Administering a test; scoring, grading versus marks
- Objective tests, scoring essay test, methods of scoring, Items analysis.

Standardized Tools

- Tests of intelligence aptitude, interest, personality, achievement, socio-economic status scale, tests for special mental and physical abilities and disabilities.

Nursing Educational programs

- Perspectives of nursing education: Global and national.
- Patterns of nursing education and training programmes in India. Non-university and University programs: ANM, GNM, Basic B.Sc. Nursing, Post Certificate B.Sc. Nursing, M.Sc(N) programs, M.phil and Ph.D) in Nursing, post basic diploma programs, nurse practitioner programs.

Continuing Education in Nursing

- **C o n c e p t s** – Definition, importance, need scope, principles of adult learning, assessments of learning needs, priorities, resources.
- Program planning, implementation and evaluation of continuing education programs.
- Research in continuing education.
- Distance education in nursing.

Curriculum Development

- Definition, Curriculum determinants, process and steps of curriculum development, Curriculum models, Types and framework.
- Formulation of philosophy, objectives, selection and organization of learning experiences; master plan, course plan, unit plan.
- Evaluation strategies, process of curriculum change, role of students, faculty, administrators, statutory bodies and others stakeholders.
- Equivalency of courses: Transcripts, credit system.

Teacher preparation

- Teacher – roles & responsibilities, functions, characteristics, competencies, qualities.
- Preparation of professional teacher
- Organizing professional aspects of teacher preparation programs.
- Evaluation: self and peer
- Critical analysis of various programs of teacher education in India.

Guidance and counseling

- Concept, principles, need, difference between guidance and counseling, trends and issues.
- Guidance and counseling services : diagnostic and remedial.
- Coordination and organization of services.
- Techniques of counseling: Interview, case work, characteristics of counselor, problems in counseling.
- Professional preparation and training for counseling.

Administration of Nursing Curriculum

- Role of curriculum coordinator – planning implementation and evaluation.
- Evaluation of educational programs in nursing course and program.
- Factors influencing faculty staff relationship and techniques of working together.
- Concept of faculty supervisor (dual) position.
- Curriculum research in nursing.
- Different models of collaboration between education and service.

Management of nursing educational institutions

- Planning, organizing, staffing, budgeting, recruitment, discipline, public relation, performance appraisal, welfare services, library services, hostel.

- Development and maintenance of standards and accreditation in nursing education programs.
- Role of Indian Nursing Council, State Registration, Nursing Councils, Boards and University.
- Role of Professional associations and unions.

NURSING RESEARCH AND STATISTICS – 50 Marks

RESEARCH - 40 Marks

Introduction:

- Methods of acquiring knowledge – problem solving and scientific method.
- Research – Definition, characteristics, purposes, kinds of research
- Historical Evolution of research in nursing
- Basic research terms
- Scope of nursing research: areas, problems in nursing, health and social research
- Concept of evidence based practice
- Ethics in research
- Overview of Research process

Review of Literature

- Importance, purposes, sources, criteria for selection of resources and steps in reviewing literature.

Research Approaches and Designs

- Type: Quantitative and Qualitative
- Historical, survey and experimental – characteristics, types advantages and disadvantages
- Qualitative: Phenomenology, grounded theory, ethnography

Research problem:

- Identification of Research Problem
- Formulation of problem statement and research objectives
- Definition of terms
- Assumptions and delimitations
- Identification of variables
- Hypothesis – definition, formulation and types.

Developing theoretical/Conceptual framework.

- Theories: Nature, characteristics, Purpose and uses
- Using, testing and developing conceptual framework, models and theories

Sampling

- Population and sample
- Factors influencing Sampling
- Sampling techniques
- Sample size
- Probability and sampling error
- Problems of sampling

Tools and methods of Data collection:

- Concepts of data collection
- Data sources, methods/techniques
- quantitative and qualitative
- Tools for data collection – types, characteristics and their development
- Validity and reliability of tools
- Procedure for data collection

Implementing research Plan

- Pilot Study
- Review research plan (design)
- Planning for data collection
- Administration of tool/interventions, collection of data

Analysis and interpretation of data

- Plan for data analysis: quantitative and qualitative
- Preparing data for computer analysis and presentation.
- Statistical analysis
- Interpretation of data
- Conclusion and generalizations
- Summary and discussion

Reporting and utilizing Research findings:

- Communication of research results; oral and written
- Writing research report
Purposes, methods and style-Vancouver, American psychological Association(APA), Campbell etc
- Writing scientific articles for publication: purposes & style

Critical analysis of research : Reports and articles

Developing and presenting a research proposal

Statistics -10 Marks

Introduction:

- Concepts, types, significance and scope of statistics, Meaning of data, Sample, parameter
- Type and levels of data and their measurement
- Organization and presentation of data
 - Tabulation of data; Frequency distribution
 - Graphical and tabular presentations

Measures of central tendency: Mean, Median, Mode

Measures of variability: Range, Percentiles, average deviation, quartile deviation, standard deviation

Normal Distribution:

- Probability,
- Characteristics and application of normal probability curve;
- Sampling error.

Measures of relationship:

- Correlation – need and meaning
- Rank order correlation;
- Scatter diagram method
- Product moment correlation
- Simple linear regression analysis and prediction.

Designs and meaning:

- Experimental designs
- Comparison in pairs,
- randomized block design,
- Latin squares.

**Significance of Statistic and Significance of difference between two statistics
(Testing hypothesis)**

- Non parametric test – Chi-square test, Sign, median test, Mann Whitney test.
- Parametric test – ‘t’ test, ANOVA, MANOVA, ANCOVA

Use of statistical methods in psychology and education:

- Scaling – Z Score, Z Scaling
- Standard Score and T Score
- Reliability of test Scores: test-retest method, parallel forms, split half method.

Application of statistics in health:

- Ratios, Rates, Trends
- Vital health statistics - Birth and death rates,
- Measures related to fertility, morbidity and mortality

Use of Computers for data analysis

Use of statistical package.

NURSING MANAGEMENT-10 Marks

Introduction

- Philosophy, purpose, elements, principles and scope of Administration
- Indian Administrative system vis a vis health care delivery system: National, State and Local, Indian Constitution
- Organisation and functions of nursing services and education at National, State, District and institutions: Hospital and Community
- Planning process: Five year plans, various Committee Reports on health, State and National Health policies, national population policy, national policy on AYUSH and plans

Management

- Functions of administration
- Planning and control
- Co-ordination and delegation
- Decision making – decentralization basic goals of decentralization.

Nursing management

- Concept, types, principles and techniques
- Vision and Mission Statements
- Philosophy, aims and objective
- Current trends and issues in Nursing Administration
- Theories and models
- Application to nursing service and education

Planning

- Planning process: Concept, Principles, Institutional policies
- Mission, philosophy, objectives,
- Strategic planning
- Operational plans
- Management plans
- Programme evaluation and review technique(PERT), Gantt chart, Management by objectives(MBO)
- Planning new venture
- Planning for change
- Innovations in nursing
- Application to nursing service and education

Organisation

- Concept, principles, objectives, Types and theories, Minimum requirements for organization, Developing an organizational structure, levels, organizational effectiveness, organizational Climate,
 - Organising nursing services and patient care: Methods of patient assignment, Advantages and disadvantages, primary nursing care.
 - Planning and Organising: hospital, unit and ancillary services (specifically central sterile supply department, laundry, kitchen, laboratory services, emergency etc)
 - Disaster management: plan, resources, drill, etc
- Application to nursing service and education

Human Resource For Health

Staffing

- Philosophy
- Norms: Staff inspection unit(SIU), Bajaj Committee, High power committee, Indian nursing council(INC)
- Estimation of nursing staff requirement – activity analysis
- Various research studies

Recruitment:

- Credentialing, selection, placement, promotion, Retention

Personnel policies ,Termination

- Staff development programme
- Duties and responsibilities of various category of nursing personnel
- Applications to nursing service and education

Directing

- Roles and functions
- Motivation: Intrinsic, extrinsic. Creating motivating, climate, motivational theories
- Communication: Process, types, strategies, interpersonal communication, channels, barriers problems, confidentiality, public relations
- Delegation: common delegation errors
- Managing conflict: process, management, negotiation, and consensus
- Collective bargaining: health care labor laws, unions, professional association, role of nurse manager
- Occupational health and safety
- Application to nursing service and education

Material management

- Concepts, principles and procedures
- Planning and procurement procedures: Specifications, ABC analysis. VED (very important and essential daily use) analysis
- Planning equipments and supplies for nursing care, unit and hospital
- Inventory control
- Condemnation
- Application to nursing service and education

Controlling

- Quality assurance - Continuous Quality Improvement
 - Standards,
 - Models
 - Nursing audit
- Performance appraisal: Tools, confidential reports, formats, management, interviews
- Supervision and management: Concepts and Principles
- Discipline: Service rules, self discipline, constructive versus destructive discipline, problem - employees, disciplinary proceedings, enquiry
- Self evaluation or peer evaluation, patient satisfaction, utilization review
- Application to nursing service and education

Fiscal planning

- Steps, Plan and non -plan, zero budgeting, mid-term appraisal, capital and revenue
- Budget estimate, revised estimate, performance Budget
- Audit
- Cost effectiveness , Cost accounting
- Critical pathways
- Health care reforms
- Health economics
- Health insurance
- Budgeting for various units and levels
- Application to nursing service and education

Nursing Informatics

- Trends,
- General purpose
- Use of computers in hospital and community
- Patient record system
- Nursing records and reports
- Management information and evaluation system (MIES)
- E - Nursing, telemedicine, tele nursing
- Electronic medical records

Leadership

- Concepts, types, theories, Styles
- Manager behavior, Leader behavior
- Effective leader: characteristics and skills
- Group dynamics ,Power and politics,
- Lobbying
- Critical thinking and decision -making
- Stress management
- Applications to nursing service and education

Legal and ethical issues

Laws and ethics

- Ethical committee,
- Code of ethics and professional conduct
- Legal system: Types of law, tort law, and liabilities
- Legal issues in nursing: Negligence, Malpractice, Invasion of privacy, Defamation of character
- Patient care issues, management issues, employment issues

Medico legal issues

- Nursing regulatory mechanisms: Licensure, Renewal, Accreditation
- Patient rights, Consumer protection act(CPA)
- Rights of special groups: Children, Women, HIV, Handicap & ageing
- Professional responsibility and accountability
- Infection control
- Standard safety measures.

Weightage for Question Paper Setting

Subject	Marks
Advance Nursing Practice	30
Nursing Education	10
Nursing Research & Statistics	50 (40+10)
Nursing Management	10
TOTAL	100