# SYLLABUS FOR THE POST OF NURSING OFFICER (STAFF NURSE GRADE-II)

#### NURSING FOUNDATIONS

- a). Health and Wellness: Definition of health, Concept of health, Concept of wellness and wellbeing Concept of health-illness continuum, Models of health and illness, Variables influencing health and health beliefs and practices, Health promotion, wellness, and levels of, disease prevention, Risk factors influencing health
- b). Nursing as a Profession: Nursing: Definition, concepts, philosophy, objectives, History of nursing in India, Characteristics, nature and scope of nursing practices, Qualities of a professional nurse ,Professional responsibilities and roles of a nurse, Evidence Based Practice (EBP) in Nursing, Trends of nursing in India ,Ethics and values in nursing,
- c). Hospital Admission and Discharge: Admission to the hospital: Unit and its preparation admission bed. Admission procedure, Special considerations, Medico legal issues in admission, Roles and responsibilities of the nurse in admission. Discharge from the hospital: Types of discharge: Planned discharge, LAMA/DAMA and abscond, referrals and transfers. Discharge planning. Discharge procedure. Special considerations. Medico legal issues in discharge, Roles and responsibilities of the nurse in discharge. Care of the unit after discharge
- d). Communication and Nurse Patient Relationship: Communication and nursing practice; Basic elements of communication process, Forms of communication, Professional nursing relationship, Elements of professional, communication, Patient teaching: importance, purpose, process, role of nurse.
- e). Nursing Process and nursing care plan: Meaning, importance and steps in development.
- f). Documentation and Reporting: Documentation: Purpose of recording and reporting Communication within the health care team Types of records: ward records, medical/nursing records ,Common record keeping forms, computerized documentation ;Guideline for reporting: factual ,basis, accuracy, completeness ,correctness, organization, & confidentiality: Methods of recording ;Reporting: Change of shift ,reports, Transfer reports, incident reports.
- g). Vital Signs: Guidelines for taking vital signs.
  - i. Body temperature: Physiology, regulation, factors, affecting body temperature. Assessment of body temperature: sites, equipment's and technique, special considerations, Temperature alterations (hyperthermia, hypothermia & Heatstroke): assessment &management, Hot and cold applications.
  - ii. Pulse: Physiology and regulation, characteristics of the pulse, factors affecting pulse. Assessment of pulse: sites, location, equipment's andtechnique, special considerations. Alterations in pulse: Tachycardia and bradycardia.
  - iii. Respiration: Physiology and regulation, mechanics of breathing, characteristics of the respiration, factors affecting respiration. Assessment of respiration: techniques, special consideration. Alteration in respiration: types, assessment & management.
  - iv. Blood pressure: Physiology and regulation, characteristics of the blood pressure, factors affecting blood pressure Assessment of blood pressure sites equipment's and technique, special considerations Alterations in blood pressure: Hypertension and hypotension.
- h). Health Assessment: Purposes of health assessment, Health history taking, Physical examination-Preparation & organization of physical examination, Methods & techniques of physical assessment. General assessment, Head to toe examination, after care of physical assessment.
- i). Care of Equipment and Linen: Indent, maintenance and inventory; Disposable; Reusable; Rubber goods; Enamelware; Stainless steel articles; Glassware; Hospital furniture; Sharp instruments; Machinery.
- j). Care in Special Condition: Unconscious patient; Patient with fluid imbalance; Patient with Dyspnea; physically handicapped; Perineal care of terminally ill-patient with urinary catheter.
- k). Infection Control in Clinical Settings: Nature of Infection; Chain of infection transmission; Hospital acquired infection; Hand washing: Medical and surgical hand washing; Disinfection of equipment and unit
- l). Barrier Nursing: Standard Safety precaution (Universal Precaution); Different types of hand washing; Personal protecting equipment's types, uses, techniques of wearing and removing.
- m). Biomedical waste management : Concept and importance; Segregation of hospital waste ;Treatment, transportation and disposal of hospital waste
- n). Administration of drugs: Purposes of drugs; Routes of administration; Principles: Rights, special consideration, prescription, safety in administering drugs; Storage and maintenance of drugs and nurses responsibility; Factors influencing drugs action; Terminologies and common abbreviation used in prescription of drugs.
- o). First Aid Meaning of First Aid; Rules of First Aid. First Aid in emergency Situation such as:- Fire, Earthquakes, Famines; Fractures; Accidents; Poisoning; Drowning; Hemorrhage; Insects bites; Foreign bodies; Transportation of the injured Bandaging and splinting; Immediate and later role of nurses
- p). The dying Patient: Signs and symptoms of approaching death; Needs of the dying patient and relatives; Care of dying and last offices; Packing of dead bodies in non-communicable and communicable diseases
- q). Meeting Needs of Hospitalized Patient:
  - i. Patient safety: Environmental safety: temperature, humidity, noise, ventilation, light, odour, pests control; Fall, fire and accident safety; Safety devices: restraints, side rails, airways, trapez etc.
  - ii. Hygiene: Hygienic care: Hair care, Oral care, Bed bath, Back care, Hand-feet & nail care, Eye care, Care of ear and nose; Patient environment: Unit cleaning/disinfection.

- iii. Comfort: Types of beds and bed Making; Comfort devices; Pain management: Nature, types,factors influencing pain, coping,assessment and management ofpain.
- iv. Elimination needs: Problems in sickness: Constipation, diarrhea, retention and in-continence of urine; Nurses role in meeting eliminating needs.
- v. Meeting nutritional needs: Importance of Nutrition; Factors effecting nutritional needs.
- vi. Activity and Exercises: Importance of activity and Exercise in health and sickness, active and passive Exercise.

#### MEDICAL SURGICAL NURSING

- a) Role and responsibilities of a nurse in Medical and Surgical Settings : Outpatient Units; In- Patient Units; Intensive Care Units; Home and Community setting
- b) Care of Surgical patient: Pre-operative; Intra operative; Post-operative; Nurses functions in operation theatre
- c) Anesthesia: Classification, anesthetic agents and role of a nurse in anesthesia.
- d) Disorders of the Respiratory System: Etiology, Clinical manifestation, diagnosis, treatment and medical, surgical, dietetics and Nursing Management with: Asthma, Pneumonia, Lung abscess, Pleurisy, Emphysema, Bronchiectasis, Pulmonary Tumours, Pleural Effusions, Pulmonary Tuberculosis, Acute Respiratory distress syndrome, Preventive and rehabilitative aspects
- e) Cardiovascular System: Diseases of heart; Cardiac arrhythmias; Cardiac arrests; Heart Blocks; Pericarditis, Myocarditis, Endocarditis; Congestive heart failure; Hypertension; Angina Pectoris; Valvular Diseases ,Basic life support, Advance cardiac life support.
- f) Vascular Diseases: Arteriosclerosis; Atherosclerosis; Varicose veins and aneurysms.
- g) Blood Disorder: Anaemia; Leukemia; Haemophilia; Hodgkins Diseases Blood Transfusion: Indications; Grouping and matching; R.H factors; Plasma precautions in administration; Blood bank functioning and hospital transfusion committee. Bio-safety and waste management in relation to blood transfusion
- h) Gastro Intestinal System: Stomatitis, gingivitis and parotitis; Dental caries; Tumours; Gastritis; Peptic ulcer; Enteritis; Colitis; Appendicitis; Haemorrhoids; Hernia; Hepatitis; Cirrhosis of liver; Liver abscess; Cholecystitis; Hepatic coma; Pancreatitis; Carcinoma of liver and Pancreas; Tuberculosis
- i) Musculo-Skeletal System: Disorder and diseases of bones and joints : Sprains, Dislocation, Fractures, Arthritis, Osteomyelitis, Tumours, Tuberculosis, Deformities
- j) Genito Urinary System: Diseases of kidney, ureter, bladder and urethra; Congenital abnormalities; Acute and chronic nephritis; Nephrosis; Uraemia; Tumours; Tuberculosis; Obstruction; Pyelitis and Pyelonephritis; Cystitis; Disorder of Micturition; Urethritis; Cancer Penis; Inflammation of testes, Epididymis and Prostate glands; Prostatic hypertrophy; Malignancy. Dialysis, renal transplant,trauma of ureter,bladder,urethra.
- k) Nervous System: Diseases of Brain: Headache, Migraine; Epilepsy; Tumours; Chorea; Parkinsonism; Meningitis; Encephalitis; head and spinal cord Injuries; Cerebro-vascular accidents, haemorrhage, Embolism and thrombosis Diseases of Spinal Cord: Myelitis; Injuries; Tumours; Spinal cord compressions Diseases of Nerves: Neuritis and neuralgia; Myasthenia-gravis; Sciatica; Heat Stroke, heat Exhaustion; Cranial, Spinal Neuropathies;
- 1) Endocrine System, Metabolic disorders, deficiency diseases: Hyper and hypo Secretions of: Thyroid, Parathyroid, Pituitary, Adrenal gland; Cysts/Tumours; Metabolic Disorders: Diabetes Mellitus; Obesity; Gout; Deficiency Diseases: Common deficiency diseases; Prevalence in India; Early symptoms, prevention and treatment.
- m) Operation Theatre: General set up of operation theatre and team; Theatre technique: hand washing, gowning and gloving; Preparation of theatre equipment and instruments in common use; Role of a nurse in care of patient in the theatre; Principle of recovery room's care.
- n) Intensive Care Nursing: Concept; Principles of Intensive Care Nursing; Role of a nurse in I.C.U; Common gad gets use in I.C.U/C.C.U-Cardiac Monitors, Birds, respirator, defibrillators, etc
- o) Diseases and Disorders of eye: Blindness-causes and prevention; Eye banking, Community services; Conjunctivitis; Glaucoma; Cataract; Retinal detachments; Eye prostheses and rehabilitation; Injury and hemorrhage
- p) Diseases of the ear: Wax; Foreign bodies; Furunculosis; Fungal infections; Otitis Media; Injuries and deafness; Mastoiditis; Menieres syndrome Disease of nose and throat: Rhinitis; Defected Septum; Sinusitis; Allergy; Adenoids; Laryngitis; Tonsillitis; Pharyngitis; Injury
- q) Communicable Diseases: Virus: Measles, influenza. Chickenpox, Smallpox, Mumps, infective hepatitis, poliomyelitis Bacteria: Diphtheria, Whooping cough, tetanus, leprosy, typhoid, dysentery, gastro-enterities and cholera Zoonoses: Kala-azar, plague, replapsing fever and rabies; Mosquito: Malaria, filaria, dengue fever Sexually transmitted diseases: Gonorrhoea, Syphilis, Chancroid
- r) Nursing management of patient with Immunological problems: Review of Immune system; Immunodeficiency disorders -HIV and AIDS.
- s) Nursing Management Of Patients With oncological conditions: Structure & characteristics of normal & cancer cells; Prevention, screening, early detection, Common malignancies of various body systems warning signs of cancer; Modalities of treatment; Hospice care Stomal therapy.
- t) Nursing management of patient in disaster situations: Causes and types of disaster; Policies related to emergency / disaster management at international, national, state, institutional level.; Disaster Management;

u) Nursing management of patient in emergency Emergency Nursing: Concept, priorities, principles & scope of emergency nursing Organization of emergency services: physical set up, staffing, equipment & supplies, protocols, Concepts of triage & role of triage nurse

#### MIDWIFERY AND GYNAECOLOGICAL NURSING

- a) Introduction: Definition: Midwifery, obstetrical Nursing; Development of maternity services in India; Morbidity and mortality rates and their significance; Internal and External organs of reproduction; Female pelvis: Structure, diameters and type; Fertilisation and implantation of the ovum; Foetal development and foetal circulation.
- b) Normal Pregnancy : Physiological changes due to pregnancy; Signs, symptoms and diagnosis; Influence of hormones
- c) Pre-natal care: Objectives; History taking; Calculation of Expected date of delivery; Routine Examinations
- d) Care and advice regarding: diet in pregnancy; anti-natal Exercises
- e) Minor disorders of pregnancy and alleviations of discomfort
- f) Diseases associated with pregnancy : Cardio vascular; Urinary; Respiratory; Metabolic; Nutritional deficiencies; Sexually transmitted diseases
- g) Normal Delivery (Preparation): For mother and baby; Preparation of the patient and delivery room-hospital and home; Psychological preparation of mother and family
- h) Normal labour: Definition, stage and duration; Causes of onset of labour; True and False labour
- i) First stage of labour: Signs of onset of labour; Physiological changes in first stage of labour; Managementpreparation of labour; Preparation of women in labour - Physical and Psychological; Equipments for normal delivery; Monitoring of maternal and foetal condition; Vagina l Examination
- j) Second Stage of labour: Signs of second stage; Mechanisms of labour; Monitoring of maternal and foetal conditions; Procedure for conduct of normal delivery; Prevention of Perineal tear; Episiotomy, suturing and care
- k) Third Stage of labour: Signs, Physiological changes; Immediate care of baby; Technique of placenta expulsion and examination of placenta; Monitoring of maternal and newborn baby Nursing Management of Baby and birth: Assessment; Apgar scoring, examination for defects (head to foot examination); Care of cord, eyes and skin; Maintenance of body temperature; Prevention of infection and injury.
- Nursing Management of mother during puerperium: Definition, objectives of care; Immediate postnatal care; Physiological changes during puerperium; Care of Episiotomy; Establishment of breast feeding; Postnatal Exercises; Postnatal Examination, follow up family welfare; Minor ailments and management
- m) Complications of pregnancy and its management: Bleeding in early pregnancy; Bleeding in late pregnancy; Pregnancy induced hypertension, Pre-Eclampsia, Eclampsia; Hydramnios, Oligohydramnios; Hydatidiform mole; Pelvic inflammatory disease; Intra uterine growth retardation, intra uterine death; Post maturity
- n) High risk pregnancy and its management: Anaemia, Jaundice, Viral infection; Urinary tract infections; Heart diseases, diabetes mellitus; Osteomalacia; Sexually Transmitted diseases; AIDS; Teenage Pregnancy; Elderly pregnancy; Multi Para & Multiple pregnancy; Un-Educated mother
- o) Labour Complications: Malpresentations and malpositions; Occipito posterior position; Breach and shoulder; Face and Brow; Cord presentation and prolapse; Obstructed labour; Ruptured uterus; Post partum haemorrhage, atonic uterus, retained placenta and membranes
- p) Complications of puerperium and its management : Puerperal pyrexia, puerperal sepsis, Thrombophlebitis, Embolism, puerperal Psychosis
- q) Obstetrics operations: Manual removal of placenta; Version: Internal, External; Vacuum extraction; Caesarean section; Medical termination of pregnancy; Laparoscopic sterilization; Embryotomy
- r) Drugs used in Obstetrics
- s) Ethical and legal aspects related to midwifery and gynaecological Nursing.
- t) Fertility and Infertility: Definition, causes both in male and female investigation and management
- Diseases and disorders of female reproductive system including breasts: Infections; cyst, tumors and fibroids;
  Abortion; Ectopic pregnancy; Vaginal fistula; Erosion of cervix; Sexually transmission disease; Abnormalities of menstruation; Menopause; Mastitis; Breast abscess; Tumours; Malignancy

# CHILD HEALTH NURSING

- a) Concept in Child health care and role of Paediatric nurse in child care.
- b) The healthy child: Growth and developments and factors affecting growth and development; Assessment of growth and development; Nurses responsibility to meet the nutritional needs; Childhood Accidents; Play importance & therapeutic use; Review of immunization schedule; child guidance clinics
- c) Care of Newborn: Appraisal of Newborn; Nursing care of a normal new born / essential new born care; Neonatal resuscitation; Kangaroo mother care, Nursing management of common neonatal disorder: low birth weight baby;

- Hyperbilirubinemia; Hypothermia hyperthermia; Metabolic disorder; Neonatal infections; Neonatal seizures; Respiratory distress syndrome; Organization of neonatal care unit.
- d) Recognition and Management of Congenital anomalies : Causes, Prevention management; Preparation of the parents; Parents counselling
- e) Breast Feeding: Importance and principles; Preparation of mother; Difficulties in breast feeding; Factors inhabiting and promoting lactation
- f) Introduction of Solids: Weaning; Developing healthy foods habits; Diet of healthy Child; Artificial feeding; Reason and maintenance of hygiene; Feeding technique; Common Problems;
- g) Pre and post-Operative care, Preparation of parents for surgery of the child
- h) Diseases of Children: Etiology, Signs and symptoms, medical and surgical management, nursing care, Complication, diet and drug therapy, prevention and treatment with diseases
  - i. Gastro- intestinal System: Thrush; Gastro enteritis, acute and chronic diarrhoea; Vomiting; cleft lip and cleft palate; Oesophageal atresia; TEF; Pyloric stenosis; Hernia; Intussusception, megacolon; Appendicitis, imperforated anus; Jaundice; Worm infestation
  - ii. Respiratory System : Foreign bodies; common cold and rhinitis; tonsils and adenoids; croup, influenza; bronchitis, pneumonia, asthma, emphysema, Diaphragmatic hernia
  - iii. Genito-urinary System : Nephritis, nephrotic syndrome, nephrosis; Undescended testes; Wilm'stumor; Prevention of infection; Congenital disorders, Renal failure
  - iv. Cardio Vascular system : Congenital defects; Rheumatic fever and Rheumatic heart diseases, Congestive heart failure
  - v. Nervous System : Convulsions, epilepsy; Meningitis, Encephalitis; Epilepsy; Cerebral palsy; Mental retardation; Hydrocephalus; Spina bifida, meningocele; Mongolism
  - vi. Eye and Ear: Conjunctivitis; Squint; Congenital cataract; Visual defects; Otorrhea; Otitis Media, Blindness, Deafness
  - vii. Nutritional Disorder: Marasmus; Kwashiorkor; Anaemia; Vitamin Deficiencies
- viii. Communicable Diseases: Measles, Small pox and chicken pox; polio myelitis; mumps; Tetanus; Diphtheria and whooping cough; infective hepatitis, Scabies, Eczema, Pediculosis, ringworm, fungus, furunculosis
- ix. Hemotological disorder : Anemias, leukemia, thalassaemia, haemophilia
- x. Endocrine disorder: Diabetisinsipidus; dwarfism; Orthopaedic disorder: Club feet; Fractures
- xi. Child health Emergencies: Burns; Drowning; Foreign Bodies; Poisoning
- xii. Psychological disorder and problems: Enuresis, pica, Speech defects, headache, Thumb Sucking, delinquency
- xiii. The Handicapped Child: Importance of early diagnosis; Care of physically and mentally handicapped child; Deprived child; Community facilities; Adaption laws; Foster and orphanages

#### MENTAL HEALTH NURSING

- a). Introduction: Meaning of mental illness; Terms used in psychiatry; Etiology of mental illness and contributing factors; Legal aspects in the care of the mentally sick
- b). Community Responsibility: Attitudes towards mentally ill; Misconceptions towards mentally ill; Health and social service for the mental illness
- c). Diagnosis: Early recognition of deviations from the normal; Classification of mental disorders; Signs and symptoms of common mental illness
- d). Management: Physical therapy; drug therapy, shock therapy; Psychotherapy; hypnosis, psychoanalysis; behaviour therapy, reactional and social therapy, occupational therapy
- e). Role of the Nurse: Over active patient; Destructive patient; Suicidal patient; Depression; Withdrawal and Mania; Prevention of accidents amongst mentally ill; Observation reporting and recording; Procedure for admission into and discharge from mental hospitals

# COMMUNITY HEALTH NURSING

- a) Concept, Definition of Community Health, differences between institutional and community health nursing, qualities and functions of a community health nurse
- b) Aspects of Community Health Nursing: Family Health services, maternal and child care and family planning services; School Health Services; Industrial Nursing; Geriatric Nursing; Tuberculosis Nursing; Nurses Role in National Health Programmes
- c) Demography and Family Welfare: Demography Family Welfare: Its meaning, aims, objectives and importance; Policy; Family Planning methods; National Programme; Nurse's role in family Welfare programme
- d) Health Team: Composition at community: Health Centre (CHC), Primary Health Centre (PHC), Sub-Centre (SC)
- e) Roles of Nursing Personnel at Various levels : Male & Female Health Worker; Health Supervisor; Public Health Nurse; Public Health Nurse Supervisor
- f) Vital Health Statistics: Concept; Uses; Sources; Important rates and indices; Vital Health records and their utilit y; Principles of reporting and recording;
- g) Health Education and Communication skills: Concept, definition, aims & objectives of health education and scope; Methods of health education and Principles of Health education; Communication; Meaning and methods of Communication, verbal and non-verbal Communication; Art of listening; Barriers of communication Audio visual aids: Definition; Advantages and disadvantages; Preparation and uses of simple aids

## **ANATOMY & PHYSIOLOGY**

- a) Skeletal system
  - Bones: Types, Structure, Functions; Joints: Classification, Structure and Functions
- b) Muscular System: Types, Structure, Functions; Position and action of Chief Muscles of the body
- c) Cardio-Vascular System Blood: Composition, Blood Group, Cross Matching Heart: Position, Structure, Conduction System, Functions and Cardiac Cycle; Circulation of Blood; Blood Pressure and Pulse; Lymphatic System
- d) Respiratory System: Structure and Functions of Respiratory Organs; Physiology of Respiration; Characteristics of normal Respiration and its deviations
- e) Digestive System: Structure and Functions of Organs; Digestion, absorption and metabolism.
- f) Excretory System : Structure and functions of Organs; Structure and functions of the Skin; Regulation of body Temperature
- g) Nervous System: Type, structure and functions of neuron; Central Nervous System: Structure and Functions.
- h) Endocrine System : Structure and functions of pituitary, pancreas, thyroid, Parathyroid, Thymus and supra renal glands
- i) Sense Organs: Structure and functions of eye, ear, nose and tongue; Physiology of Vision, hearing and equilibrium.
- j) Reproductive System: Structure and functions of reproductive and accessory organs; Reproduction, Menstrual Cycle and Menopause; Reproductive Health; Structure and functions of male reproductive system.

#### MICROBIOLOGY

- a) Scope and usefulness of knowledge of microbiology in Nursing
- b) Classification of Micro-organisms and factors influencing growth
- c) Sources of Infection
- d) Portals of Entry and Exit of microbes
- e) Transmission of infection
- f) Collection of Specimens & Principles to be kept in mind while collecting specimen
- g) Immunity: Meaning; Types of Immunity; Immunization Schedule (Currently Used)
- h) Control and destruction of micro-organisms : Different types of Sterilization; Disinfection; Bio-safety and waste management

### NURSING RESEARCH & STATISTICS

- a). Research and research process.
- b). Research problem/ question
- c). Review of literature
- d). Research approaches and designs
- e). Population, Sample and Sampling
- f). Data collection methods and tools:
- g). Analysis of data.
- h). Introduction to statistics Definition, use of statistics, scales of measurement. Frequency of distribution and graphical Presentation of data, Measures of central tendency: Mean, median, mode, Measures of Variability: Standard deviation Co-efficient of correlation Normal probability, Tests of significance: 't' test, chi square, Statistical packages and its application SPSS

#### **NURSING MANAGEMENT:**

- a) Introduction to management &Administration in nursing: Definition, nature & Philosophy of Management and Administration
- b) Management Process: Planning, Organization, Human resource management, Directing, Controlling, Budgeting, Material management.
- c) Management of nursing services in the Hospital and Community.
- d) Regulatory bodies; Indian Nursing Council (INC), State Nursing Council Acts; constitution, functions. Current trends and issues in Nursing.
- e) Professional ethics Code of ethics; Indian Nursing Council, International Council for Nurses (ICN). Code of professional conduct; INC, ICN
- f) Legal aspects in Nursing: Legal terms related to practice; registration and licensing Laws related to nursing practice; Breach and penalties Malpractice and negligence
- g) Patient Rights.
- h) Professional Advancement: Continuing education, Career opportunities, Membership with professional organizations; National and International, Participation in research activities, Publications; Journals newspapers etc.

# COMMUNICATION & EDUCATIONAL TECHNOLOGY

- a) Communication Process
- b) Interpersonal relations: Definition, types, Phases of interpersonal relationship
- c) Human relation in context of nursing
- d) Guidance & counselling: Definition and purpose. Guidance & counselling, Basic principles of guidance & counseling Types/ areas of guidance approaches
- e) Methods of teaching.
- f) Information, Education & communication for health: Health behaviours, Health education, Planning for health education, Health education with individual, group & communicating health messages, Methods and media for communicating health message, Use of mass media

# **COMPUTERS & NURSING INFROMATICS**

- a) Introduction: Concepts of Computer, Characteristics and generation of Computers, Basic Organization of Computer.
- b) Introduction to disk operating system.
- c) Uses of computers and applications
- d) Nursing Informatics: General purposes, Patient Record System, E- Nursing, Telemedicine , Telenursing., Electronic medical records, Management information and evaluation system(MIES)

# GENERAL APTITUDE AND GENERAL AWARENESS

- a) General Intelligence.
- b) General Awareness.
- c) Keenness.
- d) Reasoning.
- e) Observancy.
- f) Rationalization.

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