

Faculty of Rehabilitation & Behavioral Sciences

Part A – Research Methodology) (Q.1–35)

1. Foundations of Research

- Meaning, objectives, and scope of research
- Types of research – fundamental, applied, qualitative, quantitative
- Research process: problem identification, literature review, hypothesis formulation
- Research ethics – consent, confidentiality, plagiarism

2. Research Design

- Experimental, descriptive, exploratory, cross-sectional, longitudinal studies
- Sampling techniques – random, stratified, cluster, purposive, convenience
- Validity, reliability, and ethical issues in research

3. Data Collection & Tools

- Questionnaires, interviews, observational techniques
- Standardization of tools and scales – Likert, semantic differential
- Clinical and field research approaches

4. Biostatistics & Data Analysis

- Central tendency & dispersion – mean, median, mode, SD, variance, IQR
- Normal distribution, skewness, kurtosis
- Tests of significance – t-test, chi-square, ANOVA, correlation, regression
- Non-parametric tests – Mann-Whitney, Kruskal-Wallis, Friedman

5. Epidemiology & Public Health Applications

- Measures of morbidity & mortality
- Disease prevalence, incidence, and causality (Bradford Hill criteria)
- Sensitivity, specificity, predictive values

6. Research Ethics & Reporting

- Principles of research ethics – informed consent, confidentiality
- Referencing styles – APA, Harvard, Vancouver, Chicago
- Writing research proposals, reports, and dissertations

Part B – Subject Specializations: Audiology, Audiology & Speech Language Pathology, Clinical Psychology (Q.36–70)

1. Audiology

- Anatomy & physiology of auditory system
- Hearing loss – conductive, sensorineural, mixed; congenital vs acquired
- Audiological assessment – pure tone audiometry, tympanometry, ABR, OAE, VRA
- Hearing devices – hearing aids, cochlear implants, assistive devices
- Tinnitus, vestibular system assessment, balance disorders
- Pediatric audiology, newborn hearing screening
- Rehabilitation strategies, auditory-verbal therapy, counseling

2. Audiology & Speech Language Pathology (ASLP)

- Anatomy & physiology of speech and language mechanisms
- Speech & language development milestones
- Disorders – articulation, phonological, fluency (stuttering), resonance, voice
- Assessment tools – CELF-5, speech audiometry, otoscopy
- Speech-language therapy – fluency shaping, Lidcombe program, PECS
- Neurogenic communication disorders – aphasia, dysarthria, apraxia
- Alternative & augmentative communication
- Rehabilitation – cleft palate, laryngectomy (electrolarynx, TEP speech)
- Indian and global disability policies, RCI norms, ICF framework

3. Clinical Psychology

- History & schools of psychology – psychoanalytic, behavioral, cognitive, humanistic
- Psychopathology – schizophrenia, mood disorders, anxiety disorders, personality disorders
- Neuropsychology – brain-behavior relationships, dementia, ADHD, autism
- Psychodiagnostics – DSM-5, ICD-11, psychological testing & assessment
- Psychological therapies – CBT, DBT, psychodynamic, Gestalt, EMDR
- Research in clinical psychology – clinical trials, psychometrics
- Community mental health & rehabilitation
- Disability Acts, rights of persons with disability, policies for rehabilitation