

RAJASTHAN PUBLIC SERVICE COMMISSION, AJMER
SYLLABUS FOR SCREENING TEST FOR THE POST OF
OCCUPATIONAL THERAPIST
(MEDICAL & HEALTH DEPARTMENT)

ANATOMY-

GENERAL ANATOMY

Cell, epithelium, connective tissue, cartilage, bone, joints, muscles, nervous tissue, embryology

REGIONAL ANATOMY

Upper limb, lower limb, thorax, head & neck, nervous system, cranial nerves

PHYSIOLOGY

GENERAL PHYSIOLOGY .

1. Cell and tissue & Body Fluid.
2. Cardio-Vascular System
3. Respiratory System
4. Digestive System
5. Reproductive System.
6. Excretory System.
7. Endocrine System.
8. Skin-Structure and functions
9. Neuromuscular physiology

BIO-CHEMISTRY

1. BIO-PHYSICS
2. CELL:
3. CARBOHYDRATES, LIPIDS & PROTEIN METABOLISM
4. VITAMINS
5. WATER AND ELECTROLYTES
6. MINERAL METABOLISM
7. NUTRITION
8. CONNECTIVE TISSUE
9. NERVE TISSUE
10. MUSCLE TISSUE
11. HORMONES

FUNDAMENTALS OF OCCUPATIONAL THERAPY

1. Definition & Scope of occupational therapy
2. Principles & techniques of Therapeutic Exs and its relation with the development of appropriate therapeutic activities
3. Principles & methods of assessment & variations in testing & recording
4. Hand functions & its evaluation technique and splinting
5. Concept & principles of adaptation & assistive technology
6. Designing of appropriate aids, appliances for the above said needs
7. Basic concepts of Human Development
8. Principles of maturation

- i) Cephalo-caudal patterns of development
- ii) Proximal distal patterns of development
- iii) Medial-lateral patterns of development
- iv) Mass to specific patterns of development
- v) Gross motor to fine motor patterns of development
- 9. Activities as a basis of Occupational Therapy
 - a) Therapeutic Activities-Definition, classification, characteristics & scope
 - b) Activities of daily living-Definition, Classification, evaluation, Various, Scales, Used & principles of training
 - c) Remedial activities for physical & intellectual need Muscle strengthening JROM, Coordination, education, memory, perception
 - d) Prevocational and vocational activities
 - e) Therapeutic Media
 - a) Purposeful activities
 - b) Crafts & play and adaptation -Tools, equipment materials, Therapeutic values & uses.
 - c) Recreation (i) Group (ii) Individual.
 - d) Activity analysis-Principles, components, selection criteria
- 10. Occupational therapy in industrial rehabilitation:
 - a) Prevocational .capacity evaluation
 - i) Work capacity evaluation
 - ii) Physical capacity evaluation
 - iii) Functional capacity evaluation
 - b) Job analysis
 - i) On Job or work site evaluation
 - ii) Work samples
 - iii) Introduction, work hardening & work conditioning
- 11. Selection & designing of basic manipulative and sensory appreciation activities for the normal child
- 12. The selection or designing of activities / exercises in relation to the appropriate development level for the child to develop co-ordination, activities of daily living, body image concept muscle strengthening, joint mobility, maintenance of tone etc.

SOCIOLOGY

- A. Definition of Sociology. Sociology as a science, uses of the study of Sociology, application of knowledge of sociology in Occupational Therapy
- B. Sociology and health
- C. Socialization and social groups
- E. Family
- F. Social problems of the disabled

PATHOLOGY

- 1. Aims and objectives of study of Pathology.
- 2. Brief outline of cell injury, degeneration, necrosis and gangrene.
- 3. Inflammation
- 4. Circulatory disturbances
- 5. Blood disorder:. Anemia, Bleeding disorder.
- 6. CVS: Heart and Blood vessels
- 7. Respiratory System : Ch. Bronchitis, Asthma, Bronchiectasis ,Emphysema, COPD etc.

8. Bones and Joint
9. PNS and Muscles: Neuropathies, Poliomyelitis & Myopathies etc.
10. CNS: Infection, Demyelinating disease, Degenerative disease etc.
11. Growth and its disorders like hypertrophy hyperplasia & atrophy.
12. Autoimmune diseases.
13. Healing and repair.
14. Metabolic disorders

MICROBIOLOGY

1. Introduction and History of Microbiology
2. Sterilization and asepsis
3. Infection- Source of infection and Entry and its Spread
4. Immunity- Natural and Acquired
5. Allergy and hypersensitivity.
6. Virology
7. Outline of common pathogens

PHARMACOLOGY

1. General Pharmacology
2. Drugs Affecting Peripheral (Somatic) nervous System
3. Anti-inflammatory drugs
4. Drugs Affecting CNS and ANS: General anesthetics, Anxiolytics and hypnotics; Alcohol, Opioid analgesis Drug dependence and abuse Antiepileptic drugs, Drug therapy for Neurodegenerative disorders.
5. Drugs Affecting Respiratory System
6. Drugs affecting exercise therapy and ADLs

OCCUPATIONAL THERAPY & INDUSTRIAL REHABILITATION

1. History of Occupational Therapy in Industrial setup
2. Definition, concept, Classification of work, Work process
3. Definition, Concept & Principles of-Ergonomics
4. Principles & process of ergonomic analysis & designing of Work set ups
5. Evaluation & assessment of Work process
6. Concept of body mechanics in industrial injuries
7. Occupational injuries of back, upper-limb & its evaluation & prevention program
8. Preparation of patient to return to job- various aspects
9. Job simulation, Work conditioning & Work hardening
10. Job site analysis and on the job evaluation
11. Standardized & non-standardized evaluative tools in Industrial rehabilitation
12. Prevocational assessment & principles of training
13. Vocational education, training & rehabilitation
14. Classification of employment
15. Human Engineering, Importance of human engineering
16. Development of Human engineering,
17. Problems in human engineering
18. Decision Making, Process and steps in decision making, Individual decision-making,
19. Decision making in organization
20. Employees, compensation Act, PWD Act' 1995 & provisions for Employees & Employers

OCCUPATIONAL THERAPY & MENTAL HEALTH

I. Basic Techniques:

1. Principle & Frame of reference, Occupational therapy in mental health.
2. Types of therapy and ADL training in mentally challenged
3. Occupational therapy evaluation in mental health

II. Occupational Therapy in common mental disorders e.g., schizophrenia, psychosis, substance abuse, attention deficit etc.,

PSYCHOLOGY

1. General Psychology
2. Methods of Introspection, observation and experimentation
3. Learning
4. Memory
5. Emotion
6. Motivation
7. Intelligence
8. Personality
9. Child Psychology and development
10. Applied Psychology including industrial and rehabilitation psychology

PSYCHIATRY

1. Definition/criteria of Normality and Abnormality contributing to normal mental health.
2. Occupation therapy : scope and practices in common psychiatric disorders

COMMUNITY MEDICINE

1. General concepts of health diseases etc.
2. CBR and Institutional based rehabilitation and strategies intervene in rural health system.
3. CBR in relation to different medical & surgical condition.

BIOMECHANICS & KINESIOLOGY

I) ESSENTIAL CONCEPTS of movement

II) KINETIC ASPECTS OF LIMB MOVEMENT:

Biomechanics of Upper Extremity, lower extremity and spine

III) BIOMECHANICS OF normal GAIT

ORTHOPAEDICS IN OCCUPATIONAL THERAPY

1. Fractures dislocations and regional orthopedic disorders in relation to orthopedic management.
2. Deformities
3. Inflammatory conditions and lesions of joints and bones. Osteomyelitis, tuberculosis, tuberculosis, pyogenic infections, Osteoarthritis, T.B. Joints, Tenosynovitis etc.,
4. Peripheral nerve injuries-their management
5. Role of occupational therapy in reconstructive surgeries
6. Principle of Tendon transfer and its occupational therapy concepts
7. Pediatrics musculo-skeletal conditions and occupational therapy

SURGERY INCLUDING OBSTETRICS & GYNAECOLOGY IN OCCUPATIONAL THERAPY

I) General Surgery

1. Principles of Pre and postoperative occupational therapy of surgical patients including surgical conditions.
2. Physiological response of the body to surgery.

3. Burns: Degrees of burns and, management and reconstructive surgery following burns and complications of Burns and occupational therapy in burn
4. Principles of tendon transplant, cosmetic surgery, types or grafts, surgery of hand with emphasis on relative occupational therapy

MEDICINE INCLUDING PEDIATRICS IN OCCUPATIONAL THERAPY

- (1) Disease of Respiratory System e.g., COPD, bronchial asthma etc.
- (2) Physiology, clinical presentation and occupational therapy in CRF.
- (3) Physiology, clinical presentation in relation to metabolic disorders.
- (4) Joint and connective disorder in relation to occupational therapy.
- (5) HIV & AIDS and primary prevention and its effect on occupation.
- (6) Physiology, clinical presentation of various vascular disorders.

PAEDIATRICS

1. Growth and development of a child from birth to 12 year Including physical, social, adaptive development
2. Cerebral palsy, etiology of prenatal, peri-natal and postnatal causes, briefly mention pathogenesis, types of cerebral palsy (Classification), findings on examination, general examination of C.N.S, Musculoskeletal and respiratory system.
3. Associated defects: Mental retardation, microcephaly, blindness, hearing and speech impairment, squint and convulsions.
4. Muscular Dystrophy: forms, modes of inheritance and clinical manifestation physical finding in relation to disabilities progression of various forms and prognosis
5. Neural tube defects : development, clinical features affecting lower limbs, bladder and bowel control and complications
6. Normal diet of new born and child: dietary calorie, fat, protein, mineral and vitamin requirement in a normal child and in a child with malnutrition
7. Respiratory disorders in relation to occupational therapy

NEUROLOGY & NEUROSURGERY IN OCCUPATIONAL THERAPY

Neurology

1. General principles of neurological and neuro physiological diagnosis.
2. Cerebro- vascular diseases
3. Parkinsonism and other extra-pyramidal disorder.
4. M S & other demyelinating disease.
5. Peripheral nerve disorders
6. Diseases of muscles (polymyositis, muscular dystrophy)
7. Neurosurgery
 - a. Head Injury - Causes- and mechanism of head injury subdural, epidural and intracranial bleeding, types neurological, disorders following head injury
8. Paraplegia, hemiplegia, quadriplegia and occupational therapy management etc.

FUNCTIONAL ASSESSMENT & OUTCOME MEASURES

Occupational therapy approaches on the basis of Assessment-

- a) Introduction to approaches
 1. Behavioral Approach
 2. Biomechanical approach
 3. Cognitive Disability Approach.
 4. Developmental Approach
 5. Neuro developmental Approach

6. Sensory Integration Approach
7. Human Occupation Approach
8. Rehabilitation Approach
9. Psychodynamic Approach
10. Spatiotemporal Approach
11. Occupational Adaptation: an Integrative approach
- b) Clinical Decision Making
- c) Rationale of Plan of Occupational Therapy Management
12. Functional Assessment scales.
13. Clinical reasoning and evidence based practice.

CLINICAL REHABILITATION

1. Introduction to Rehabilitation medicine
2. Definition concerned in the phases of disability process, explanation of its aims & principles.
Scope of rehabilitation.
3. Definition concerned with the causes of Impairment Functional limitation and Disability
4. Disability Prevention. Limitation & Rehabilitation:
5. Present Rehabilitation Services in India.
6. Legislations for rehabilitation services for the Disabled and P.W.D. Act.
7. Rehabilitation. Team & its members, their role.
8. Community & Rehabilitation including C.B.R.
9. Architectural barriers possible modifications in relation to different disabled conditions.
10. Achieving functional independence
11. Basic concepts of prosthetics and orthotics, and wheelchair prescription
12. Assistive devices and ADL

OCCUPATIONAL THERAPY IN ORTHOPAEDIC CONDITIONS

Methods of Evaluation in Occupational Therapy

Objectives functions of occupational therapy in following:

1. Deformities, joint and bone disorders including trauma
2. Inflammatory conditions of joints
3. Metabolic bone diseases
4. Amputations
5. Supportive and corrective appliances in the rehabilitation of orthopaedic cases.
6. Adapted devices in the rehabilitation of orthopaedic cases
7. Activities of daily living, testing and training in A.D.L
8. Occupational Therapy in Neurotrauma and hand injury etc.

OCCUPATIONAL THERAPY IN SURGICAL CONDITIONS INCLUDING OBSTETRICS & GYNAECOLOGY

Objectives functions of Occupational Therapy in :

- (i) Burns-emphasis on management in respect of rehabilitation.
- (ii) Thoracic surgery-Pre and postoperative management in respect of rehabilitation.
- (iii) Plastic surgery-Basic principles and applications.
- (iv) Radical Mastectomy and role of occupational therapy

OCCUPATIONAL THERAPY IN MEDICAL CONDITIONS INCLUDING PEDIATRIC

Review of medical conditions and treatment and role of occupational therapy in the rehabilitation of patients with various diseases.

- (1) Methods of evaluation in Occupational Therapy.
- (2) Concept of occupational therapy in Developmental disorders of childhood
- (3) Objective and functions of Occupational Therapy in
 - (i) Rheumatoid arthritis
 - (ii) Leprosy
 - (iii) Cerebro-Vascular accidents.
 - (iv) Cardiac-diseases (Congenital and acquired)
 - (v) Geriatric conditions
 - (vi) Cardio-pulmonary condition
- (4) Home care programme in severely 'disabled and A.D.L. in adults and children

OCCUPATIONAL THERAPY IN NEUROLOGICAL & NEUROSURGICAL CONDITIONS

Brief review of following Medical conditions, aims, various modalities, appropriate frame reference, objectives & functions of Occupational Therapy in following :

Neurology:

1. Acute infections of nervous system-Encephalitis, meningitis, transverse myelitis neuro syphilis.
2. Cerebral palsy, Hydrocephalus.
3. Poliomyelitis.
4. Cerebra-vascular accidents.
5. Common affections of peripheral, spinal & cranial nerves.
6. Myopathy & Muscular dystrophies.
7. Lesion of pyramidal, extra pyramidal, cerebellar systems.
8. Motor neuron diseases.
9. Degenerative Neurological conditions, Parkinsonism syringomyelia etc.
10. Multiple sclerosis.
11. Peripheral N. injuries & Neuropathies
12. Other common neurological disorders

Neurosurgery:

1. Pre & post operative Occupational Therapy management of neurosurgical conditions and complications, nerve repairs / nerve grafting etc.
2. Pre & post operative Occupational Therapy management in various neurosurgical conditions

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Pattern of Question Papers:

1. Objective Type Paper
2. Maximum Marks : 100
3. Number of Questions : 100
4. Duration of Paper : Two Hours
5. All Questions carry equal marks
6. There will be Negative Marking

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