The candidate should demonstrate knowledge and understanding of the following subjects, and explain their relevance to psychiatry.

I. HUMAN GROWTH AND DEVELOPMENT

Pre-conception and prenatal influences on development

Maturational process

Specific aspect of development

Family

Maturation and ageing on individuals

Position of older people in the society

II. PSYCHOLOGICAL ASSESSMENT AND PSYCHOMETRICS

Psychological Assessment

Principles of measurement

Reliability and validity

Intelligence (general and specific abilities), concept of IQ

Measurement of Intelligence using specific test and limitations of their interpretations

Neuropsychological assessment with specific reference to instrument used in clinical practice

Statistics and Epidemiology

Categorical and dimensional data

Frequency and probability distribution

Summary statistics and their presentation

Null and experimental hypothesis, significance and confidence intervals

Parametric and non-parametric statistics

Sampling techniques
Epidemiology

Treatment trials

III. SOCIAL SCIENCES

Sociology and Social administration:

Theories of Weber, Marx, Durkheim, Foucalt, Parsons, Goffman and Habermas.

Understanding of social situation and cultural differences

Agencies of socialization – family, peer, school, and media

The community, kinship, marriage and family across cultures

Social stratification and its theories, slavery, caste, class, social mobility, poverty and inequalities.

Social change, urbanization, ageing and effect on health

Concept of conformity and deviance – labeling behavior, stigma, disability and handicap

Gender issues and psychopathology, rape, domestic violence and homosexuality

Social causes of illness, life events, social support, expressed emotion and their role in psychopathology. Sick role and illness behavior.

Types of Healthcare – self care, family care, community care, professional care, including traditional medicine, and other alternative form of care. Primary, secondary and tertiary care.

Racism, migration and refugee status.

Basic Psychology

Principles of learning theory

Phenomena of visual and auditory perception

Factors affecting memory, thought, personality, motivation and emotion

Conscious and unconscious processes

Neuropsychological process
Social Psychology
Attitudes and how they are affected
Self Psychology
Interpersonal issues
Leadership, social influences, power and obedience
Inter-group behavior
Phenomenon of Aggression
Concept of Altruism

IV. NEUROSCIENCES

Neuroanatomy of the Brain and related structures
Types of cell found in the nervous system; Neurones and synapses; Glial cells and their roles
General anatomy of the brain and functions of the lobes and some major gyri – The prefrontal cortex, cingulated gyrus and limbic system. Basic knowledge of cranial nerves and spinal cord anatomy.
Blood supply and venous drainage of the central nervous system.
The cerebrospinal fluid and its circulation
Anatomy of the basal ganglia, temporal lobes (hippocampal formation and amygdala).
The major white matter connections in the brain (i.e corpus callosum, fornix, Papez circuit and other circuits relevant to integrated behavior).
Ascending and descending white matter tracts
Major neurochemical pathways including: Nigrostriatal, mesolimbic, mesocortical and tubero-infundibular dopaminergic pathways
Ascending noradrenergic pathways
Acetylcholinergic pathways
Glutamate pathways
Serotonergic pathways
Neurophysiological Processes

Basic knowledge of physiology of the neurons, synapses and receptors including synthesis and uptake of neurotransmitters. Basic knowledge of action potential, resting potential, ion influxes and channels is required.

Physiology and anatomical pathways involved in the neural and endocrine systems involved in integrated behaviours including perception, pain, memory, motor function, arousal drives (sexual behavior, hunger and thirst) motivation and emotions including aggression, fear and stress. The disturbance of these functions with relevance to organic and non–organic psychiatric disorders.

Neurodevelopmental model of psychiatric disorders and cerebral plasticity

Neuroendocrine system, in particular the secretion of hypothalamic and pituitary hormones including posterior pituitary hormones. The release factor and feedback control.

Physiology of arousal and sleep with particular reference to noradrenergic activity and the locus cereleus.

Normal electroencephalogram (EEG) and evoked response techniques. Their application to the investigation of cerebral pathology, seizure disorder and psychiatric disorders. Including effects of drugs on EEG.

Neurochemical Processes

Transmitter synthesis, storage, release and function; ion-gated receptors and G-Protein linked receptors.

Receptor structure and functions in relation to transmitters at both pre- and post-synaptic receptors.

Basic pharmacology of noradrenalin, serotonin, dopamine, gamma-aminobutyric acid (GABA), acetylcholine and excitatory amino acids and their relationship to relevant psychiatric disorders.

Neuropeptides, including corticotrophin releasing hormone, cholecystokinin, polypeptide P, enkephalins, endorphins, dynorphins.

Effects of psychotropic drugs on neurotransmission

V. PSYCHOPHARMACOLOGY

Working knowledge of psychotropic drugs and their classification

History of the development of psychotropic drugs
General principles of drug absorption, distribution, metabolism and elimination. Difference between route of administration and effect on availability.

Drugs and the blood brain barrier

Classification of psychotropic agents

Mechanisms of action, adverse effects, interactions, indications and contraindications of the various major psychotropic agents

Relevance of psychotropic drug monitoring; relationships, blood levels of psychotropic agents to therapeutic response, adverse effects and drug toxicity.

The neurochemical effects of Electroconvulsive Therapy

Common drug reactions in psychiatry

VI. GENETICS

The chromosomes, cell division, gene structure, transcription and translation. Genes and patterns of inheritance

Traditional genetic techniques including family, twin, and adoption studies.

Principles of Molecular Genetics

Specific conditions with chromosomal abnormalities e.g. Down’s syndrome, Fragile X syndrome and velo-cardio-facial syndrome.

Inherited conditions in psychiatric practice and genetic contribution to specific psychiatric disorders

Value of prenatal identification and genetic counseling

Examination Format

The examination consists of 150 multiple-choice questions in the best of five format from the areas stated in the curriculum.