SHREE GURU GOBIND TRICENTENARY UNIVERSITY • SYLLABUS & CURRICULUM FOR MD





## Postgraduate Training in Psychiatry M.D. PSYCHIATRY

## Syllabus and Curriculum

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## PREAMBLE

- Postgraduate training in Psychiatry will be imparted to doctors who have been awarded MBBS degree by a recognized Indian university, and have obtained permanent registration in a State Medical Council or the Medical Council of India.
- Postgraduate training in Psychiatry will also be imparted to doctors who hold a degree equivalent to MBBS, awarded by a foreign university and recognized by the Medical Council of India, and have obtained permanent registration in the appropriate registering authority of their native country.
- Postgraduate training in Psychiatry is designed to enable the acquisition of knowledge, skills and attitudes required for the competent and ethical practice of evidence-based psychiatry in a variety of service settings.
- The training program will include exposure to basic and allied sciences, general psychiatry, various psychiatric sub-specialities, and neurology.
- The curriculum incorporates training in contemporary educational technology and research methodology.
- The curriculum will facilitate the attainment of a wide range of competences required for the practitioner to function effectively as medical expert, communicator, collaborator, manager, health advocate, scholar and professional.
- The candidate is required to complete three years of postgraduate training and pass the qualifying examination, to become eligible for the conferment of Doctor of Medicine (MD) degree in Psychiatry.

## **OBJECTIV ES OF THE COURSE**

The overall objective of postgraduate training in psychiatry is to create a professional with competencies ranging from the clinical management of complex mental disorders to managing a population-based integrated mental health care plan.

At the end of the course, the candidate should have developed/acquired:

- 1. A firm grounding in the understanding and application of a bio psychosocial model with reference to mental health and mental disorders
- 2. Scientific knowledge in a variety of disciplines related to mental health and mental disorders
- 3. The clinical skills required to manage a range of psychiatric disorders in the areas of assessment, diagnosis, medical and psychosocial management
- 4. Humanistic attributes towards patient care including compassion and empathy
- 5. An ethical approach to psychiatric service and research
- 6. The ability to deal with the medico-legal aspects of psychiatric illness
- 7. The basic skills with regard to planning, implementing, and reporting research
- 8. The qualities to be an effective leader of a multidisciplinary mental health team and an effective teacher
- 9. The skills required to function as a mental health consultant to physicians in primary care and physicians in other specialties
- 10. The administrative and leadership abilities to contribute to various components of the national mental health program

The program will focus on problem-based learning, safe, scientific and evidence-based clinical practice, and development of skills applicable to diverse clinic, community and career settings.

## COMPETENCIES TO BE ACQUIRED DURING THE COURSE

The candidate, at the end of the post graduate training course is expected to have competencies in the following areas:

#### Clinical competence

- 1. Assess and diagnose psychiatric disorders History taking, mental state examination, physical examination, formulating a diagnosis, differential diagnosis, assessment of medical co-morbidity, investigations as appropriate.
- 2. Formulate and implement a comprehensive treatment plan that includes pharmacological and psychosocial management, rehabilitation, aftercare and engagement of care givers.
- 3. Be able to manage psychiatric emergencies.
- 4. Demonstrate empathy; Communicate effectively and tactfully with patients and care-givers
- 5. Learn the use of Evidence-Based Medicine (EBM) which refers to the process of making medical decisions that are consistent with current evidence from relevant scientific research and envisages a therapeutic alliance between research-evidence, clinicians and patients.

#### Practice competence

- 1. An understanding of the general and ethical considerations as pertaining to medical and psychiatric practice, including issues of confidentiality, patient autonomy, preventing boundary violations, respecting and ensuring human rights of patients.
- 2. Knowledge of medico-legal issues relating to admission, discharge, record maintenance, standards of care.
- 3. Proper documentation in patient records.
- 4. Arranging care for patients, collaborating with mental health professionals and other health professionals.
- 5. Knowledge and practical experience of using community networks for improving awareness about mental health and mental disorders, support networks such as self-help groups, government assistance programs etc.
- 6. Mental health care planning through participation in public mental health care initiatives including primary care, district mental health program, and school mental health programs etc.
- 7. An understanding of administrative aspects of service delivery in clinic settings as well as community-based settings.

#### Research and teaching competence

- 1. Basic knowledge of research methods.
- 2. The ability to think critically and evaluate evidence. The trainee must develop the ability to discern whether the evidence from research can be trusted.
- 3. Ability to develop research ideas, carry out a review, plan a protocol, carry out a research study or clinical audit, carry out statistical analysis, write a report, present and publish original work or reviews.
- 4. Exposure and opportunities to train in areas of recent advances such as neuroimaging, molecular genetics, neuropsychological assessments, newer psychotherapeutic interventions and other specialized areas.
- 5. Acquisition of teaching experience through involvement in undergraduate teaching as well as teaching of other health personnel.

## **COURSE CONTENT**

- Paper 1: Basic sciences related to Psychiatry
- Paper 2: General Psychiatry
- Paper 3: Psychiatric specialities
- Paper 4: Psychosomatic Medicine and Consultation-Liaison Psychiatry; Neuropsychiatry and Behavioural Neurology

Note: Postgraduate residents are expected to be acquainted with recent advances and current Indian and international research in various spheres of Psychiatry.

#### Paper 1: Basic sciences related to Psychiatry

- Concepts of mind and mental health
- Human development throughout the life cycle
- Functional and behavioural neuroanatomy
  - Developmental and topographical neuroanatomy
    - Brain cytoarchitecture
    - Central, peripheral and autonomic nervous system and relevance in psychiatry
    - Applied neuroanatomy with reference to psychiatric disorders
- Neurochemistry
  - Basic understanding of neurotransmission, including receptor structure and function
  - Neurotransmitter pathways
  - Role of neurotransmitters in human emotion, motivation, thought, memory and behaviour
  - Neurotransmitters in psychiatric disorders (eg. Dopamine and psychiatric disorders, neuro-chemical basis of addictive disorders)
- Neurophysiology & electrophysiology
  - Basic cell structure and physiology
  - Physiology of thought, cognition, mood and motor functions
  - Neural connectivity, networks and circuitries
  - Synaptic-level and subcellular phenomena involved in learning and memory
  - Physiology of appetitive behaviours (e.g. hunger, sex)
  - Normal sleep and disorders of sleep
  - Methods of physiological investigations in psychiatric disorders (e.g. Electroencephalography, Evoked Potentials, NMS, etc.)
- Neuroimaging
  - Principles and techniques of brain imaging (Computed Tomography, Magnetic Resonance Imaging, Functional Magnetic Resonance Imaging, Positron Emission Tomography, etc.) and application of imaging studies in neuropsychiatry
- Psychoneuroendocrinology
- Psychoneuroimmunology
- Chronobiology
- Neurogenetics
  - Basic principles of genetics
  - Patterns of inheritance
  - Introduction to moleculargenetics
  - Genetic epidemiology
  - Genetic studies in psychiatric disorders
  - Endophenotypes in psychiatry
  - Understanding of population genetics
  - Genome-wide association studies
- Principles of clinical pharmacology
- Psychology
  - Background to psychology, including relevance to psychiatric practice
  - Psychological development, including cognitive, language and emotional development

- Sensory processes
- Perception
- Consciousness
- Learning & conditioning
- Memory
- Thought & language
- Motivation
- Emotion
- Stress Concepts, management and prevention
- Social psychology
- Attitudes
- Intelligence
- Personality theories and application in practice
- Psychological assessment & testing Rationale, conduct and interpretation
- Abnormal psychology Explanatory paradigms of psychopathology in common mental disorders
- Methods of therapy
- Positive mental health
- Indian perspectives in understanding psychology
- Contributions of the socio-cultural sciences
  - Sociology, socio-biology and ethology
  - Anthropology and cross-cultural Psychiatry
- Epidemiology, biostatistics, research methodology and evidence-based medicine
- History of Psychiatry and historical cases in Psychiatry
- Medical education technology
- Medical informatics and the role of information technology in medical practice

#### Paper 2: General Psychiatry

#### Psychiatric examination and diagnosis

- Communication, interpersonal skills & the patient-doctor relationship
- Signs and symptoms of mental disorders (Psychopathology)
- Psychiatric history
- Mental status examination
- Clinical neuropsychological and neuropsychiatric assessment
- Structured diagnostic interviews, questionnaires and psychiatric rating scales
- Medical assessment & laboratory testing in Psychiatry
- Classification in Psychiatry

#### Core disorders and syndromes

- Substance-related disorders
- Schizophrenia
- Other psychotic disorders
- Mood disorders
- Anxiety disorders
- Somatoform disorders
- Chronic fatigue syndrome and neurasthenia
- Factitious disorders
- Dissociative disorders
- Human sexuality, sexual dysfunctions and paraphilias
- Gender identity disorders
- Eating disorders

- Normal sleep and sleep disorders
- Impulse-control disorders
- Adjustment disorders
- Personality disorders
- Suicide and deliberate self-harm
- Aggression / violent behaviour
- Relational problems
- Culture-bound syndromes

Note: The study of various psychiatric disorders has to be covered based on the following domains: Epidemiology (Indian and global research data), aetiology (biological, genetic and psychosocial factors), clinical features, diagnosis, course, outcome, prognosis, and treatment methods.

#### Additional issues that may be a focus of clinical attention

- Malingering
- Adult antisocial behaviour, criminality and violence
- Borderline intellectual functioning and academic problems
- Occupational problems
- Acculturation problems
- Phase of lifeproblems
- Noncompliance with treatment
- Age-related cognitive decline

#### Special and miscellaneous areas of interest

- Ethical issues in clinical psychiatry
- Premenstrual dysphoric disorder
- Genetic counselling in psychiatric practice
- End-of-life care and palliative medicine
- Death, dying, and bereavement
- Problems related to physical/sexual abuse or neglect
- Mental health issues in survivors of torture
- Mental health of military personnel
- Mental health issues in disasters
- Terrorism and mental health
- Assessment of disability
- Spirituality, religion and mental health
- Mental health of physicians and medical students
- Telepsychiatry

#### Treatment methods

- Clinical psychopharmacology: Pharmacokinetics, pharmacodynamics, approved indications, dosage regimens, practice guidelines and treatment algorithms, precautions & adverse effects, drug interactions, continuation treatment, maintenance treatment & prophylaxis
- Specific treatment algorithms for poor response & treatment resistance; Drug augmentation and combination strategies
- Psychopharmacology in special patient groups/populations: Pregnancy & lactation, medical comorbidity

- Psychotherapies: Cognitive therapy, behaviour therapy, interpersonal therapy, dialectical behaviour therapy, family therapy, couples therapy, group therapy and other psychotherapeutic techniques
- Rehabilitation
- Reproductive hormonal therapy
- Electroconvulsive therapy and other brain stimulation methods
- Neurosurgical treatments in psychiatric practice
- Other pharmacological and biological therapies
- Complementary and alternative medicine in Psychiatry (Yoga, music therapy, etc.)

#### Paper 3: Psychiatric specialities

#### Child Psychiatry

- Normal development during childhood and adolescence
- Psychiatric examination and psychological testing of children and adolescents
- Mental retardation (Intellectual disability / Intellectual developmental disorder)
- Learning disorders
- Motor skills disorder: Developmental coordination disorder
- Communication disorders
- Pervasive developmental disorders
- Attention-deficit disorders
- Disruptive behaviour disorders
- Feeding and eating disorders of infancy or early childhood
- Tic disorders
- Elimination disorders
- Mood disorders and suicide in children and adolescents
- Anxiety disorders of infancy, childhood, and adolescence
- Early-onset schizophrenia
- Adolescent substance abuse
- Reactive attachment disorder, stereotypic movement disorder
- Borderline intellectual functioning, academic problems, antisocial behavior in childhood or adolescence, identity problem
- Ethical and legal issues, adoption and foster care, child maltreatment and abuse, impact of terrorism on children
- Adult outcomes of childhood psychiatric disorders
- Psychiatric treatment of children and adolescents (Psychopharmacology and psychological treatments)

Note: The study of various psychiatric disorders of childhood and adolescence has to be covered based on the following domains: Epidemiology (Indian and global research data), aetiology (biological, genetic and psychosocial factors), clinical features, diagnosis, course, outcome, prognosis, and treatment methods.

#### Geriatric Psychiatry

- Normal ageing
- Epidemiology of psychiatric disorders in the elderly (Indian and global data)
- Clinical features and diagnosis of psychiatric disorders in the elderly
- Assessment of cognitive functions

- Psychopharmacology and psychotherapy in the elderly
- Holistic care of chronic and terminal illness
- Abuse and neglect of the elderly

#### Community Psychiatry

- Public health approach to mental health
- Mental health literacy, stigma, anti-stigma campaigns
- Mental health advocacy
- World mental health surveys; Burden of mental and behavioural disorders
- World mental health atlas, with special reference to India
- Pathways to psychiatric care
- Treatment gap; mental health gap action programme (WHO)
- National mental health programme, Government of India
- District mental health programme, Government of India
- Screening for common mental disorders in the community
- Primary prevention of mental disorders

#### Forensic Psychiatry

- Clinical-legal issues in Psychiatry
- Ethics in Psychiatry
- Correctional Psychiatry

#### Paper 4: Psychosomatic Medicine and Consultation-Liaison Psychiatry; Neuropsychiatry and Behavioural Neurology

#### Psychosomatic medicine and consultation-liaison psychiatry: Fundamental aspects and overview

- Historical aspects; Mind-body dualism Concept and limitations
- Brain-body medicine; Brain-body information transfer systems and mechanisms of mindbody interactions
- Classification of psychological factors affecting physical / other medical conditions
- Classification of mental disorders due to other medical conditions
- Stress theory; Neurotransmitter responses to stress; Endocrine & immune responses to stress
- Life events
- Specific versus non-specific stress factors
- Adjustment to illness and handicap
- Health psychology: Behavioural factors influencing health; symptoms and illness behaviour; health care behaviour; treatment behaviour
- Epidemiology and presentation of psychiatric disorders in medical settings
- Overview of comorbidity of psychiatric disorders with medical conditions
- Concept & scope of consultation-liaison psychiatry
- Common consultation-liaison problems
- Medically unexplained symptoms
- General principles of treatment of psychosomatic disorders; Principles of management of psychiatric disorders in the medically ill; Psychopharmacology in the medically ill
- Stress management and relaxation therapy
- Organization of psychiatric services in medical settings

#### Neurocognitive disorders

- Delirium
- Dementia
- Amnestic disorders

#### Mental disorders due to other medical conditions

- Mood disorder
- Psychotic disorder
- Anxiety disorder
- Sleep disorder
- Sexual dysfunction
- Catatonia
- Personality change

#### Substance / medication-induced mental disorders

# Neuropsychiatry and behavioural neurology; other specific physical conditions associated with psychiatric manifestations

- Cardinal manifestations of neurologic disease
- Approach to the patient with neurologic disease: Clinical history-taking, neurological and neuropsychiatric examination, diagnosis, and localisation
- Special methods of investigation in neurology (EEG, CT, MRI, PET, fMRI, etc.)
- Neuropsychiatric aspects of cerebrovascular disorders
- Neuropsychiatric aspects of brain tumours
- Neuropsychiatric aspects of epilepsy
- Neuropsychiatric consequences of traumatic brain injury
- Neuropsychiatric aspects of movement disorders
- Neuropsychiatric aspects of multiple sclerosis and other demyelinating disorders
- Neuropsychiatric aspects of HIV infection and AIDS
- Neuropsychiatric aspects of other infectious diseases (non-HIV)
- Neuropsychiatric aspects of prion disease
- Neuropsychiatric aspects of headache
- Neuropsychiatric aspects of neuromuscular disease
- Psychiatric aspects of child neurology
- Neuropsychiatry of neurometabolic and neuroendocrine disorders
- Psychiatric aspects of immune disorders
- Psychiatric aspects of nutritional disorders
- Environmental toxins and mental health

#### Psychiatric issues in other specific medical/surgical scenarios

- Psychiatric aspects of respiratory disorders
- Psychiatric aspects of gastrointestinal disorders
- Psychiatric aspects of cardiovascular disorders
- Psychiatric aspects of surgery (plastic surgery, limb amputation, organ transplantation etc.)
- Psychiatric aspects of cancer (Psycho-oncology)
- Psychiatric aspects of skin disorders (Psychocutaneous disorders)

- Psychological (emotional and cognitive) factors influencing pain; Cerebral processing of pain; Psychiatric management of pain
- Psychiatric aspects of obesity
- Psychiatric aspects of diabetes
- Psychiatric aspects of musculoskeletal disorders
- Psychiatric issues in Obstetrics and Gynaecology Infertility, pregnancy, parturition, postpartum period
- Psychiatric aspects of accidents, burns and other physical trauma
- Psychiatric issues in critical care units
- Psychiatric issues in haemodialysis units
- Psychiatric aspects of sensory disorders
- Psychiatric aspects of genetic counselling

## **TEACHING - LEARNING METHODS AND FORMATIVE ASSESSM ENT**

A standardized master list of academic programs has been prepared for the benefit of the postgraduate students. Each postgraduate resident needs to complete all these programs before the end of the course. Each postgraduate resident will receive a copy of this list at the beginning of the course. The list of postgraduate programs has been designed such that each postgraduate student will have a program once in 7-14 days. This master list is the basis of the *PG program schedule* which is made once a month but updated more frequently. These PG program updates will be disseminated electronically to all postgraduate students and faculty members of the department.

#### Seminars

Seminars shall be held at regular intervals. The seminars will be prepared and presented by the postgraduate trainee under the direct supervision of a faculty.

#### Written tests

Written tests will be conducted every month to ensure that the most important components of the course content are covered in a systematic manner during the training period.

#### Critical appraisal of published research

Research appraisal will be held at regular intervals. Relevant and suitable research articles from standard peer-reviewed journals will be selected and assigned to the postgraduate resident. The postgraduate resident will present detailed appraisals of research articles.

#### Case conferences

Case conferences will be conducted at regular intervals. Postgraduate residents will deliver exhaustive presentations of common and prototypical cases, in addition to unusual cases. These presentations will include comprehensive reports of psychopathology, differential diagnosis, prognosis and management.

#### Clinical training as a part of outpatient and inpatient services

Postgraduate residents will be trained in the practical delivery of routine outpatient and inpatient services under the close supervision of the faculty. Through active participation in these clinical services, the postgraduate student will acquire competencies in the domains of communication,

empathy, doctor-patient relationship, detailed psychiatric assessment, differential diagnosis, case formulation, construction of a management plan, and discussion of prognosis and outcome. The postgraduate student will receive hands-on training in the delivery of optimal clinical care, implementation of the treatment plan, and follow-up care. The postgraduate student shall be assigned full-time clinical responsibilities under the supervision of senior residents and consultants.

#### Psychotherapy training

Each postgraduate resident will receive supervised training and practice in psychotherapy, employing one or more psychotherapeutic techniques/models.

#### Practical demonstration

Skills pertaining to electroencephalography, clinical neuropsychological assessment and interpretation of neuroimaging will be imparted through practical demonstration.

#### Electroconvulsive therapy

The postgraduate resident will receive practical training in the administration of modified electroconvulsive therapy, under the supervision of a faculty member.

#### Training in Emergency Psychiatry

Postgraduate residents will be on call, by rotation, and will play an active role in the delivery of emergency psychiatry services under the supervision of a faculty member.

#### Community mental health services

The postgraduate student is required to participate in community mental health programs and outreach services organized by the department and the institute.

#### Undergraduate teaching assignments (Theory / Clinics)

From the second year of residency, postgraduate students will start receiving training in teaching undergraduate medical and nursing students, under the supervision of the faculty.

#### Integrated interdepartmental and institutional programs

Postgraduate residents will participate in special case conferences held in collaboration with other departments such as General Medicine and Neurology. In addition, postgraduate residents will be required to attend clinico-pathological conferences, clinico-radiological conferences, medical audit meetings, guest lectures and other scientific programs held by the institution.

#### Extramural activities

Postgraduate students will be encouraged to attend extramural academic/scientific events such as workshops, seminars, conferences, and postgraduate CME programs.

#### Schedule of postings

Postgraduate residents will receive intra-departmental training in various subspecialties such as Child Psychiatry, Geriatric Psychiatry and Consultation-Liaison Psychiatry on a daily basis, as part of

the routine outpatient and inpatient clinical services. To supplement this training, special additional intramural and extramural postings will be organized during the second year of training, based on the framework given below.

	Intramural – SGT Medical College	Extramural– PGIMS, Rohtak	Extramural - DMHP, Civil Hospital Gurugram	Total number of weeks
Community Psychiatry			2	2
Child and Adolescent Psychiatry		2		2
Addiction Medicine		2		2
Geriatric Psychiatry		2		2
Psychiatric rehabilitation		1		1
Clinical Psychology		2		2
Neuroradiology	2	1		3
Neurology	4			4
General Medicine	2			2
Weeks	8	10	2	20
Months	2	2.5	0.5	5

#### Training in research methodology

As per the regulations of the Medical Council of India, every postgraduate student admitted to a degree course should provide evidence of the following to be eligible to appear for the final degree examination:

- 1. One poster presentation
- 2. Evidence of having presented one paper at a national / state-level conference
- 3. Evidence of one research paper which should be published/accepted for publication/sent for publication during the period of his / her postgraduate studies.

The **dissertation** is a compulsory research project that has to be completed by the MD postgraduate student to be eligible to appear for the final university examination. This will be done under the guidance of a faculty member. Dissertation workshops will be conducted by the institute to train the postgraduate students in basic research methods.

Preparation of the dissertation under the supervision of a qualified guide will provide the postgraduate student hands-on training in various domains of research methodology such as *literature search, electronic reference management, study design, ethical issues in research, writing and implementing a research protocol, and the use of statistical tests for analysis of data.* The dissertation will also facilitate the acquisition of skills pertaining to *scientific written communication.* 

The protocol of the dissertation should be submitted to the university within six months of joining the course. Due care should be exercised while selecting a topic for the dissertation, especially with reference to feasibility and practicability. The postgraduate student is required to ensure that a need to change the topic will not arise at a later date. The student is required to pay special attention to ethical issues while planning the dissertation. Approval of the dissertation topic should be obtained

from the Postgraduate Training Committee and the Ethical Committee of the institute. The dissertation has to be completed and submitted to the university six months before the final examination. The postgraduate student will be allowed to appear for the final examination, only after the dissertation is approved by the examiners and accepted by the university.

Postgraduate students are required to prepare a paper based on their dissertation for publication. Proof of submission of a paper based on the dissertation work along with the letter of acknowledgement from the concerned journal is mandatory for being issued the hall ticket for the final university examination. This rule will also apply to those postgraduate students who have submitted some other paper for publication earlier during the course. In addition, they are required to present a paper or a poster based on their dissertation at a special meeting of the Scientific and Academic Forum of the institution. Presentation of the dissertation in this form does not preclude their presentation elsewhere later on.

#### Information technology

Postgraduate students will receive training in the optimal and efficient use of computers and the internet for academic, clinical and research work. A few examples are listed below.

- Conducting an online literature search using various resources, including databases such as PubMed and Proquest, and websites of journals
- Using current information from reliable sources to stay up to date with best clinical practice
- Electronic reference management using reference management software
- Retrieval of information pertaining to drugs [Drug Product Labels, Summary of Product Characteristics (SPC), etc.]
- Use of online drug interaction checkers
- Retrieval of clinical practice guidelines from standard and reliable web portals
- Effective and appropriate use of PowerPoint software
- Electronic sharing and dissemination of academic resources
- Clinical documentation (electronic medical records)

### **Continuing Evaluation and Feedback**

The performance of the postgraduate resident in all the aforementioned teaching-learning activities will be rigorously assessed on a continuous basis by the faculty members. Progress of postgraduate resident in the **academic**, **clinical** and **research** domains will be monitored. Feedback will be given to the trainee at regular intervals.

Log book: The trainee should maintain a work diary and record his / her participation in all training programs conducted by the department. Assessment of the postgraduate student's performance in various teaching-learning activities will be recorded by the faculty in the log book, thus providing a formal documented feedback of the trainee's strengths and weaknesses, with suggestions for improvement. The log book will be reviewed by the Headof the Department at regular intervals. The log book will be made available to the University for Periodic Scrutiny.

#### Mock examination

A mock examination will be conducted two months before the final qualifying examination. This will serve to prepare the trainee for the final examination.

## QUALIFYING EXAMINATION

#### Objective

- To assess the theoretical and applied knowledge gained by the trainee.
- To assess the ability of the trainee to function as a competent psychiatrist in the areas of identification, evaluation and management of psychiatric disorders.

#### Eligibility

- Satisfactory attendance and participation in all training activities as reflected in the log book.
- Approval of dissertation by the examiners.
- As per MCI regulations, every postgraduate student admitted to a degree course should provide evidence of the following to be eligible to appear for the final degree examination:
   (1) One poster presentation; (2) Evidence of having presented one paper at a national/state-level conference; (3) Evidence of one research paper which should be published/accepted for publication/sent for publication during the period of his/her postgraduate studies.

#### Theory / written examination

The theory examination comprises of four written papers as described below:

	Topics	Duration	Marks
Paper 1	Basic Sciences related to Psychiatry	3 hours	100
Paper 2	General Psychiatry	3 hours	100
Paper 3	Psychiatric specialties	3 hours	100
Paper 4	Psychosomatic Medicine and Consultation-Liaison Psychiatry;	3 hours	100
	Neuropsychiatry and Behavioural Neurology		

Distribution of marks:

	Essay typequestions		Short answer questions (Short notes)			TOTAL	
PAPER	Number	Marks per question	Sub-total	Number	Marks per question	Sub-total	MARKS
Basic Sciences	-	-	-	10	10	100	100
General Psychiatry	2	20	40	6	10	60	100
Psychiatric specialities	2	20	40	6	10	60	100
Psychosomatic Medicine and Consultation- Liaison Psychiatry; Neuropsychiatry and Behavioural Neurology	-	-	-	10	10	100	100

All papers will include questions pertaining to recent advances and current Indian and international research in various spheres of Psychiatry.

#### Practical / clinical examination and viva voce

- Evaluation of the candidate's clinical skills, and viva-voce will be conducted by a panel of four psychiatrists (recognized as postgraduate teachers by the Medical Council of India), of which at least two shall be external examiners.
- All four examiners will assess the candidate together, for all components of the practical / clinical examination and viva voce.
- The Head of the Department of Psychiatry will serve as Chairman of the Board of Examiners.
- The practical examination will include a long case and a short case in Psychiatry, and one short case in Neurology.
- Viva voce will cover various components of the prescribed course content, and will include assessment of the candidate's knowledge and skills pertaining to electroencephalography, clinical neuropsychological assessment and neuroimaging.
- The postgraduate student will qualify for the award of MD degree in Psychiatry if he/she scores a minimum of 50% marks in the theory papers, and 50% marks in the practical/clinical examination.

#### Long case presentation - Adult Psychiatry

The trainee will be given 45 minutes for evaluation, including history-taking, mental state examination and relevant physical examination. An additional 15 minutes will be given for the trainee to organize the presentation. The examiners may interview the patient in this time. The examiners may ask the trainee to elicit specific phenomena / clarify specific aspects during the viva.

#### Marking format:

Component	Marks
Adequacy of history-taking	20
Mental state examination	20
Diagnosis / Differential Diagnoses	10
Management	20
Discussion	20
Style of presentation (fluency, clarity of communication,	10
ability to organize information); Interview with patient	
Total marks	100

#### Short case - Psychiatry

The trainee will be given 25 minutes for history-taking and clinical examination and an additional 5 minutes for preparing the presentation.

#### Marking format:

Component	Marks
Adequacy of history-taking	10
Mental state examination	10
Diagnosis / Differential Diagnoses	10
Management	10
Discussion	10
Total marks	50

#### Neurology case

The trainee will be given 25 minutes for history-taking and clinical examination and an additional 5 minutes for preparing the presentation.

#### Marking format:

Component		S
Adequacy of history-taking	10	
Neurological examination	10	
Diagnosis / Differential Diagnoses	10	
Management	10	
Discussion	10	
Total m	arks 50	

#### Final viva-voce

#### Marking format:

Component	Marks
General questions covering various components of the	40
PG syllabus/course content	
Questions pertaining to psychological assessment tools	15
Interpretation of CT / MRI brain images	10
Interpretation of EEG recordings	10
Questions pertaining to dissertation	25
Total marks	100

#### Summary of distribution of marks

Examination	Marks
Theory / written examination	
- Theory paper 1	100
- Theory paper 2	100
- Theory paper 3	100
- Theory paper 4	100
Subtotal	400
Practical / clinical examination	
- Long case (Psychiatry)	100
- Short case 1 (Psychiatry)	50
- Short case 2 (Neurology)	50
- Viva voce	100
Subtotal	300
Grand total	700

#### Eligibility for award of final degree

- Acceptance of dissertation
- Pass (minimum of 50% marks) in theory / written examination
- Pass (minimum of 50% marks) in practical / clinical examination and viva voce

## **RECOMMENDED BOOKS, JOURNALS & OTHER RESOURCES**

#### Core textbooks & resources (Latest editions)

- Shorter Oxford Textbook of Psychiatry. Philip Cowen, Paul Harrison, Tom Burns. Oxford University Press.
- Introductory Textbook of Psychiatry. Black DW, Andreasen NC. American Psychiatric Publishing.
- Kaplan & Sadock's Comprehensive Textbook of Psychiatry. Benjamin J Sadock, Virginia A Sadock. Lippincott Williams & Wilkins.
- Kaplan & Sadock's Synopsis of Psychiatry. Benjamin J Sadock, Virginia A Sadock. Wolters Kluwer / Lippincott Williams & Wilkins.
- The New Oxford Textbook of Psychiatry. Michael G Gelder, Nancy C Andreasen, Juan J Lopez-Ibor Jr, John R Geddes. Oxford University Press.
- Sims's Symptoms in the mind: An introduction to descriptive psychopathology. Femi Oyebode. Saunders.
- Fish's Clinical Psychopathology: Signs & symptoms in Psychiatry. Patricia Casey, Brendan Kelly. Royal College of Psychiatrists.
- ICD-10 Symptom Glossary for Mental Disorders. World Health Organization.
- Lexicon of psychiatric and mental health terms. World Health Organization.
- Schedules for Clinical Assessment in Neuropsychiatry (SCAN) Glossary. World Health Organization.
- Campbell's Psychiatric Dictionary. Robert J Campbell. Oxford University Press.
- ICD-10 Classification of Mental & Behavioural Disorders: Clinical descriptions & diagnostic guidelines. World HealthOrganization.
- Diagnostic & Statistical Manual of Mental Disorders (DSM-5). American Psychiatric Association.
- Bickerstaff's Neurological Examination in Clinical Practice. John A. Spillane. Wiley-Blackwell.
- Lishman's Organic Psychiatry: A Textbook of Neuropsychiatry. Anthony David, Simon Fleminger, Michael Kopelman, Simon Lovestone, John Mellers. Wiley-Blackwell.
- Manter and Gatz's Essentials of Clinical Neuroanatomy and Neurophysiology. Sid Gilman, Sarah Winans Newman. Jaypee Brothers Medical Publishers.
- Clinical Neuroanatomy. Richard S. Snell. Lippincott Williams & Wilkins.
- Atkinson & Hilgard's Introduction to Psychology. Susan Nolen-Hoeksema, Barbara L. Fredrickson, Geoffrey R. Loftus, Willem Wagenaar. Cengage Learning.
- The Maudsley Prescribing Guidelines in Psychiatry. Taylor D, Paton C, Kapur S. John Wiley & Sons.
- Cognitive-behavioural therapy. A guide to empirically-informed assessment and intervention. Stefan G. Hofmann, Mark A. Reinecke. Cambridge University Press.
- Communication skills in clinical practice: Doctor-patient communication. K R Sethuraman. Jaypee Brothers Medical Publishers.
- Basic methods of medical research. A. Indrayan. AITBS Publishers.
- Medical postgraduate dissertations: A step-by-step approach. Ananthakrishnan N. United India Periodicals.
- Community Mental Health in India. B. S. Chavan, Nitin Gupta, Priti Arun, Ajeet Sidana, Sushrut Jadhav. Jaypee Brothers Medical Publishers.
- Forensic psychiatry (Psychiatry and law). Nambi S. Jaypee Brothers Medical Publishers.

#### Other textbooks and resources (Latest editions)

- Psychiatry. Allan Tasman, Jerald Kay, Jeffrey A. Lieberman, Michael B. First, Mario Maj. Wiley.
- Rutter's Child and Adolescent Psychiatry. Michael Rutter, Dorothy Bishop, Daniel Pine, Steven Scott, Jim S. Stevenson, Eric A. Taylor, Anita Thapar. Wiley-Blackwell.
- Textbook of Geriatric Psychiatry. Dan G. Blazer, David C. Steffens. American Psychiatric Publishing.
- Textbook of Psychosomatic Medicine Psychiatric Care of the Medically III. James L. Levenson. American Psychiatric Publishing.
- Lowinson and Ruiz's Substance Abuse: A Comprehensive Textbook. Pedro Ruiz, Eric Strain. Wolters Kluwer / Lippincott Williams & Wilkins.
- Clinical Manual of Emergency Psychiatry. Michelle B. Riba, Divy Ravindranath. American Psychiatric Publishing.
- Stahl's Essential Psychopharmacology: Neuroscientific Basis and Practical Applications. Stephen M. Stahl. Cambridge University Press.
- The Prescriber's Guide (Stahl's Essential Psychopharmacology). Stephen M. Stahl. Cambridge University Press.
- The ECT Handbook. Allan I F Scott. The Royal College of Psychiatrists.
- Textbook of Psychotherapeutic Treatments. Glen O. Gabbard. American Psychiatric Publishing.
- Kaufman's Clinical Neurology for Psychiatrists. David Myland Kaufman, Mark J Milstein. Elsevier / Saunders.
- Adams & Victor's Principles of Neurology. Allan H Ropper, Martin A Samuels. McGraw-Hill.
- The Mental Status Examination in Neurology. Richard L Strub, F William Black. F A Davis Company.
- Principles of Neural Science Eric R. Kandel, James H. Schwartz, Thomas M. Jessell, Steven A. Siegelbaum, A. J. Hudspeth. McGraw-Hill.
- Cognitive Psychology: Mind and Brain. Edward E. Smith, Stephen M. Kosslyn. Pearson.
- Basic Epidemiology. R Bonita, R Beaglehole, T Kjellstrom. World Health Organization.
- Basic & Clinical Biostatistics. Beth Dawson, Robert G. Trapp. McGraw-Hill / Lange Basic Science.
- Genetics Home Reference Handbook US National Library of Medicine.
- Medical Education: Principles & Practice. N Ananthakrishnan, K R Sethuraman, Santhosh Kumar. Alumni Association of NTTC, JIPMER.
- Mental health An Indian perspective 1946 to 2003. S P Agarwal. Elsevier / DGHS.
- Mental Health Act Government of India.
- Narcotic Drugs and Psychotropic Substances Act Government of India.
- Persons with Disability Act Government of India.

#### Recommended journals

- Indian Journal of Psychiatry
- Indian Journal of Psychological Medicine
- American Journal of Psychiatry
- JAMA Psychiatry
- British Journal of Psychiatry
- Journal of Clinical Psychiatry
- Psychiatric Clinics of North America
- General Hospital Psychiatry

### Recommended online/web resources

PubMed	http://www.ncbi.nlm.nih.gov/pubmed/
Proquest	http://search.proquest.com/
Cochrane Reviews	http://www.cochrane.org/cochrane-reviews
Cochrane Library	http://www.thecochranelibrary.com/view/0/index.html
Centrefor Reviews and Dissemination	http://www.crd.york.ac.uk/crdweb/
NHS Evidence	http://www.evidence.nhs.uk/
Scottish Intercollegiate Guidelines Network (SIGN) - Evidence-based clinical practice guidelines	http://www.sign.ac.uk/index.html
Epocrates online - Drug information & drug interaction checker	https://online.epocrates.com/
National Institute for Health and Care Excellence (NICE) - Clinical guidelines	http://www.nice.org.uk/
U.S. Food and Drug Administration - Drug Product Labels	http://www.accessdata.fda.gov/scripts/cder/drugsatfda/
Electronic Medicines Compendium (eMC)	http://www.medicines.org.uk/emc/
British Association for Psychopharmacology: Consensus guidelines	http://www.bap.org.uk/
Indian Psychiatric Society	http://www.ips-online.org/
American Psychiatric Association	http://www.psych.org/
American Psychiatric Publishing	http://psychiatryonline.org/
NationalInstituteofMentalHealth (NIMH)	http://www.nimh.nih.gov/index.shtml
World Federation for Mental Health	http://www.wfmh.org/
World Health Organization	http://www.who.int/en/
Centre for Evidence-based Medicine at the University of Oxford	http://www.cebm.net/
Centre for Evidence Based Mental Health	http://www.cebmh.com/
Evidence - based practice: Duke University Medical Center Library & Archives	http://guides.mclibrary.duke.edu/ebm
Zotero (Electronic reference management)	http://www.zotero.org/

## MODEL QUESTION PAPERS

#### Paper 1: Basic sciences related to Psychiatry

Time: 3 hours • Maximum marks: 100

Answer all questions

Marks

Write notes on:

1. Prefrontal cortex	10
2. Synaptic plasticity & learning	10
3. Hypothalamic-pituitary-adrenal axis & its relevance to Psychiatry	10
4. Functional magnetic resonance imaging & its role in neuropsychiatry	10
5. Types of receptor-drug interactions & relevance to Psychiatry	10
6. Instrumental conditioning	10
7. Assessment of intellectual abilities	10
8. Carl Gustav Jung	10
9. Culture, migration and mental health	10
10. Study designs in medical research	10

#### Paper 2: General Psychiatry

Time: 3 hours • Maximum marks: 100

#### Answer all questions

	Marks
<ol> <li>Outline the neurobiological theories of schizophrenia and elucidate the neurodevelopmental hypothesis.</li> </ol>	20
<ol><li>Discuss the efficacy and current status of cognitive behavioral therapy for psychiatric disorders.</li></ol>	20
3. Write short notes on:	
a) Structured diagnostic interviews in Psychiatry	10
b) Continuation and maintenance treatment of bipolar affective disorder	10
c) Epidemiology of alcohol dependence	10
d) Obsessive compulsive spectrum disorders	10
e) Alternative DSM-5 model for personality disorders	10
f) Mechanisms of action and therapeutic indications of second-	10

generation antipsychotics

## MODEL QUEST ION PAPERS (continued)

#### Paper 3: Psychiatric specialities

Time: 3 hours • Maximum marks: 100

Answer all questions

	Marks
<ol> <li>Elucidate the clinical features, diagnosis and management of attention- deficit/hyperactivity disorder.</li> </ol>	20
<ol><li>Elucidate the objectives, progress, problems &amp; manpower development schemes of the National Mental Health Program (NMHP) of India.</li></ol>	20
3. Write short notes on:	
a) Clinical evaluation of dementia	10
<ul> <li>b) Principles of psychopharmacological treatment of geriatric mental disorders</li> </ul>	10
c) Mental Health Gap Action Programme	10
<ul> <li>d) Internet addiction among children &amp; adolescents - Current concepts &amp; clinical approach</li> </ul>	10
e) Amendments in MHA (Mental Health Act) -1987 and PWD (Persons with disability) Act - 1995 and their implications on mental health care	10
f) Legal issues regarding mental health & marriage	10

## Paper 4: Psychosomatic Medicine and Consultation-Liaison Psychiatry; Neuropsychiatry and Behavioural Neurology

Time: **3 hours** • Maximum marks: **100** 

Answer all questions

Write notes on:

#### Marks

1. Brain-body medicine and brain-body information transfer systems	10
2. Stress theory and neurophysiological responses to stress	10
3. Concept and scope of health psychology	10
4. Aetiology and principles of management of delirium	10
5. Mood disorder due to other medical conditions	10
6. Neuropsychiatric aspects of epilepsy	10
7. Diagnosis and management of psychiatric syndromes in Parkinson's disease	10
8. Role of psychological factors in pain	10
9. Psychiatric aspects of cardiovascular disorders	10
10. Psychocutaneous disorders	10