ST. JOSEPH’S COLLEGE FOR WOMEN (AUTONOMOUS) VISAKHAPATNAM

III SEMESTER **PSYCHOLOGY**  TIME:4HRS

PSY-Ma4-3601(4) **BASICS OF NEURO PSYCHOLOGY** Marks:100

w.e.f:2024 – 2025(23AK) Admitted batch **SYLLABUS**

**Learning Outcomes:**

At the end of the course the student would be able to

* Understand the intricate connection between the brain and behaviour.
* Understand the change that occur in brain over life span
* Learn how the changes in brain cause behavioural changes
* Learn how the brain functions can be assessed
* Learn about the cases of brain damage and problems caused due to it.
* Understand the ways in which brain recovers from damage on its own.
* Learn about various kinds of interventions that help people recover from damage

**COURSE OBJECTIVES:** To enable the students to

1) To learn the physiology of the nervous system, including an understanding of the neuron, the nerve impulse, and the synapse.

2. To learn the divisions of the nervous system from the spinal cord to the different parts of the brain as well as nervous system development.

3. To introduce the different physiological systems involved in behavior (e.g., vision, hearing, language, etc.)

4. To learn the behavioral consequences of damage to the physiological systems.

**UNIT- I:** Definition, Nature and scope of clinical neuropsychology, Functions of Neuropsychologists, History, Branches of Neuropsychology, Methods of study of research in neuropsychology-Neurohistology, Radiologic Procedures, Electrophysiological Procedures, Imaging of Brain metabolism, Magnetic Imaging. Ethical issues in research

**UNIT- II:** Introduction to developmental psychology; Brain development; Neuropsychology of mental development; Neuropsychology of developmental abnormalities; Neuropsychology of remediation of childrenBehavioural Dysfunctions and Symptoms: Agnosia; Aphasias; Apraxia; Amnesia

**UNIT- III:** Cerebrovascular Disorder: Types- Transient Ischemic Attack; Infarction; Hemorrhage. Causes, Symptoms and ManagementTraumatic Head Injuries: Concussion, Closed Head Injury and Penetrating Head Injury; Causes, Symptoms & Management

**UNIT- IV:** Intra Cranial Tumors- Infiltrating and non-infiltrating tumors, Causes, symptoms & managementDegenerative disorders: Parkinson’s Disease and Alzheimer’s Disease, Causes, Symptoms and management

**UNIT-V:** Practice of neuropsychological assessment; Basic concepts, Neuropsychological examination procedures; Neuropsychological assessment interpretation; important neuropsychological testsNeuropsychological Rehabilitation: Recovery of function, Plasticity, Adaptation & overview of Rehabilitation process.

PSY-Ma4-3601(4) ::2::

**Practicum:**

Any 2 practicum pertaining to the syllabus

**REFERENCES:**

Filsknow, S.B. and Boll, J.J. (1981). Handbook of clinical Neuropsychology. New York :Johnwiley.

Gazzaniga, M.S., Lvey, R.B. and Magun, G.R. (2002) Cognitive Neuroscience: The Biology of the Mind. New York: Norton & Company.

Walsh, K. (1994). Neuropsychology: A clinical approach. New Delhi : Churchill Livingstone.

Zillmer, E.A. & Spiers Mary V. (2001). Principles of Neuropsychology. Stanford: WadsworthThomson.

Kandel, E.R. Schwartz, J.H. &Jessel, T.M. (2000). Principles of neural science (4th .ed.), New York: McGraw-Hill.

Zillmer, E.A., Spiers, M.V. & Culbertson (2008). Principles of Neuropsychology (2nd ed.), Wadsworth: Cengage Learning.

Blackmore, S. (2003). Consciousness: An introduction. London: Hodder & Stoughton.

Essential Reading / Recommended Reading

Walsh K. (2008). Neuropsychology. New Delhi: B.I. Churchill Livingstone Pvt. Ltd

**Suggested Co-Curricular Activities**

1. Assignments

2. Seminars, Group discussions, Quiz, Debates on related topics

3. Prepare charts and models of related topics

4. Invited lectures and presentation on related topics by field experts

\*\* \*\* \*\*