JYOTI NIVAS COLLEGE AUTONOMOUS
SYLLABUS FOR 2019 BATCH AND THEREAFTER

Programme: INT BSc. MSc **Semester: III**

PAPER I
PHYSIOLOGICAL PSYCHOLOGY

Course Code: 18III IS303 **No. of Hours: 60**

COURSE OBJECTIVES:

- To learn and understand basic processes and applications of the physiology involved in psychology
- To learn the physiology of the nervous system, brain functions, glands and sensory organs.
- Know the research methods used in psychology, apply their knowledge in research.
- To learn the behavioural consequences of damage to the physiological systems**.**

LEARNING OUTCOMES:

On successful completion of this unit, students will be able to:

- Identify the structures and functions of neurons;
- Describe the processes involved in the generation and propagation of a neural impulse;
- Recognize the major anatomical divisions of the human brain;
- Apply knowledge of the physiological bases of behaviour to real-world issues; and
- Explain the physiological processes underpinning various psychological phenomena.

UNIT I

CHAPTER 1 - INTRODUCTION TO PHYSIOLOGICAL PSYCHOLOGY AND NEURONAL FUNCTIONS **12HRS**

Nature and scope of physiological psychology; Methods of study.

Structure and types of neurons; Conduction and transmission; Structural, chemical and electrical components of the nervous system; Major divisions and functions of the nervous system-CNS and ANS.

UNIT II

CHAPTER 2 - BRAIN PLASTICITY **12 HRS**

Development of the nervous system ; Brain damage and Neuroplasticity ; lateralization and split brain

UNIT III

CHAPTER 3 - HORMONES AND BEHAVIOUR **12 HRS**

Nature of endocrine functions; Hormones for cellular functioning.Stress and cardiovascular system; Hormones for growth- sexual behaviour and reproduction.

UNIT IV

CHAPTER 4 - MECHANISIMS OF SENSATION **12 HRS**

Structural, chemical, electrical and genetic correlates of vision, audition, olfaction, gustation and tactile sensation.

UNIT V

CHAPTER 5 - MECHANISIMS OF MOVEMENT: **12 HRS**

Muscles, Reflex control of movement, Control of movement by the brain.

REFERENCE:

1. John T Cacioppo, Laura A Freberg (2019) Discovering Psychology: The science of the mind.3rd edition.eBookwww.cengage.com
2. Neil R Carlson (2017) Foundations of Behavioural Neuroscience, 9thedition, Pearson Education Inc.
3. Neil R Carlson (2017) Foundations of Physiological Psychology 6th edition, Pearson Education Inc.
4. N R Carlson (2017) Physiology of Behaviour,12th edition, Pearson Education Inc.
5. John R J Pinel (2017) An Introduction to Biopsychology.9th edition.
6. Francis Leukel (2005) Introduction to Physiological Psychology, 3rdeditionIndian edition CBS Publishers and Distributors, Delhi.
7. Charles F Levinthal (1999) Introduction to Physiological Psychology 3rd edition, Prentice Hall of India Pvt. Ltd., New Delhi.

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