

**BA III Psychology Semester V**

**From 2016-17**

**Title-Experimental Psychology Theory**

**DC IX**

**Computer code 545910**

**No. of Credits-4,**

**Marks 100 (25 internal, 75 external)**

**Course Objectives:**

The learner will be able to

- Explain basic concepts of experimental Psychology
- Describe experimental designs
- Generate ideas for research,
- Develop hypotheses and operational definitions for variables.

**Module I: Introduction to Experimental Psychology**

Objectives: After studying the module learner will be able to:

- explain the Experimental method
- define key concepts in experimental psychology
- describe the importance of control in experiments
- describe different types of variables

1.1 Experimental Method

1.2 Concepts of Variable- theoretical and operational definition, types of variables

1.3 Control in experimentation

1.4 Limitations of experimental method

**Module II: Experimental Designs**

Objectives: After studying the module learner will be able to:

- differentiate between experimental and correlational designs

- explain dimensions of experimental designs
- generate ideas for research, as well as develop hypotheses and operational definitions for variables.
- design an experiment with single IV and two IVs

2.1 Experimental and correlational designs

2.2 Dimensions of experimental designs

2.3 Designs with single IV and single DV

2.4 Designs with two Independent variables

### **Module III: Psychophysics**

Objectives: After studying the module learner will be able to:

- Describe the basic concepts of psychophysics
- Relate physical stimuli and psychological experience
- Calculate  $a_l$ ,  $d_l$  and PSE
- Describe traditional and modern methods of psychophysics

3.1 Basic concepts in Psychophysics: Sensitivity, Threshold, Point of Subjective Equality, Constant and Variable Errors

3.2 Method of Limits: Computation of RL and DL

3.3 Method of Constant Stimuli: Computation of RL and DL

3.4 Method of Average Error: Computation of PSE & CE

3.5 Modern Psychophysics: Signal Detection Theory

### **Module IV: Learning and Conditioning**

Objectives: After studying the module learner will be able to:

- Explain the effect of serial position curve
- Differentiate between classical conditioning and operant conditioning

- Distinguish between the concepts of generalization and discrimination
- Explain transfer of training

4.1 Attributes of verbal learning, Factors affecting learning

4.2 Serial position curve

4.3 Methods of presenting verbal material-serial and complete

4.4 Classical and instrumental conditioning

a. Shaping, generalization, and discrimination

b. Contingency verses contiguity

4.5 Transfer of training

### **Books for Reading:**

Kothurkar, and Vanarase (1986): “Experimental Psychology: A Systematic Introduction”, Wiley Eastern Ltd.

Postman, L. & Egan, J.P. (1949), reprint 2009/2012. Experimental psychology: An introduction. ND: Kalyani Publication.

Snodgrass, J. G., Berger, G. L., & Haydon, M. (1985). HUMAN EXPERIMENTAL PSYCHOLOGY. Oxford University Press.

### **Reference Books**

Christensen, L. (2012). Experimental Methodology. Pearson.

D’Amato, M.R. (2009). Experimental psychology: Methodology, psychophysics and learning. N.D.: Tata McGraw-Hill.

Desai, B. and Abhyankar, S.C. (2001). Prayogik Manasashastraani Samshodhan Paddhati. Pune: Narendra Prakashan.

Mishra, B.K. (2008). Psychology: The study of human behavior. N.D.: PHI Learning.

Myers, A. and Hansen, C. (2002). Experimental Psychology. U.S.: Thomson Wadsworth.

Rajamanickam, M. (2005). Experimental Psychology: with Advanced Experiments, Volume 1 & 2. New Delhi: Concept Publishing Company

Solso, R.L., MacLin, M.K. (2008). Experimental psychology: A case approach. N.D.: Dorling Kindersley Pvt. Ltd.

Woodworth, R.S. & Schlosberg, H. (reprint 2008, 6th ed.), Experimental Psychology. ND: Oxford & IBH Publishing Co. Pvt. Ltd.

Zachmeister, J.E., Zachmeister, E.B., and Shaughnessy, J.J. (2009). Essentials of research methods in psychology. N.D.: Tata McGraw-Hill.