

# PSYCHOLOGY (855)

## CLASS XI

There will be **two** papers in the subject:

**Paper I** - Theory: 3 hours .....70 marks

**Paper II**- Practical Work: .....30 marks

both heredity and environment interact to produce behaviour (Twin studies, Adoption Studies, Separated Twin Study).

### PAPER - I (THEORY) – 70 Marks

#### 1. The Subject Psychology

- (i) Definition of Psychology; schools of thought- Structuralism, Functionalism, Behaviourism, Psychoanalysis, Gestalt psychology, Psychology and other disciplines.

*Definition of Psychology, meaning of the terms: behaviour, stimulus and response. The eclectic approach of modern Psychology. Main features of the schools of Structuralism, Functionalism and Behaviourism, Psychoanalysis, Gestalt psychology (two Psychologists of each approach and their relevant concepts).*

*Psychology and other Disciplines: Relationship between Psychology and Economics, Political Science, Law and Criminology, Sociology, Computer Science, Mass Communication and Music & Fine Arts.*

- (ii) Fields of Psychology – clinical, counselling, developmental, educational, organizational and social.

*The general importance and aims of studying Psychology and its special benefits. Applications - different branches and the kind of work done in special fields - clinical, counselling, developmental, educational, organizational and social (in brief).*

- (iii) Heredity and Environment – meaning of the term ‘heredity’; basic principles and mechanism of heredity (genetic). Meaning of the term ‘environment’; importance of both heredity and environment in behaviour.

*The definition and role of chromosomes and genes (dominant and recessive); the laws of heredity: uniformity and variability. Significance of environment: physical and social. Heredity related diseases: Mental Retardation and Huntington’s disease. How*

#### 2. Methods of Psychology

- (i) Scientific Methods in Psychology - observation, case study, surveys, experimentation – steps. Psychological tests and their uses, ethical issues.

*The application of scientific methods in the study of behaviour. What is meant by scientific observation? Field study; controlled and uncontrolled observation; longitudinal and cross-sectional studies; the case history method; the experimental method - variables and controls - steps in an experiment; surveys and use of questionnaires/self-reports. One advantage and one disadvantage for each method of Psychology. Meaning of samples (random, biased, representative); meaning of population. Psychological tests – characteristics, definition, uses and types.*

*Ethical Issues- voluntary participation, informed consent, debriefing, sharing results of the study, confidentiality of data.*

- (ii) Interpretation of research results – use of statistics in interpretation of data - understanding of why statistics is used (descriptive & inferential). Basic statistical concepts – statistics, sample, population.

*Why statistics is used in Psychology - interpretation of findings: describing and summarizing data, comparing individuals/groups, investigating relationships between variables, predicting. Descriptive statistics - for summarizing scores. Inferential statistics - to determine whether observed differences between groups are likely/unlikely to have occurred by chance.*

*How scores are grouped into frequency distributions; central tendency of a frequency distribution - mean, median, mode and when each measure is used; dispersion: the extent to which scores are spread out - range, variance, standard deviation; why both*

central tendency and variability are important in psychology.

### 3. Attention and Perception

- (i) Nature of attention - its inner and outer determinants.

*The importance of attention in perception - how both physical factors such as size, colour, movement, change, intensity, contrast and psychological factors such as need, interest and emotion determine attention and perception.*

- (ii) Perceptual processes - difference between sensation and perception. Organizational principles of perception - laws, constancies, depth and colour perception.

*Process involved in transforming sensation to perception. Important factors in perceptual process - figure and ground, laws of grouping: similarity, proximity, continuation, simplicity, good figure; constancy of size, shape, colour and brightness; factors involved in depth perception - monocular and binocular cues; attributes of colour - hue (definition only); wavelength (sound waves), brightness and saturation; after-images - positive and negative.*

- (iii) Errors in perception - illusions of size and shape

*False interpretations - illusions: Muller-Lyer, Height - Width, Ponzo, Zoellner, Poggendorf.*

### 4. Emotions and Motivation

- (i) What is meant by emotion; the basic emotions.

*Subjective and cognitive experience, physiological basis of emotion - role of thalamus, hypothalamus, limbic system and cortex, reactions and overt expression. Primary emotions - fear, anger, joy, sorrow, affection.*

- (ii) Theories of emotion dealing with physiological, subjective and cognitive aspects.

*James Lange, Cannon Bard, Schachter - Singer theories.*

- (iii) What is meant by motives, needs and instincts.

*Motivation as an internal force generating certain behaviour - biological needs and homeostasis; instincts as unlearned and*

*physiological desires. Intrinsic - the desire to perform activities for their own sake.*

- (iv) Theories of Motivation.

*Pull and push theories, Optimum Arousal theory and Expectancy theory - Graphic representation of Maslow's Needs Hierarchy.*

- (v) Social motives.

*Three distinctively human motives: Achievement - accomplishing difficult tasks; Power - exerting influence over others; Aggression - learning and control of human aggression, causes and effects.*

- (vi) Frustration - blocking of motives; conflict among motives.

*Frustration as a result of motives not finding free or adequate expression. Different types of conflict among motives: approach-avoidance, avoidance-avoidance, multiple approach-avoidance (with examples).*

### 5. Learning

- (i) What is meant by learning; how learning takes place - Classical and Operant Conditioning; Insight learning, Observational Learning and Learning Styles.

*Definition of learning - Pavlov and Classical Conditioning; Thorndike and Trial and Error; Skinner and Operant Conditioning; experiments, findings and principles established. Insight and Observational Learning - Kohler and Bandura's studies. Learning Styles - Auditory, Visual and Kinesthetic.*

- (ii) Learning disabilities: definition and types.

*Characteristics of the disabilities - Dyslexia, dyscalculia, dysgraphia, dyspraxia. Characteristics of each learning disability. Remedials for Dyslexia only.*

### 6. Remembering and Forgetting

- (i) The memory system - how it works - different models.

*Sensory memory, Short and Long term Memory - encoding, storage, retrieval. Terms like iconic image, free recall, serial position effects, recency effects, primacy effects, episodic, working memory. Semantic and Procedural Memory. Processing memory - the Atkinson Shiffrin Model and Parallel Distributed Processing.*

(ii) Why and how forgetting occurs.  
*Trace decay, retro and proactive interference, retrieval failure, amnesia - retrograde and anterograde; Alzheimer's disease; Dementia (symptoms).*

(iii) How memory can be improved.  
*Attention, use of imagery, Mnemonic devices, application of principles of learning.*

## 7. Thinking, Problem Solving and Creativity

(i) What is meant by thinking.  
*Definition and basic elements of thought. Nature and elements of thinking: images, visual image, concepts and language - interdependence of language and thought; different kinds of thinking: convergent, divergent, creative, goal-oriented and aimless thinking.*

(ii) Concepts and how they are formed.  
*Definition - importance of concepts in thinking - artificial, natural, simple and complex concepts.*

(iii) Reasoning - how it is carried out; common errors in reasoning, how reasoning can be made more effective. Decision making and problem solving - heuristics and algorithms.

*Reaching specific conclusions from available information - deductive and inductive reasoning; common errors - faulty premises, biases, fallacy of single cause. Improving reasoning - avoiding errors, examining premises and ambiguities, guarding against emotion. Decision Making and Problem Solving - steps involved, optimum expected utility, means-end-analysis, analogy.*

(iv) Creative thinking - what is meant by convergent and divergent thinking; stages in

creative thinking, how creativity can be fostered.

*Use of divergent thinking in creativity - stages in creative thinking, preparation, incubation, illumination, verification/validation. How creativity may be encouraged: enrich knowledge and experience, encourage independence, curiosity and promote positive mood.*

## PAPER - II (PRACTICAL WORK) – 30 Marks

Candidates will be expected to have completed **two** studies / experiments from any chapter covered in Theory. Assessment will be based on a written report which should cover –

- (I) Aim
- (II) Basic concept: Definition of concepts used and related theory. Identification of variables – independent and dependent.
- (III) Method -
  - (i) Sample of the Study
  - (ii) Procedure followed (data-collection, nature of raw data)
  - (iii) Treatment of Data
  - (iv) Results & Discussion
  - (v) Conclusion
- (IV) Bibliography

Mark allocation **per study** [15 marks]:

Basic Concept	3 marks
Method (correctness of procedure)	4 marks
Results and discussion	4 marks
Viva	4 marks