

# PSYCHOLOGY (855)

## Aims:

(i) To develop an understanding of human behaviour: the nature of individuals and of members of social groups.

(ii) To develop an understanding of the methods of research and study employed in Psychology.

(iii) To develop an appreciation of the practical value of Psychology and its applications in daily life.

## CLASS XI

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

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

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

### PAPER - I (THEORY) – 70 Marks

**Part I (20 marks)** will consist of **compulsory** short answer questions relating to the fundamental aspects of the entire syllabus.

**Part II (50 marks)** will consist of **two** sections, A and B.

Candidates will be required to answer **two** out of **three** questions from Section A and **three** out of **five** questions from Section B. Each question in this part shall carry **10 marks**.

### SECTION A

#### 1. The Subject Psychology

(i) Definition of Psychology; Nature – bio science, social science or pure science; schools of thought – Structuralism, Functionalism, Behaviourism, Psychoanalysis, Gestalt psychology.

*Definition of Psychology, meaning of the terms behaviour, stimulus and response. Subject matter / nature of Psychology as a bio science, social science or pure science. 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).*

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

#### 2. Methods of Psychology

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

*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.*

(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 and colour; factors involved in depth perception -monocular and binocular cues; how colour is perceived - biological and psychological factors ; attributes of colour - hue, wavelength, brightness and saturation; laws of colour mixture; colour blindness, adaptation and after-images.*

- (iii) Errors in perception - illusions of size and shape; what is meant by extra-sensory perception (ESP).

*False interpretations - illusions: Muller-Lyer, Height -Width, Ponzo, Zoellner, Poggendorf (details of experiments are required); ESP - perceptions not based on any of the known senses (general understanding of ESP).*

## SECTION B

### 4. Emotions and Motivation

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

*Subjective and cognitive experience, physiological basis of emotion, 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; evidence indicating the existence of unconscious motives. 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-approach, 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 (symptoms and management). Adjustment problems and remedials.*

## 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, primary 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 pro active interference, amnesia - retrograde and anterograde; Alzheimer's disease; Dementia.*

- (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 case, rationalization, hindsight. 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 |

## CLASS XII

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

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

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

### PAPER - I (THEORY) – 70 Marks

**Part I (20 marks)** will consist of **compulsory** short answer questions relating to the fundamental aspects of the entire syllabus.

**Part II (50 marks)** will consist of **two** sections, A and B.

Candidates will be required to answer **two** out of **three** questions from Section A and **three** out of **five** questions from Section B. Each question in this part shall carry **10 marks**.

### SECTION A

#### 1. Intelligence and Ability

- (i) Intelligence: what is meant by intelligence - theories regarding the nature of intelligence; how intelligence is measured - the concept of IQ, intelligence tests – Individual Tests, Group Tests, Culture Fair Tests. Levels of intelligence and associated characteristics.

*Intelligence: definition of intelligence (David Wechsler); what is meant by intelligence - theories regarding the nature of intelligence; Theories of Intelligence: Two Factor Theory – Charles Spearman; Primary Mental Abilities – Thurstone; Raymond Cattell – Fluid and Crystallised Intelligence; Guilford’s Structure of Intellect Model. Modern Theories: Information Processing; Triarchic Theory – Sternberg; Theory of Multiple Intelligence – Howard Gardner. How intelligence is measured - the concept of IQ; Intelligence Tests – Individual Tests - Stanford Binet, Wechsler, Group Tests – Raven’s Progressive Matrices, Culture Fair Tests – Cattell’s Culture Fair Test. Test details (Aim, history, description, scoring and uses) should be included; Levels of intelligence and associated characteristics (from gifted to below average).*

- (ii) Aptitude, Achievement and Interest: meaning of these terms. Reason for their assessment and means of assessment (different tools/ tests) used.

*What is meant by Aptitude - when aptitude needs to be assessed - the GATB (General Aptitude Test Battery); meaning and usefulness of Achievement tests; why and how Interest is measured - the SCII (Strong Campbell Interest Inventory).*

#### 2. Personality

- (i) What is meant by Personality.

*Definitions of personality – Allport, Cattell, Eysenck.*

- (ii) Theories of Personality: Type Theories, Psychoanalytic Theory - Freud’s structure of personality; psycho-sexual stages of development; Post Freudians (in brief); Humanistic - Rogers and Maslow; Traits - Allport, Cattell; Social/Behavioural Learning - Bandura and Rotter.

*Type Theory: Sheldon, Kreshtmer, Hippocrates, Friedman, Charak Samhita of Ayurveda. Psychoanalytic Theory of Personality: Freud’s levels of consciousness, structure of personality - Id, Ego and Superego; principles on which they function; Psychosexual stages of development and fixation; Post Freudians: Erik Erikson, Horney; Humanistic theories of Rogers (concept of fully functioning persons) and Maslow (self actualization). Traits: Allport (central, secondary and cardinal traits), Cattell (source and surface traits). The five-factor model of Costa and McCrae. Social Cognition and Social Learning theories of Bandura and Rotter (Identification and explanation of concepts in each theoretical framework).*

- (iii) How personality is assessed: reports, inventories (MMPI), projective techniques - Rorschach Inkblot Test and Thematic Apperception Test.

*The use of Self Reports - inventories/questionnaires in assessing Personality - an understanding of the MMPI (Minnesota Multiphasic Personality Inventory); what is meant by Projective Techniques - how the Rorschach Inkblot and TAT (Thematic Apperception Test) are used (Test details should include procedure, scoring and results).*

## SECTION B

### 3. Lifespan Development

- (i) Meaning of Development, growth and maturation.

*Why is the study of lifespan development important? Determinants – interaction of heredity and environment, context of development – Bronfenbrenner's Ecological System Theory.*

- (ii) Infancy - motor, cognitive development, socio-emotional development.

*Motor – milestones; cognitive – Piaget's Sensory Motor Stage; socio-emotional development – emergence of attachment. Mary Ainsworth's & Lamb's strange situation test.*

- (iii) Childhood - motor, cognitive development, socio-emotional development.

*Motor development; cognitive development – Piaget's Theory (Preoperational, Concrete and Formal Operational); emergence of self – gender awareness, gender identity, stability, consistency, stereotype role, sex-category, constancy; Emergence of peer relationship. Moral development – Kohlberg's perspective Experiment on Moral Dilemma – pre-conventional, conventional and post conventional morality.*

- (iv) Adolescence - physical changes, cognitive development, socio-emotional development; some major concerns.

*Physical changes at puberty; Cognitive development – Piaget's Formal Operational Stage; Socio-emotional development - forming an identity, dealing with sexuality and gender identity; some major concerns – delinquency, substance abuse (drugs and alcohol) – meaning of substance abuse, symptoms and treatment; eating disorders - bulimia, anorexia.*

### 4. Stress and Stress Management

- (i) Meaning of stress - its basic nature.

*Stress as a process - stressors (negative and positive events); results of overload; the stages of GAS or the General Adaptation Syndrome (Selye's model). Cognitive appraisal of stress – primary and secondary.*

- (ii) Common causes of stress.

*External/situational: major life events, minor hassles of everyday life, work-related causes, the physical environment.*

*Internal/dispositional: Personality variables-traits and types.*

- (iii) Effects of stress on health and performance.

*Upsets the internal mechanism and balance - immune system affected, hypertension, heart problems, ulcers, diabetes, asthma (each effect to be briefly explained). Relation between stress and performance - burnout.*

- (iv) Stress management - ineffective and effective strategies of handling stress.

*Coping with stress: Ineffective strategies - defense mechanisms - rationalization, projection, reaction formation, regression, repression (each to be briefly explained), displacement, sublimation; Effective strategies - relaxation training and yoga. Effective lifestyles: stress cycles – distress and wellness.*

### 5. Psychological Disorders and Psychotherapy

- (i) Meaning of "Abnormal behaviour" - biological, psychological and socio-cultural perspectives. Principles of classification of psychological disorders with reference to DSM IV.

*Different views of "abnormal" behaviour - the statistical stand - the biological/medical approach - the psychodynamic perspective - the sociocultural dimension; why classification of disorders is necessary - an understanding of the Diagnostic and Statistical Manual of Mental Disorders – IV (brief explanation of each Axis).*

- (ii) Characteristics of some psychological disorders: Anxiety - generalised, phobic, obsessive-compulsive; Mood - bi-polar, depression; personality - anti-social, histrionic, avoidant, dependent, passive-aggressive (causes and symptoms of all).

*What is meant by anxiety - different forms of anxiety disorders: phobias, obsession - compulsive disorders; Mood disorders - characteristics of severe depression, manic-depressive or bipolar disorder; personality - anti-social, histrionic, avoidant, dependent, passive-aggressive (causes and symptoms).*

- (iii) Schizophrenia - meaning; main types; characteristics.

*Basic nature of Schizophrenia - characteristics of Disorganized Catatonic and Paranoid Schizophrenia (symptoms).*

- (iv) Psychotherapy - Psychoanalysis; Client-centred; Behavioural. Rehabilitation.

*What is meant by Psychotherapy - central features of psychodynamic therapies - free association, dream analysis, transference and counter transference; the principles on which client centred therapy has been developed. Behavioural therapies based on classical and operant conditioning and modelling, psycho social; rehabilitation.*

## 6. Social Thought and Social Behaviour

- (i) Social Perception - attribution or the process through which people try to understand the reasons for others' behaviour.

*How people determine whether others' behaviour is a result of internal causes or external factors - biases in forming judgments (attribution). Explain with examples each of the following biases - the person positivity bias, motivational biases, self serving bias, the false consensus effect, automatic vigilance, motivated scepticism, counterfactual thinking.*

- (ii) Social Influence- how people try to change others' behaviour; social norms; conformity and obedience - factors affecting them.

*What is meant by social norms - why people conform to social norms and why they digress; factors affecting Conformity and Obedience. Asch's study on conformity; why and when people obey others - Milgram's experiment.*

## 7. Attitudes

- (i) Meaning of "Attitude" - the relationship between attitude, perception, belief and behaviour; how attitudes are formed and changed.

*What are attitudes - the components of attitude; how far attitudes determine behaviours: the process of forming attitudes - how attitudes change: persuasion and cognitive dissonance.*

- (ii) Prejudice – meaning of "prejudice" and discrimination; the origins of prejudice; how to combat prejudice. The Indian context.

*An understanding of the meaning of prejudice and how it works in the form of discrimination - causes of prejudice: social learning, realistic competition, social categorization and stereotyping; ways in which prejudice can be resisted. Caste, community and gender stereotypes in the Indian context.*

## 8. Applications of Psychology

with reference to:

- (i) Clinical and Counselling Psychology.

*Role of a counsellor and a clinical psychologist in dealing with individuals, couples, families and groups.*

- (ii) Educational (School) Psychology.

*How Psychology helps to facilitate learning in school - students and teachers; individual problems: learning differences, teaching and evaluation techniques, school environment. Career counselling - how Psychology helps in the choice of a career - requirements of a field or job, testing individuals, matching individual and field/job.*

- (iii) Organisational Psychology.

*How Psychology helps to promote efficiency, well-being and profitability - study of factors involved. Recruitment, motivation, team building and leadership skills, marketing and consumer behaviour.*

- (iv) Crime

*How Psychology helps towards: understanding criminals, rehabilitating them, preventing crime.*

## PAPER II (PRACTICAL WORK) – 30 Marks

Candidates will be expected to have completed **two** studies from those given below. 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) Statistical Treatment of Data  
 (iv) Results & Discussion  
 (v) Conclusion

**The practical work will be assessed by the teacher and a Visiting Examiner appointed locally and approved by the Council.**

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

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

### **A. Statistics**

To study group differences in Examination results.

Groups: Any two classes or two sections of the same class with same subjects.

Raw Data: Summated scores on all subjects in the annual examination for each student.

Analysis: (i) Group analysis – Calculate mean scores (central tendency) and standard deviations (variability) for each group and make inter-group comparisons.

(ii) Individual analysis – Calculate Z (standard) scores for any two students from each class – one whose examination score is above the class mean and one whose examination score is below the class mean. Interpret the Z score in standard deviation units and indicate the percentage of scores that lie above/below the subject's score (use a table that gives the areas under the Normal curve corresponding to given values of Z).

(iii) Graphic Representation – bar diagram to depict the mean scores of both groups.

### **B. Attitudes**

To study attitudinal differences regarding any one of the following – Fashion, Work/Lifestyle, Marriage.

Groups: Two generations (parents and children)

**Or**

Gender differences (boys and girls) of the same age-group (preferably from Class XI or XII).

Tools: to construct a simple 5-point scale (10-15 items) with positively and negatively worded statements.

Raw Data: Summated scores on all the statements for each respondent.

Analysis: (i) Calculate mean attitudinal scores for each group and make inter-group comparisons.

(ii) Short, structured interview schedule constructed and administered to 8-10 students in each group. The responses elicited can be used to draw inferences to explain the inter-group differences, if any.

### **C. Stress**

To study the causes and effects of stress among school students.

Group: Class X or Class XI students

Tools: To construct two checklists - one indicating the potential stressors along with a 5-point rating scale indicating their frequency of occurrence (very often, often, sometimes, rarely, very rarely). The stressors should include dispositional/internal variables (personality attributes, cognitive appraisal) and situational/external variables (life events, environmental pressures – physical, social, cultural and academic stressors).

The second checklist should indicate the effects of stress (strain) – physical, psychological and behavioural along with their frequency of occurrence (on a 5-point rating scale).

Analysis: To determine the stressors and the effects that occur with the most to the least frequency and understand/explain each.

**NOTE**: No question paper for Practical work will be set by the Council.