

**Test Code : RZI/RZII (Objective and Short Answer type) 2005**

**Junior Research Fellowship in Psychology**

The candidates for Junior Research Fellowship in Psychology are required to take objective and short answer type tests – Research methodology in the forenoon and Psychology in the afternoon session.

The syllabus and the sample questions for both tests are given below.

**Test Code : RZI**

**Syllabus for Research Methodology**

1. Introduction : Meaning and characteristics of scientific research. Steps in research, Report writing for publishing, Hypothesis testing, Interpretation of data, Ethical issues in Psychological research.
2. Methods in Psychological research : Types of Variables,. Cross sectional and longitudinal methods, Observation, Applied behaviour analysis, Experimental, Quasi- experimental, Case study, survey research, Interview, Content analysis, Projective techniques.
3. Sampling : Kinds of samples, sample size determination, probability and non-probability sampling methods.
4. Psychological Assessment : Characteristics and classification of tests, Item writing, Item analysis, Methods of Reliability and Validity, Norms.
5. Statistical analysis : Normal probability curve, non parametric tools, ANOVA, Correlation, Partial and multiple regression, Data reduction techniques - Factor analysis, Cluster analysis.

*Sample Questions for Research Methodology*

**Test Code : RZI**

Full marks = 100

Time = 2 hours

**Answer any five**

**20 x 5 = 100**

1. As a research worker, how do you state your research problem and hypothesis ? Give your answer with example. The following data represent the computer-aided numerical reasoning aptitude scores of computer programmers in five different occupations. Test the differences among five groups by using ANOVA and interpret the result.

Research Institute	Animation	Civil	Mechanical	Bank
106	79	133	50	109
120	91	78	60	129
81	105	113	112	111
92	127	40	97	77
102	71	103	80	102
121	115	80	62	130
86	95	113	116	125
131	115	90	134	75
62	62	84	98	95
122	52	113	112	82

5 percent level of significant for  $F(df = 4, 45) = 2.57$

2. Do you think that non-parametric tests are more useful than parametric tests in psychological research? Give reasons.

Test Code : RZII

Syllabus for Psychology

1. Cognitive processes : Information processing model, Intelligence and measurement, Types and assessment of aptitudes.
2. Personality : Determinants, Type and trait theories of personality, psychoanalytic, social learning and humanistic theories of personality, Erikson's stages of psychosocial development, Self-efficacy.
3. Industrial and Organizational psychology : Job analysis, selection, methods of training, supervision and leadership, organizational climate, group morale, job satisfaction, structure of organization, organizational health and techniques of organizational development.
4. Educational psychology : Learning theories, class room climate. Teacher-pupil interaction, programmed learning, reading and writing motivation.
5. Developmental psychology : Theories of development, Maturation and scales for measuring maturation, Concept development and Piaget's theory, Language development, Social development, measurement of children's attitudes and values, Emotional development, Moral development, Measurement of children's motivation and affect, Personality development and appraisal to assess personality, Parent child relationship in development of personality, Children with special needs and exceptional children.
6. Social and health psychology : Stress and coping strategies, Pain and management, Quality of life, Culture and health, Pro-social behaviour, Violence in society and community care, Chronic and terminal illness, Gerontological problems and adjustment in old age, Psychotherapy and counseling.

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Full marks = 100

Time = 2 hours

Attempt any two from Group-A and any three from Group-B

20 x 5 = 100

Group-A

1. What is memorizing process? Discuss different experimental methods for memory study.
2. What is measured by personality inventory? Can we measure the same thing by using tests of attitude and values? Given your reasons.
3. Draw picture of cerebrum and discuss its structure and role on cognitive functions.

Group-B

4. Draw a sociogram of one hypothetical group and explain the pattern of interpersonal relations within the group.
5. Organizational climate depends on the styles of leadership – Discuss.
6. Is counseling important in school? State the difference between directive and indirective counseling.
7. Socialization process depends on cognitive development of children – Explain.
8. State the differences between psychoanalytic therapy and behavior therapy.