SYLLABUS FOR PG DIPLOMA COURSES - 2009 - 2010

1. URDU PALEOGRAPHY *

PART – A (40 Marks)
History of Urdu language
PART – B (60 Marks)
History of Urdu Master of Oriental Language

2. APPLIED LINGUISTICS *

PART – A (40 Marks)
Language spoken in India and in the World (Place names). 2) Great Literary works in languages and their authors. 3) Languages and their relationships. 4) Characteristic features of major Indian languages. 5) Language families - Tribal languages.
PART – B (60 Marks)
1. Provides languages data and students are expected to analyze the same.

3. FUNCTIONAL HINDI AND TRANSLATION *

PART – A (40 Marks)
1. Principles of Translation; 2. Principles of Linguistics; 3. Hindi Grammer; 4. Technical Terminology (English & Hindi)
PART –B (60 Marks)
1. History of Hindi Language; 2. Dialects of HIndi; 3. Hindi as Raj Bhasha, Rastha Bhasha (Official Language), National Language. Sampark Bhasha, (Link Language). 4. Type of Official letters & Aspects of Official Language; 5. Status of Official Language in Indian Constitutions; 6. General awareness of Hindi as National Language, language of the Media; 7. Hindi as Language of Administration, Banking, Judiciary, Commerce & Business etc.

4. CHILD PSYCHOLOGY *

PART – A (40 Marks)
1) Significance of studying child Development. 2) Methods of Child study - Observation - Case history - Interview - Questionnaire - Experimental Method.
PART – B (60 Marks)
1) Factors influencing development - Genetic and environmental factors Nature - Nature Contreverary. 2) Factors influencing Physical and meter development. 3) Emotional Development - Common emotions in Childhood. Factors affecting emotional development. 4) Social Development - Process of Socialisation. 5) Language Development - Stages - Factors, influencing language development. 6) Significance of parent - Child relations - influence/importance of carely child hood experiences - child rearing practices & their effects on persoality development.

5. MUSEOLOGY *

PART - A(40 Marks)
Art History of Indian - Fundamentals of Museology - Major Indian Museums.
PART – B (60 Marks)
History of Indian from the earliest times to the present day.

6. ARCHIVAL SCIENCE AND MANUSCRIPTOLOGY *

PART – A (40 Marks)
Fundamentals of Archival Science - Basic Elements of Manuscriptology - Indian Archives - Andhra Pradesh State Archives.
PART – B (60 Marks)
History of India from the early historic period to the present day.

7. GEOGRAPHICAL CARTOGRAPHY *

PART - A(40 Marks)
Regional Geography of Indian Andhra Pradesh. Physiography; Climate; Soils; Vegetation; Population; Resource. Techniques of Mapping and Map Analysis, a) Scales, b) Projections; c) Mapping tools; d) Types of Maps; e) Methods of Mapping; f) Surveying and Types.
PART – B (60 Marks)
Principles of Physical Geography, a) Crust of the Earth; b) Weathering; c) Rocks - Types; d) Earth Movements; e) Land froms - Fluvial, Karst Aeolian, Karst; f) Structure & Composition of AE nos,; g) Insolation and Temperature Distribution; h) Pressure Bells and Planetary winds; i) Mechanism of Mansoon; j) Precipitation - Types; k) Climate Rationalization; l) Oceanic Relief; m) Physical Properties of Oceanic Waer; n) Movements of Ocean water; o) Ocean deposits.
Social & Economic Geography: a) Population - Growth, Distribution; b) Migration - patterns; c) Settlements - Urban & Rural; d) Resources -Types & Distribution; e) Agriculture - Tepology Production & Distribution of major crops; f) Mineral distribution - Industrial regions; g) Transportation - Economic growth.

8. P.G. DIPLOMA IN MANAGEMENT OF INTERNATIONAL BUSINESS *

PART - A: 40 Marks
(i). REASONING – 20 Marks
This section consists of different types of questions to test the ability of the candidate in critical reasoning.
(ii). GENERAL KNOWLEDGE – 20 Marks
This section consists of different types of questions to test the general awareness of the candidate on the contemporary socio, economic, business issues and scientific knowledge.
PART B: 60 Marks
(i). NUMERICAL ABILITY – 40 Marks
Laws of indices, Ratios and proportions, surds, numbers and divisibility, LCM, GCM, Rational Numbers, Ordering, Percentages, Profit and loss, Partnerships, Pipes and Cisterns, Time, Distance and Work, areas and Volumes, Trigonometry – Trigonometric ratios, Trigonometric identities, Simple problems on heights and distances, Frequency distributions, Mean, Median, Standard Deviations, Correlation, Simple Problems on Probability.
(ii). VERBAL ABILITY – 20 Marks

9. RETAIL MANAGEMENT ENTRANCE TEST SYLLABUS *

PART - A (40 MARKS)

GENERAL AWARENESS (40 MULTIPLE CHOICE QUESTIONS 40 MARKS):

The candidate is expected to be aware of important events, terms and development in history, geography, politics, sports, business, current affairs etc.,

PART B (60 MARKS)
ANALYTICAL ABILITY (15 MULTIPLE CHOICE QUESTIONS 15 MARKS):
DATA SUFFICIENCY: A Question is given followed by data in the form of two statements labeled as I and II. If the data given in I alone is sufficient to answer the question then choice (1) is the correct answer. If the data given in II alone is sufficient to answer the question the choice (2) is the correct answer. If both I and II put together are sufficient to answer the question but neither statement alone is sufficient, then choice (3) is the correct answer. If both I and II put together are not sufficient to answer the question and additional data is needed, then choice (4) is the correct answer.

PROBLEM SOLVING: (a) Sequences and Series: Analogies of numbers and alphabets,
Completion of blank spaces following the pattern in a:b::c:d relationship; odd thing out:
Missing number in a sequence or a series. (b) Data Analysis: The data given in a Table, to the data are to be answered.

QUANTITATIVE ABILITY ((15 MULTIPLE CHOICE QUESTIONS 15 MARKS):
The questions generally will be on commercial arithmetic viz., ratios, percentages, time and work, time and distance, mensruation etc., and these questions will be on the
standards of secondary and high school level.

COMMUNICATION ABILITY ((30 MULTIPLE CHOICE QUESTIONS 30 MARKS):
Vocabulary 10 Questions (10 Marks), Functional Grammar 10 Questions (10 Marks), Reading Comprehension (2 Passages) 10 Questions (10 Marls)

10. P. G. DIPLOMA IN PSYCHOLOGICAL COUNSELING *

PART-A (40 MARKS)

1. Behaviour – Definition and Characteristics of behaviour, Psychology as Science of behaviour. Methods and Techniques of studying behaviour - case study, survey, observation and experimental method, field study, questionnaire, interview.

2. Behaviour – Role of nature and nurture. Principles of development, stages of development. Factors influencing the developmental process, maturation, learning, intelligence, family interaction, early childhood experiences.

3. Biological basis of behaviour – Body and mind interaction, importance of brain, central nervous system, sympathetic and para sympathetic nervous system and their effect on behaviour. Endocrine glands – Types of endocrine glands, the over and under functioning of endocrine glands and their effect on the behaviour.

4. Cognitive processes – Attention – span of attention, subjective and objective factors influencing attention, Types of attention – voluntary, involuntary and habitual. Perception – Principles of organization in perception, illusion and hallunicination.
   Memory – Factors influencing retention, causes of forgetting, effective methods of memorizing.
   Learning – learning and maturation, learning and motivation, factors influencing learning, effective methods of learning,
   Thinking – imagination, reasoning and problem solving, Types of thinking.
   Nature of intelligence – Concept of individual difference, factors influencing intelligence, special abilities - aptitude.

PART-B (60 MARKS)

5. Motivation - Types of motives, intrinsic and extrinsic motivation, specific motives – achievement, affiliation, power.
   Emotions – nature and function of emotions, development of emotions, understanding, expressing, channelization and control of emotions, concept of emotional intelligence and its components.

6. Personality – nature of personality, factors influencing personality, development of self and self concept, self awareness, dimensions of self concept – self acceptance, self esteem, self – confidence, developmental changes in self concept in childhood and adolescence. Characteristics of adequate and inadequate personality.

7. Parenting styles - healthy and unhealthy styles of parenting and behavioural problems of children – children from discorded, single parent and divorced families. Child abuse and pedophilia, effect of school environment on child's personality – peer group and relationship, personality of teacher, problems of adjustment and relationship in school.
   Academic problems – underachievement in school; factors influencing, disadvantage groups – types of disadvantage groups, social, psychological and academic problems of socially disadvantaged groups. Concept of learning disability, types of learning disabilities.

8. Adjustment, maladjustment and readjustment causes – exaggerated, unrealistic and conflicting needs, non-development or under-develop or overdevelopment of certain needs, learnt patterns of behaviour – frustration, conflicts. Eating disorders, adjustment in adolescence – career confusion and planning, establishing values, disappointments, frustration and compromises in relationships.

9. Socialization - primary and secondary agencies of socialization – Role of home or family, neighbourhood, community, peer group, social class, religion, culture on socialization.
   Social interaction and processes – Types of social interaction – conformity, compliance, obedience, compromise, co-operation and competition social processes – social perception, social motivation, other social phenomenon – mobbeh, propaganda, rumour, public opinion, Behaviour in groups – Group cohesiveness, leadership.
   Attitudes – nature of social attitudes, components of social attitudes, development of attitudes, prejudice – nature and causes, manifestations and Types of prejudice.

10. Health and illness – Genetic factors in health related behaviour, Role of beliefs, intensions, attributions on health, stress – causes of stress, effects of stress – coping with and reducing stress – social, personal and emotional factors in stress reduction.

11. Problems of contempary society – alcoholism and drug addiction, juvenile delinquency, AIDS, changed sexual orientations, Problems of aged – feeling of unwantedness, loneliness, empty nest syndrome.

11. ADVANCED P.G. DIPLOMA IN BIOSTATISTICCS *

PART – A (40 Marks)

1. **Probability :** Sample space, events, relations among events, classical and relative frequency definitions of probability, probability as a measure. Basic results on probability of events. Conditional probability and Baye's theorem. Independence of events.
Random variables (discrete and continuous). Distribution function and its properties. Joint distribution of two and more random variables. Marginal, conditional distributions and densities. Expectation of random variables, moments and generating functions. Conditional expectation. Characteristics function and its properties. Inversion theorem. Statement of continuity theorem.
Convergence of a sequence of events. Borel – Cantelli lemma, Borel 0-1 law and statement of Kolmogorov 0-1 law with applications. Convergence of a sequence of random variables. Convergence in law, in probability, with probability one and in quadratic mean and other inter-relationships. Convergence in law of $X_n + Y_n$, X_nY_n and X_n/Y_n. Definition and examples of weak law of large numbers. Khintchene's theorem and strong law of large numbers.Statement of CLT. Lindberg-Levy and Liapunov forms of central limit theorems, statement of Lindberg – Feller form of CLT with simple illustrations.Stochastic processes with examples. Markov Chains transition probability matrix and classification of states of a Markov chain with examples.

2. **Distribution Theory :** Theoretical distribution – Binomial, Poisson, negative binomial, geometric, hypergeometric, multinominal, rectangular, normal, lognormal, exponential, gamma, beta, Cauchy, weibull and Pareto distributions with properties.Transformation of random variables. Distribution of Chi – squares, t and F distributions and their properties. Distribution of and s^2 for samples coming from normal population. Distribution of order statistics and range. Joint and marginal distribution of order statistics. Distribution of sample quantiles.Multivariate normal distribution and its marginal and conditional distribution with examples. Simple correlation and lines of regression.

3. **Estimation :** Unbiasedness, sufficiency, consistency and efficiency of a point estimate with examples. Statement of Neyman's factorization criterion with applications. Minimum variance unbiased estimation, Crammer – Rao lower bound and its applications. Rao – Blackwell theorem, completeness and Lehman – Scheffe theorem. Estimation by method of maximum likelihood, moments and statement of its properties. Confidence intervals for the parameters of normal, exponential, binomial and Poisson distribution.

4. **Testing of Hypotheses :** Concepts of tests of statistical hypothesis, types of error, level of significances, power, critical region and test function. Concepts of MP and UMP tests. Neyman – Pearson lemma and its applications, one parameter exponential family of distributions. Concepts of unbiased and consistent tests. Likelihood ratio (LR) criterion with simple applications (including homogeneity of variances). Statements of asymptotic properties of LR tests. Large sample tests of population means, proportions and correlation coefficients. Relation between confidence intervals, and hypothesis testing. Wald's SPRT for testing a simple null hypothesis against simple alternative hypothesis and its OC and ASN functions. SPRT procedure for binomial, Poisson, normal and exponential distributions.

PART – B (60 Marks)

5. **Non – Parametric Tests :** Non – parametric tests for (i) one sample case: sign test, Wilcoxon signed rank test for symmetry, runs test for randomness, Kolmogorov – Smirnov (k-s) test for goodness of fit (ii) two sample case: sign and Wilcoxon tests for paired comparisons. Wilcoxon - Mann Whitney test and K –S test and test for independence based on spearman's rank correlation. Kruskal-Wallis test and Friedman's test.

6. **Multivariate Tests :** Principal Component Analysis, Factor analysis, Canonical Correlation, Cluster analysis. Multivariate tests based on Hotelling's T^2 and Mahalanobis D^2 statistics for one sample problem, two sample problem and classificatory problems between two normal populations based on Fisher's discriminant function.

7. **Sampling Techniques :** Estimation of population mean, population total and variance of the estimator in the following sampling methods: simple random sampling with and without replacements and equal and unequal probabilities. Horwitz Thompson and Yates and Grundy estimators. Selection of sample and determination of sample size. Stratified random sampling, proportional and optimum allocations and comparisons. Systematic sampling with N=nk and comparisons in populations with linear trend. Cluster sampling with clusters of equal and unequal sizes. Two stage sampling with equal and unequal first stage units. Ratio and regression estimation in case of simple random sampling and stratified random sampling. Non – sampling errors.

8. **Linear Models and Analysis of Experimental Designs :** Gauss – Markov linear model, BLUE for linear functions of parameters Gauss – Markov theorem, analysis of multiple regression models, multiple and partial correlations. Tests of hypothesis on regression and correlation parameters, tests of sub – hypothesis. Aitken's generalized least squares. Concept of multicollinearity.Introduction of selecting the best regression equation, all possible regressions: backward, stepwise regression procedures. Variations on these methods. Ridge and robust regression procedures. Probit and logit analysis, Introduction to non-linear regression model building, least squares in non-linear case, estimating the parameters, non-linear growth models. Statement of Cochran's theorem for quadratic forms, analysis of variance one – way classification model, two –way classification model with one - observation per cell with more than one (equal) observations per cell with interaction. Fisher's least significance difference (LSD) method. Analysis of covariance one-way and two – way classification. Fundamental principles of experimental designs. Analysis of completely randomized design (CRD),Randomized BlockDesign (RBD), and Latin Square design (LSD). Analysis of RBD and LSD with one and more than one observation missing.Estimation of main effects, interactions and analysis of 2^2, 2^3, 2^4, 2^n and 3^2 factorial experiments. Total and partial confounding of 2^2, 2^3, 2^4 and 3^2 factorial designs. Concept of balanced partial confounding. Fractional factorial designs. Split plot design and its analysis. Balanced incomplete block design (BIBD) - parametric relations, Intra – block analysis and recovery of inter block information. Partially balanced incomplete block design with two associate classes (PBIBD (2)) – parametric relations and intra –block analysis. Youden Square design, Lattice design and intra – block analysis of simple lattice design.

9. **Optimization Techniques :** Meaning and scope of Operations research, formulation of Linear programming problem (LPP), rule of steepest ascent, and q-rule, optimum solution for Linear programming problem by graphical method and simplex algorithm using artificial variables (Big M/penalty method and two phase simplex methods). Dual of a symmetric Linear programming problem and reading the optimal solution to the dual from the optimum simplex table of primal. Complementary slackness theorem, dual simplex algorithm. Definition of transportation problem, initial basic feasible solution by north west, matrix minimum methods and VAM. Optimal solution through MODI tableau for balanced and unbalanced transportation problem, degeneracy in transportation problem, transportation problems as a special case of linear programming problem. Assignment problem as a special case of transportation problem and LPP. Optimal solution using Hungarian method.Sequencing: Optimal sequence of 'n' jobs on two and three machines without passing. Non–linear programming problem – Formulation, generalized Lagrange multiplier technique, Kuhn - Tucker necessary and sufficient conditions for optimality of an NLPP.
Game theory: 2 person zero sum game, pure strategies with saddle point, principles of dominance and games without saddle point. Introduction to simulation, generation of random numbers for uniform, Normal, Exponential, Cauchy and Poisson distributions. Estimating the reliability of the random numbers, simulation to queuing and inventory problem.