

SECTION A

General Intelligence and Reasoning	
	Arithmetical reasoning
	Arithmetic number series and Operations
	Non-verbal series
	coding and decoding
	Statement conclusion
	Syllogistic reasoning
	Analogies
	Similarities and differences
	Relationship concepts,
	Figural Pattern-folding and completion
Quantitative Aptitude and Mathematics	
	Number systems
	Percentage, Ratio & Proportion
	Interest, Profit and Loss, Discount,
	Time and distance, Time & Work
	Square roots, Averages
	Bar diagram & Pie chart, Histogram
	algebraic identities
	Trigonometric ratio, Degree and Radian Measures, Standard Identities
	Partnership Business, Mixture and Alligation
	Congruence and similarity of triangles, Circle and its chords, tangents,
General English	
	Preposition
	Correction of sentences
	Change active to passive/ passive to active voice
	Change direct to indirect/indirect to direct
	Verbs/Tense/Non Finites
	Punctuation
	Synonyms and Antonyms
	Meanings of difficult words
	Articles, jumbled letters
	Use of pronouns
General Knowledge and current affairs	
	Current Affairs
	Art and Indian Culture
	History
	Geography
	Politics
Computer Skills	
	Characteristics of computers, Evolution of computers, Generation of Computers
	Classification of Computers, The Computer System, Applications of Computers
	Input / Output devices and Memory
	Introduction, Keyboard, Pointing Devices, Speech Recognition, Digital Camera, Scanners
	Optical Scanners. Classification of Output, Printers, Plotters, Computer Output Microfilm (COM)
	Optical Disk, Magneto Optical Disk

	Monitors, Audio Output, Projectors. Random Access Memory (RAM), Read Only Memory (ROM)
	Classification of Secondary Storage Devices, Magnetic Tape,
	MS-Office (MS-Word, MS-Excel, MS-Power Point)
	Net Surfing, Internet Services, Case Study, Intranet
About ICMR	
	History of ICMR Leadership of ICMR Institutes and its Location Mandate, scope IJMR- Indian journal of medical research About Going Viral Book Landmark achievements in past Fellowships Programs by ICMR Outbreak investigations Test tube baby landmark achievement Covid-19 related information ICMR Health Communication Ecosystem Major work of ICMR Institutes DG/ Directors of ICMR

SECTION B

<p>Basic Statistics Statistics Definition, Types of Variables and measurements – Quantitative, Qualitative, Semi-Quantitative along with measurement scales, Tabulation for different types of the data along with definition of classification, Graphical representation by types of data for univariate and bivariate presentation, Measures of Central Tendency and Location – Mean, Median, Mode and Measures of Location- Quartiles, Quintiles, Deciles and Percentiles, Measures of Dispersion – Range Deviation, Quartile Deviation etc., Mean Deviation, Variance, Standard Deviation, Coefficient of Variation, Measures of Central Tendency and Variation for Qualitative Variables</p> <p>Probability Theory Definition and Concepts in Probability- Classical and Relative Frequency Approach to Probability, Cramer and Kolmogorov's approaches to Probability, Merits and Demerits of these approaches, Random Experiments: Trials, Sampling Units and Sampling Space, Mutually Exclusive and Exhaustive Events. Discrete Sample Space, Conditional Probability, Bayes' theorem and its applications. Random Variables, Chebyshev's inequality and applications, Statements and Applications of Weak Law of Large Numbers and Central Limit Theorems</p> <p>Theoretical Probability Distributions Normal Distribution, Binominal Distribution, Poisson Distribution, Negative Binominal, and Geometric Distribution along with their properties and utility in Descriptive and Inferential Statistics.</p> <p>Sampling Techniques and Design Concepts of Sampling and Non Sampling Errors, Population and Sample, Simple Random Sampling, Stratified Sampling, Systematic Sampling, Cluster Sampling, Multistage Sampling, Multiphase Sampling, Quota Sampling, Inverse Sampling along with Sample Size Estimation for all Sampling Techniques</p> <p>Statistical Inference Concept of a Statistic and Sampling Distribution, Point and Interval Estimate of a Parameter, Standard errors, Null and Alternative Hypotheses, Statistical Tests and Distributions, Concepts of Type I & II Errors, p- values, Chi-square tests, t – test, Z-test and F-test.</p> <p>Design of Experiments Process of Randomization, Analysis of Variance (one/ two way), Analysis of covariance Randomized</p>
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Block Design, Latin Square Designs (Cross-over Designs), Factorial Designs
Correlation and Multivariate Regression Analysis
Correlation Coefficient, Partial and Multiple Correlation Coefficients, Coefficient of Determination, Correlation ratio, Methods of Regression Models in Regression - Least Squares, Maximum Likelihood, Fitting of Linear Regression and related results, Appropriate Polynomials Models (Curve fittings), Logistic Regression Analysis.

Non-parametric tests

Definition of Order Statistics and their distributions, Non-parametric tests; Chi square (test, Goodness of Fit, Independence), Fisher's exact test, McNemar test, Sign test for univariate and Bivariate Distributions, Wilcoxon-Mann-Whitney test, Run test, Median test and Spearman's Rank Correlation test. Friedman's two way ANOVA and Concordance, Cochran Q test, Kruskal-Wallis test

Basic Demography

Censuses in India and World, Age and Sex Composition, Data Appraisal and adjustments, Sex Ratio, Dependency Ratio, Population Theories, Demographic Transition.

Registration Systems and Sample Surveys

Vital Events and Registration, Population and Health surveys – Civil Registration System (CRS), Sample Registration System (SRS), National Sample Survey (NSS), National Family Health Survey (NFHS), District Level Health Surveys (DLHS), Reproductive and Child Health Survey (RCHS) – Nature and limitation of data.

Health and Mortality

Concepts and definition of Health & Disease, International Classification of Disease and Mortality, Disease Burden, Disability and Rehabilitation, Prevalence and Incidence Rates, Direct and Indirect Adjustment of Mortality Rates, Concepts of Disability Adjusted Life Years (DALY), Measures of Mortality, Life Tables – Abridged and complete and their measures, Kaplan Meier Survival Method

Basic Epidemiology

Health and Disease Concepts, Approaches in Epidemiology – General Epidemiology and Clinical Epidemiology, Rates, Ratios and Proportion, Prevalence, Incidence, Attributable Risk, Relative Risk, Odds Ratio, Risk Ratio