BEL Probationary Exam Pattern/Syllabus 2015

Quantitative Aptitude:

Area,Average,Boats and Streams,Calendar,Chain Rule,Compound Interest,Data Interpretation,Fraction,Height and Distance,Partnership,Probability,Problems on Trains,Square Root and Cube Root,Time and Work,Percentage,Allegation of Mixture,Clock,Number Series,Decimals,Permutation and Combination,Pipes and Cistern,Problems on Ages,Problems on H.C.F and L.C.M,Profit and Loss,Ratio and Proportion,Simple Interest,Simplification,Time and Distance

General Awareness:

Awards,Books and Authors,Economy,Business,Sports,Current events

Important Dates

National and International affairs,Important Personalities,Science and Technology

Reasoning Ability:

Analogy,Analytical Reasoning,Arithmetic Reasoning,Blood Relation,Character Puzzles,Classification,Data Sufficiency,Direction Sense Test,Letter and Symbol Series,Logical Problems,Logical Sequence of Words,Seating Arrangement,Series Completion,Verbal Classification

General English:

Correcting Sentences Ordering,Word Usages,Comprehension,Verbs,Synonyms,Preposition,Sentence formation,

Tenses,Technical Aptitude,Digital Logic,Computer Arithmetic,Logic functions,Minimization,Number representation,Computer Organization,Addressing modes,Cache memory,Combinational Circuits,Hardwired and micro-programmed control,I/O interface,Instruction pipelining,Machine instructions,Memory interface,

Secondary storage,Sequential circuits,Serial communication

Theory of Computation:

Context free languages,Finite automata,Pushdown automata,Recursively enumerable sets,Regular languages,Turing machines,Un-decidability

Operating Systems:

Classical concepts,Concurrency,Deadlock,Processes,Inter-process communication,CPU scheduling,File systems,Protection and security,Synchronization,Threads,Memory management,I/O systems

Compiler Design:

Code generation,Code Optimization,Lexical analysis,Linking,Parsing,Runtime environment,Syntax directed translation

Databases:

Relational model,ER-model,Tuple calculus,Integrity constraints,

Normal forms,File structures,Sequential files,Concurrency control,Relational algebra,Database design,Query languages,Indexing,Transactions

Data Structures:

Binary search tree,Connected components,Design techniques,Graph,Hashing,Heap List, Queue, Searching, Sorting,Stack, String,Tree,Spanning trees,Traversals in tree and graph

Computer networks:

Application layer protocols,Data encoding and transmission,Data link control,Ethernet,Gateways,ISO/OSI stack,LAN systems and Architecture,Network devices,Network security,Packet switching,Routing protocols,Sliding window protocols,Switches,TCP / UDP,Token ring