## CHAUDHRY DEVI LAL UNIVERSITY, SIRSA, HARYANA

## Department of Computer Science & Engineering

(Syllabi for Entrance Exam of Postgraduate Courses)

The entrance examination shall consist of 50 questions to be answered in 90 Minutes time. Each question shall carry two marks for the correct answer. If a question has not been attempted no credit will be given. The candidate has to indicate the option which in his/her opinion is correct. The knowledge of the candidate in the following four broad areas will be tested: Computer Awareness and General English, Mathematics, Analytical ability & Logical Reasoning,. The admission is given to the candidate purely on the basis of the above examination score.

#### **Examination Pattern**

Computer Awareness, General English
Mathematics:
15 questions

Logical and Analytical reasoning: 10 questions

### Computer Awareness: (25 questions)

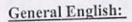
Computer Basics: Organization of a computer, Central Processing Unit (CPU), Structure of instructions in CPU, input/output devices, computer memory, memory organization, back-up devices.

Data Representation: Representation of characters, integers and fractions, binary and hexadecimal representations, Binary Arithmetic: Addition, subtraction, division, multiplication, single arithmetic and two complement arithmetic, Boolean algebra, truth tables.

Computer Architecture: Block structure of computers, communication between processor and I/O devices.

Computer Language: Assembly language and high-level language, Multiprogramming and time-sharing operating systems.

Basics of Internet:- www, internet, intranet, social media, Web browser, Search Engine, E-mail.



- 1. Use of articles and prepositions
- 2. Idioms and phrases
- 3. Synonyms
- 4. Reading comprehension
- 5. Expansion of an idea
- 6. Sentence sequence (jumbled sentences)
- 7. Completion of a sentence (with choices)
- 8. Choice of appropriate word to fill in the blanks (with options)
- Abridging sentences/paragraphs

## Mathematics: (15 questions)

Algebra: Fundamental operations in Algebra, expansion, Factorization, quadratic equations, indices, logarithms, arithmetic, geometric and harmonic progressions, binomial theorem, permutations and combinations, surds.

Set Theory: Sets and subsets, operations on sets, sequences, properties of integers, relations and functions.

Co-ordinate Geometry: Rectangular Cartesian co-ordinates, equations of a line, midpoint, intersections etc., equations of a circle, distance formulae, pair of straight lines, parabola, ellipse and hyperbola, simple geometric transformations such as translation, rotation, scaling.

Vector: Position vector, addition and subtraction of vectors, scalar and vector products and their application to simple geometric problems and mechanics.

Trigonometry: Simple identities, trigonometric equations, properties of triangles, solution of triangles, height and distance, inverse functions.

# Analytical Ability and Logical Reasoning: (10 questions)

Questions in this section will test logical reasoning, quantitative reasoning and visio-spatial reasoning.

(Ms. Suman)

(Dr. Kapil Kumar)

(Dr./Sangeeta