

B.Sc (Hons) Information Technology(w.e.f. 2011-12)
Course Study Cum Examination Scheme

Sem	Paper Code	Nomenclature Of Paper	Internal Assessment	External Marks	Total Marks	Pass Marks	Exam Duration
I	BSIT-101	Communication Skills (English)-I	10	30	40	20	3 Hrs
	BSIT-102	Mathematical foundations for Information Technology-I	10	40	50	20	3 Hrs
	BSIT-103	EM Theory	10	40	50	20	3 Hrs
	BSIT-104	DIGITAL ELECTRONICS-I	10	40	50	20	3 Hrs
	BSIT-105	Electronic Communication-I	10	40	50	20	3 Hrs
	BSIT-106	Computer Fundamentals	10	40	50	20	3 Hrs
II	BSIT-201	Communication Skills (English)-II	10	30	40	20	3 Hrs
	BSIT-202	Mathematical foundations for Information Technology-II	10	30+20*	40	20	3 Hrs
	BSIT-203	Electronic Devices and Circuits	10	40	50	20	3 Hrs
	BSIT-204	DIGITAL ELECTRONICS-II	10	40	50	20	3 Hrs
	BSIT-205	Electronic Communication-II	10	40	50	20	3 Hrs
	BSIT-206	Programming Techniques	10	40	50	20	3 Hrs
Common for Sem I & Sem II	BSIT-207	Analog Electronics (Practical)	-	50	50	20	3 Hrs
	BSIT-208	Digital Electronics (Practical)	-	50	50	20	3 Hrs
	BSIT-209	Electronic Communication (Practical)	-	50	50	20	3 Hrs
	BSIT-210	Computer Fundamentals & Office Tools (Practical)	-	50	50	20	3 Hrs

Note: 20% Internal assessment on the basis of Class Tests, attendance and assessment.

*** Part B(Practical)**

Semester –I
Course: B.Sc. (Hons) IT
Paper Code: BSIT-101
Nomenclature: Communication Skills (English)-I

Part A (Theory)

Maximum Marks: 30+10
Time: 3 Hours

- Q1. This question is compulsory, consisting of short answer type questions based on all the four units.(6 Marks)
- Q2. This question will consist of 2 parts (each part in itself consisting of 2 alternative choice /subparts) based on unit –I. The candidate will be required to attempt both parts (3+3 = 6).
- Q3. This question will consist of 2 parts (each part in itself consisting of 2 alternative choice /subparts) based on unit –II. The candidate will be required to attempt both parts (3+3 = 6).
- Q4. This part consist of 4 parts (each part in itself consisting of 3 parts) based on 4 out of 6 topics suggested in unit – III (3+3 = 6).
- Q5. This question will require the candidate to mark précis of given paragraph (of about 200 words) and also suggest a suitable title based on unit – IV (1*6=6 marks).

Note: -

1. The syllabus is divided into 4 units.
2. A student is required to attempt 5 questions in all.
3. All questions carry equal marks.
4. Question No. 1 is compulsory.
5. 2 questions are set from each unit. A student is required to attempt 1 question from each unit.

UNIT-I

Communication: Meaning, need objectives, significance and elements of communication essentials for effective communication, barriers to communication.

Channels of communication: Formal, informal, downward, upward, horizontal written, oral, internal, external communication means of communications: selection of means conversation, lecture, interview, telephone, radio broadcast, Dictaphone, meeting conference, seminar, group discussion, speech, announcement over public address system.

UNIT-II

Letters, circulars, memo, minutes, reports, manual, expression, gesture ,table, diagram, chart, graph, poster, slide, film strip, television, camera, cinema, video player, fax, telex & teleprinter, e-mail ,cellular phone, pager, internet, signals, messenger service etc.

UNIT-III

Remedial Grammar: Articles, agreement between verb and subject, uses of tenses, active and passive voice, reported speech, Madal and their uses, Phrasal verbs.

UNIT-IV

Precis Writing.

Ref.:

1. Super text book on English language, communication skills by- Jindal Gautam and Sikeri Sharma
2. Communication by Rayudu C.S.
3. The art of précis writing and one world by Prof. Bhatia.

Part B (Practical)

Examination to be held after Semester –II
(Details given in paper BSIT-201 Part-B (Practical).)

Semester-I
Course: B.Sc. (Hons) IT
Paper Code: BSIT-102
Nomenclature: Mathematical foundations for Information Technology-I

Max. Marks: 40+10
Time: 3hrs.

UNIT-I

Matrix Algebra: Introduction, Rank Matrix, Eigen vectors, Characteristics equation, Diagonalization

UNIT-II

Differential Equations: Formation of differential equations, Geometrical approach to the existence of solutions of the equations $dy/dx=f(x, y)$, ordinary Differential equations of the first order and degree, exact equation.

UNIT-III

Linear equations of higher order with constant coefficient, Homogenous linear equations.

Sets and propositions: introduction, combination of sets, Finite and infinite sets, uncountably, Mathematical induction, principle of inclusion and exclusion, multisets, properties of binary relations.

UNIT-IV

Equivalence relations and partitions, partial relations, functions and pigeon Hole Principle, Propositions.

Ref.:

1. Discrete Mathematics by R.C.Joshi
2. Calculus and Differential Equation by Jevason's publications for B.Sc I
3. Algebra and Trigonometry by Jevason's publications for B.ScI

Semester -I
Course: B.Sc. (Hons) IT
Paper Code: BSIT-103
Nomenclature: EM Theory

Max. Marks: 40+10
Time: 3hrs.

UNIT-I

Mathematical expression and significance of Gauss's Divergence Theorem, Stokes Theorem (No Derivation) Electric field as gradient of Electric potential, Electric flux, Gauss's law, concept of Displacement current, Scalar and vector potential, Maxwell's equation in differential and integral forms, Basic idea of EM waves.

UNIT-II

Formulation of Maxwell's equations in terms of Electromagnetic potentials, Lorentz Gauges condition and Coulomb gauge Electro magnetic waves, plane waves in free space, non-conducting media, transverse nature, intrinsic impedance of medium, plane wave in conducting media, skin effect, Electromagnetic energy conservation, Poynting theorem and Poynting vector.

UNIT-III

Propagation of Electromagnetic waves in atmosphere, ground wave propagation, sky wave propagation, space wave propagation, Satellite Communication (basic ideas), Remote sensing and its applications, Troposphere scattering.

UNIT-IV

Antennas: Radiation mechanism, Elementary doublet, Current and voltage distribution, resonant antennas, non resonant antenna gain, Antenna resistance, Bandwidth Beamwidth and polarization. Fundamentals of transmission lines, characteristic impedance, Losses in transmission lines.

Ref.:

1. Electromagnetic wave theory by B.B Laud
2. Electromagnetic wave theory by Ritz and Milford
3. Electronic Communication system by George Kennedy

Semester-I
Course: B.Sc. (Hons) IT
Paper Code: BSIT-104
Nomenclature: DIGITAL ELECTRONICS-I

Max. Marks: 40+10

Time: 3hrs.

UNIT-I

Number systems: Binary, Octal, Hexadecimal number system and base conversions, Binary Arithmetic operations, 1's and 2's complement representation and their arithmetic. Binary codes- BCD, Grey, cyclic, ASCII, EBCDIC, Parity Bit Code, Unicode, Sequential Code

UNIT-II

Logic Gates: AND, OR, NOT, XOR, XNOR, NOR, NAND. Boolean Algebra – Postulates, Duality Principle, De Morgan's Law, Simplification of Boolean Identities, Standard SOP & POS Forms, Simplification using K-Map, don't care condition implementation of SOP & POS form using NAND and NOR Gate.

UNIT-III

Combinational Logic Design: Combinational Circuit design procedure, multiplexer and demultiplexer, decoder and their applications : Encoder, code converter, Parity Generation and checking, binary adder, binary subtractor, parallel binary adder, 2's complement binary adder/subtractor, binary multiplier, digital comparator.

UNIT-IV

Sequential circuits: 1 Bit memory cell, Flip-Flop, Clocked (RS,JK,T,D,MASTER SLAVE JK),Excitation table of Flip flop Flip-Flop design, edge triggered Flip-Flop, Applications of Flip-Flops .

Ref.:
Digital Electronics by R.P Jain

Semester-I
Course: B.Sc. (Hons) IT
Paper Code: BSIT-105
Nomenclature: Electronic Communication-I

Max. Marks: 40+10

Time: 3hrs.

Unit-I

Communication Model, Modulation: AM, FM, PM (Quantitatively & Qualitatively), Demodulation, Relationship between FM & PM, Fourier Theorem, Fourier analysis.

Unit-II

Analog to digital conversion: Pulse Modulation system, the sampling theorem for low pass and Band pass signals, PAM, channel Bandwidth for PAM, sampling rate, natural Sampling, quantization of signals, quantization errors

Unit-III

The PCM System, Bandwidth requirements of PCM, Noise in PCM System, Companding, DPCM, Delta Modulation System, Noise in Delta Modulation System, Comparison of PCM & DM System.

UNIT-IV

Digital Communication: Elements of digital communication, Analysis & design of communication system, bit rate, baud rate, transmission rate, Bandwidth requirement, error transmission errors, echo suppressor, Echo canceller, Characteristics of digital Communication.

Ref.:

1. Principles of communications system by Taub and Schilling
2. Electronic communication System by George Kennedy.
3. Data communication By Forouzan.
4. Analog & digital communication By K. Sam shamunagam
5. Computer Network By Tannenbaum

Semester-I
Course: B.Sc (Hons) IT
Paper Code: BSIT-106
Nomenclature: Computer Fundamentals

Max. Marks: 40+10
Time: 3hrs.

Unit-I

What is a Computer (an introduction), Evaluation & Generation of computers, Applications and characteristics of computers, elements of Computer (Hardware, Software), common input & output devices (Basic idea). Types of Computers: Micro, Mini, Main frame, super computers, Block diagram of PC architecture, concept of files and directories.

Unit-II

Secondary storage Devices, sequential and direct access devices, Magnetic disk, Floppy Disk, Winchester Disk, Mass Storage, Optical Disk, Magnetic Bubble Memory, Charged Coupled Device, Cache Memory, Storage Hierarchy.

Unit-III

What is Software, Relationship between Software and Hardware, Types of softwares: System Software (Meaning and its type), Application Software, Acquiring Software, Software Development Steps, Firmware, Middleware.

Unit-IV

Windows: Windows as an interface, Introduction to desktop, accessories, internet: definition, basic services and uses, multimedia: meaning, multimedia components, applications Word: Introduction of Word, creating, editing a document, modifying and formatting a document, using the speller in word, creating and using macros.

Ref. :

1. Computer Fundamentals by P.K Sinha

Semester –II
Course: B.Sc. (Hons) IT
Paper Code: BSIT-201
Nomenclature: Communication Skills (English)-II

Part A (Theory)

Maximum Marks: 30+10
Time: 3 Hours

- Q1. This question is compulsory, consisting of short answer type questions based on all the four units.(6 Marks)
- Q2. This part will be based on Unit – I and will have internal choice. The candidate will be required to attempt any of the two topics chosen from Unit-I (6*1=6 Marks).
- Q3. This part will be based on Unit – II and will have internal choice. The candidate will be required to attempt any of the two topics chosen from Unit-II (6*1=6 Marks).
- Q4. The candidate is required to answer any 6 out of 9 terms in to English based on UNIT- III (6*1= 6 marks).
- Q5. The candidate is required to answer any 6 out of 9 terms in to English based on UNIT- IV (6*1= 6 marks).

Note: -

1. The syllabus is divided into 4 units.
2. A student is required to attempt 5 questions in all.
3. All questions carry equal marks.
4. Question No. 1 is compulsory.
5. 2 questions are set from each unit. A student is required to attempt 1 question from each unit.

UNIT-I

Communicative writing-I:

Official Letters: Meaning of official correspondence, distinction between official and business correspondence, essential of good draft, classification of official correspondence, specimen of official letters, Memorandum, Endorsement, Telegram, Notifications, and Communiqués etc.

UNIT-II

Communicative writing-II :

Business Letters: Objectives & importance of business letters, layout of business letters, essential of good business letters, letters of Application, reference, appointments, Inquires, Quotations, placing an order, introduction, recommendation, credit, agency banking, insurance etc.

UNIT- III

Terminology of administrative terms-I:

Administrative terms (about 250 words): (Translation into English) Abolition, above cited, absolute value, absolve, abstract contingent bill, abstract of tender, acquaintance roll, addressee, adherence, adhoc, adjourn, administrative measures, admonition, adverse report, advice note, age of superannuation, ambiguous, annexure, appellate powers, arbitrary, assessment, audited account, balance sheet, benevolence, bipartite, brain drain, breach of contact, brought forward(b/f), carried forward, cash chest, censure, citation, cognizable, commensurate, communication, conciliation, concurrence, confer, consolidated fund, contingency, co-opted member, credit, debit, de facto, defer, de jure, demi-official (D.O.), drawee, earnest money, ejection, embezzlement, errata, ethics, fiscal forfeit, freight, glossary, gratuity, haulage charges.

UNIT- IV

Terminology of administrative terms-II:

Ibidem,(ibid), impeachment, impersonation, imprest, inadvertently, indemnity bond, indent, insolvency, interim in toto, lien, maintaine, memorandum, minutes, misconduct, modus operandi, non-compliance, obsolete, onus, parity, payee, per capital income, perjury, post facto sanction postscript,(p.s.),precedent, prima facia, provident fund, punitive query, re-appropriation, recapitulation, rectification, referendum, reimburse, repugnant, retrospectives, revalidation, sine die, status quo, strenuous, sundry receipts tariff, terms of reference, time barred, unanimity, unwarranted, validation, vetting, vicious atmosphere, vis-à-vis, viz, waive, write off, ad interim, adjourn, sine die, in lieu off, inter alia, intese pros& cons.

Ref.:

1. Business Communications & Customer relation by Dr. Gupta,G.B.
2. Business Communications by Dr. Urmila Rani & Rai S.M.
3. Manual of office management & correspondence by Tondon, B.N.
4. Business organization & Management by Reddy P.N. & GulshanS.S.
5. Fundamentals of Business organization & Management by Bhushan Y.K.
6. Principles & practice of Management by Chatterji S.S.
7. Office Management by Chopra R.K.
8. Business communication: Effective Business English & correspondence by Ramesh M.Sc. & Pattanshetti.

Part B (Practical)

Maximum Marks: 20
Time: 3 Hours

1. Group Discussion
2. Resume
3. Resume Writing (Summary of what transpired during the interview).
4. How to face interview.
5. Conversation (Vocabulary, Communication skills)

Semester -II
Course: B.Sc. (Hons) IT
Paper Code: BSIT-202
Nomenclature: Mathematical foundations for Information Technology-II

Max. Marks: 40+10
Time: 3hrs.

UNIT-I

Computational Techniques: Iterative Method: Bisection, false position, Newton – Raphson methods, Iteration methods, discussion of convergence, Bairstow's methods,

UNIT-II

Solution of simultaneous linear equation and ordinary differential equation.
Gauss Elimination methods, pivoting, ill conditioned equation, refinement of solution,

UNIT-III

Gauss-seidal iterative method, Euler method, modified-Euler method.
Taylor-series Method, Runge-Kutta method. Predictor corrector method, Jacobi method.

UNIT-IV

Interpolation and approximation: Polynomial interpolation, Newton, Lagrange,
Approximation of functions by Taylor series and Chebyshev polynomial.

Ref.:

1. Higher Engineering Mathematics by R.S.Grewal.
2. Numerical Methods for scientific and engineering by Jain & Iyenger.
3. Computer based numerical Algorithms by E.V.Krisnamurthy and S.sen (east-West Press)
4. Discrete Mathematical structures with application to computer science by J.P. Tremblay & Manohar
5. A text book of matrices by Shanti Narayana
6. Numerical Analysis by Jeevansons Publications for B.Sc.III.

Semester -II
Course: B.Sc. (Hons) IT
Paper Code: BSIT-203
Nomenclature: Electronic Devices and Circuits

Max. Marks: 40+10

Time: 3hrs.

UNIT-I

Drift and Diffusion currents in semiconductor (Basic idea only), junction diode and its characteristics, Space charge capacitors and diffusion capacitors (simple idea only). Zener Diode, Zener Diode as voltage regulator, LPF, HPF, BPF, BRF.

UNIT-II

Rectifier-HWR, FWR, Bridge FWR, Rectifier Parameters. Filters, L & C Filters (Simple idea only), Voltage Multiplier Circuits, Shunt and series clipping circuits, Clamping circuits.

UNIT-III

Junction Transistors, Potential curves in unbiased and biased transistors, transistor current components Early effect, static characteristics of CB and CE configuration (Active Saturation and cutoff regions), Transistor as an amplifier.

UNIT-IV

Junction field effect transistors (JEET), Qualitative description of JEET, Drain and transfer characteristics of JEET, MOSFET-Depletion and enhancement type, and their drain and transfer characteristics. Small signal low frequency FET model, CS and CD low frequency model.

Ref.:

1. Electronic Devices, Applications and integrated circuit by Kulshreshtha & Mehta.
2. Integrated Electronics by Millman & Hakies.

Course: B.Sc. (Hons) IT
Paper Code: BSIT-204
Nomenclature: DIGITAL ELECTRONICS-II

Max. Marks: 40+10

Time: 3hrs.

UNIT-I

Shift Register and interfacing devices: SISO, SIPO, PISO, PIPO, bidirectional shift register, ring counter, twisted ring counter.

UNIT-II

Weighted register DAC, Binary ladder DAC, Successive Approximation ADC, counter type ADC, Specification of DAC and ADC.

UNIT-III

Memories: Memory parameters, bipolar ROM, PROM, EPROM, E²PROM, bipolar static and dynamic RAM .

UNIT-IV

Magnetic core memory, magnetic surface memory, memory organization and operation, expanding memory size, content addressable memory.

Ref.:

1. Modern Digital Electronics By R.P.Jain

Paper Code: BSIT-205
Nomenclature: Electronic Communication-II

Max. Marks: 40+10
Time: 3hrs.

UNIT –I

Digital Modulation techniques: FSK, PSK, DPSK, BPSK, QPSK, ASK, Similarity b/w BPSK& BFSK (qualitative analysis only)

UNIT-II

Example of Error Control Coding, Methods of Controlling Errors , Types of Errors , Types of Codes ,Matrix Description of Linear Block Codes , Error Detection and Error correction capabilities of Linear Block Codes, Single Error-Correcting Hamming Codes.

UNIT-III

Binary Cyclic Codes : Algebraic Structure of Cyclic Codes, Encoding Using an (n-k) Bit Shift Register, Syndrome Calculation ,Error Detection and Error Correction.

UNIT –IV

Information Theory and coding: Discrete messages, The concept of amount of information, average information, entropy, information rate, Shanon-Fano coding, shanon's theorm, channel capacity, comparison of error rate in codes and uncoded transmission, Huffman coding, Shanon- Hartley theorem and its implications

Ref.:

1. Principle of Communication by Taub Schilling
2. Analog & Digital Communication Systems by K. Sam Shanmugam

Course: B.Sc (Hons) IT
Paper Code: BSIT-206
Nomenclature: Programming Techniques

Max. Marks: 40+10
Time: 3hrs.

Unit-I

Purpose of program planning, flowcharts: Meaning, Use, Symbols Used Levels of Flowcharts, Flowcharting rules, Advantages and limitations, Decision tables, pseudocode: Meaning, pseudocodes for Basic Logic(Control) Structures, Advantages and Limitations.

Unit –II

Introduction to Computer problem-solving aspect, algorithms: its meaning, representation of Algorithm, Top down Design Implementation of algorithms, Program Verifications, Efficiency of Algorithms, Analysis of Algorithm.

Unit-III

Fundamental Algorithms: Summation of a set of numbers, Factorial computation, Sine Function Computation, Fibonacci sequence, Reversing the digits of an integer, Algorithm for factoring methods: Square root of number, Smallest divisor of an integer, Greatest Common Divisor, Generating Prime numbers, Pseudo Random numbers, raising a number to a large power, algorithm techniques for merge, sort, search operations

Unit-IV

Excel: Spreadsheet, creation, manipulation of spreadsheet, importing database, concepts of macros, charts and graphs.

Ref.:

1. How To Solve it by Computer by R.G. Dromey

Paper Code: BSIT-207 (IT LAB-I)
Nomenclature: Analog Electronics (Practical)

M.M: 50
Time: 3 hrs

Instruction for the examiners: A candidate is required to perform one experiment out of the list below.

Note:-

1. This practical paper is to be studied during Semester 1 & 2. But the examination is to be held after Semester 2 only.
2. A candidate is required to perform 6 Experiments from the list given below.
3. The number of students in a group must not exceed 10.

Distribution Of Marks

Experiment: 25 Practical Work Book: 15

Viva Voce: 10

1. PN Junction diode characteristics and calculation of reverse and forward bias incremental resistance.
2. To study HW and FW rectifier circuits and calculation of ripple factor using C, LC and LLC filters.
3. To study CE characteristics of BJT.
4. To study drain and transfer characteristics of JFET and to calculate drain resistance, transfer conductance and amplification factor.
5. Study of CRO for measuring amplitude and frequency of signal.
6. To design basic logic gates–AND, OR, NOT gates.
7. To design DTL/TTL NAND gates.
8. To measure the resistivity of semiconductor material using four probe method.
9. To study the capacitance voltage characteristics of a p-n junction.
10. To study the transfer characteristics of a BJT inverter.

Semester 1 & 2
Course: B.Sc. (Hons) IT

Paper Code: BSIT-208 (IT LAB-II)
Nomenclature: Digital Electronics (Practical)

M.M: 50
Time: 3 hrs

Instruction for the examiners: A candidate is required to perform one experiment out of the list below.

Note:-

4. This practical paper is to be studied during Semester 1 & 2. But the examination is to be held after Semester 2 only.
5. A candidate is required to perform 6 Experiments from the list given below.
6. The number of students in a group must not exceed 10.

Distribution of Marks

Experiment: 25
Practical Work Book: 15

Viva Voce: 10

LIST OF EXPERIMENTS

- 1 Half adder/Full adder.
- 2 Multiplexer/ Demultiplexer.
- 3 JK, D and T flip flop.
- 4 Ripple binary counter
- 5 Ripple binary counter.
- 6 Shift register.
- 7 Divide by N Counter.
- 8 DAC
- 9 Up-down Counter.
- 10 Digital trainer using AOI gates
- 11 Digital trainer using NAND gates
- 12 BCD decade counter using CMOS using 4033IC.

Semester 1 & 2

Course: B.Sc. (Hons) IT
Paper Code: BSIT-209 (IT LAB-III)
Nomenclature: Electronic Communication (Practical)

M.M: 50
Time: 3 hrs

Instruction for the examiners: A candidate is required to perform one experiment out of the list below.

Note:-

1. This practical paper is to be studied during Semester 1 & 2. But the examination is to be held after Semester 2 only.
2. A candidate is required to perform 6 Experiments from the list given below.
3. The number of students in a group must not exceed 10.

Distribution of Marks

Experiment: 25
Practical Work Book: 15

Viva Voce: 10

LIST OF EXPERIMENTS

1. Study of Amplitude Modulation and demodulation and calculation of modulation index (using Kit)
2. Study of Frequency Modulation. Wave form tracing (using Kit).
3. Study of pulse Amplitude Modulation using IC 555 (using Kit).
4. Study Pulse width Modulation using IC 555 (using Kit).
5. Study of Pulse Position Modulation using IC 555 (using Kit).
6. Study of ASK Modulation and Demodulation (using Kit).
7. Study of FSK Modulation and demodulation (using Kit).
8. Design of IC-555 timer as Monostable Multivibrator.
9. Design of IC-555 timer as Astable Multivibrator.
10. Study of propagation in Optical fiber (using optical fibre kit).
11. Study of time Division multiplexing of voice and data (using optical fibre kit).
12. Study of Digital multiplexing (using optical fibre kit).
13. To calculate the attenuation of the signal transmitted through optical fibres of different length (using optical fibre kit).
14. Calculation of bit rate for digital link and bandwidth for analog link.
15. Manchester coding for fibre optic communication (using optical fibre kit).
16. Voice coding: A-law and Mu-law (using optical fibre kit).

Semester 1 & 2
Course: B.Sc. (Hons) IT

Paper Code: BSIT-210 (IT LAB-IV)
Nomenclature: Computer Fundamentals & Office Tools (Practical)

M.M: 50
Time: 3 hrs

Instruction for the examiners: A candidate is required to perform one experiment out of the list below.

Note:-

1. This practical paper is to be studied during Semester 1 & 2. But the examination is to be held after Semester 2 only.
2. A candidate is required to perform 6 Experiments from the list given below.
3. The number of students in a group must not exceed 10.

Distribution of Marks

Experiment: 25
Practical Work Book: 15

Viva Voce: 10

LIST OF EXPERIMENTS

1. Familiarization with basic DOS commands like screen handling, file & directory, disk, system handling commands.
2. Installation of MS DOS, windows & other S/W.
3. In MS DOS creation of auto exec. Bat file & config.sys files and its implementation in installation of PC.
4. Learn to create a folder, copy files, move files, delete files in Windows
5. *Learn to use the menu commands of MS-Word to Create, Edit, Modify, Format a document*
6. Setting up of various input/output devices (monitor, printer, mouse, keypad etc.) in window environment.
7. Learn to use menu commands of MS-EXCEL to create and manipulate a spread sheet.
8. Plot graphs and charts in MS EXCEL.
9. Use of multimedia applications using various multimedia tools.
10. Internet: creating & sending e-mail, downloading, accessing, surfing, chatting, sending attachments.
11. Assembling of a system/ Identification of H/W components.
12. H/W (Peripherals) installation.
13. Use of S/W Tools (scandisk, antivirus, defragmentation etc)
14. Installation of S/W (OS, Application).