SWAMI VIVEKANAND UNIVERSITY, SAGAR (M.P.)

SYLLABUS

For

Bachelor of Science (B.Sc.)

Course Code : BSC(IT)

Information Technology

Department of Computer Science
Faculty of Computer Science Application

Duration of Course	:	3 Year
Examination Mode	:	Yearly
Examination System	:	Non Grading

Swami Vivekanand University, Sironja Sagar (M.P.)
2017-2020

Swami Vivekanand University, Sagar (M.P.)

Department of Higher Education Govt. Of M.P.
Under Graduate year wise syllabus
As recommended by central board of studies and approved by
The governor of M.P.
उच्च षिक्षा विभाग, म.प्र.शासन
स्नातक कक्षाओं के लिये वार्षिक पद्धति अनुसार पाठ्यक्रम
केन्द्रीय अध्ययन मण्डल द्वारा अनुषंसित तथा म.प्र. के राज्यपाल द्वारा अनुमोदित
सत्रः 2017–18

Class : B.A./B.Sc./B.Com./B.Sc.(Home Science)/BCA/B.A.(Mgt.) --- **I Year**
Subject : Foundation Course (आधार पाठ्यक्रम)
Paper : I
Paper Name : हिन्दी भाषा और नैतिक मूल्य (Hindi Language & Moral Values)
Compulsory/Optional: Compulsory
Max Marks : नियमित (Hindi Language = 25) +(Moral Values = 05)+ CCE 05 = 35

Particulars/विवरण

Unit-I	हिन्दी भाषा स्वतंत्रता पुकारती (कविता) – जयषंकर प्रसाद पुष्प की अभिलाषा (कविता) – माखनलाल चतुर्वेदी वाक्य संरचना और अषुद्धियां (संकलित)
Unit-II	हिन्दी भाषा नमक का दरोगा (कहानी) – प्रेमचंद एक थे राजा भोज (निबंध) – डॉ त्रिभुवननाथ शुक्ल पर्यायवाची, विलोम, एकार्थी, अनेकार्थी एवं शब्दयुग्म शब्द (संकलित)
Unit-III	हिन्दी भाषा भगवान बुद्ध (निबंध) – स्वामी विवेकानंद लोकतंत्र एक धर्म है (निबंध) – डॉ. सर्वपल्ली राधाकुष्णन नही रूकती है नदी – हीरालाल बाछोतिया पल्लवन
Unit-IV	हिन्दी भाषा अफसर (निबंध) – शरद जोषी हमारी सांस्कृतिक एकता (निबंध) – रामधारी सिंह दिनकर (एक भारत श्रेष्ठ भारत के अन्तर्गत) संक्षेपण (संकलित)
Unit-V	नैतिक मूल्य नैतिक मूल्य परिचय एवं वर्गीकरण (आलेख) – डॉ. शषि राय आचरण की सभ्यता (निबंध) – सरदार पूर्णसिंह अंतर्ज्ञान और नैतिक जीवन (लेख) – स्वामी श्रद्धानंद

नोटः–नियमित विद्यार्थियो के लिए 30 अंको की सैद्धातिक परीक्षा तथा 05 अंको का आंतरिक मूल्यांकन होगा

अंक विभाजन – नियमित विद्यार्थियो के लिए कुल 30 अंक
खण्ड – अ – प्रत्येक इकाई से एक वस्तुनिष्ठ प्रष्न 1 X 5 = 5
खण्ड – ब – इकाई एक से चार तक तीन लघु उत्तरीय प्रष्न आंतरिक विकल्प के साथ 3 X 3 = 9
खण्ड – स – इकाई दो से पांच तक चार दीर्घ उत्तरीय प्रष्न 4 X 4 = 16

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Class : B.A./B.Sc./B.Com./B.Sc.(Home Science)/BCA/B.A.(Mgt.) --- **I Year**
Subject : Foundation Course (आधार पाठ्यक्रम)
Paper : II
Paper Name : English Language
Compulsory/Optional: Compulsory
Max Marks : 30 + Internal Assessment (5) = 35

Particulars/विवरण

Unit-I	Where the mind is without fear : Rabindranath Tagore. The Hero: R.K. Narayan. Tryst with Density Jawaharlaal Nehru. Indian weavers : Sarojnini Naidu. The portrait of a lady : Khushwant Singh. The Solitary Reaper : Willian Wordsworth.
Unit-II	Basic Language Skills : Vocabulary, Synonyms, Antonyms, Word formation, Prefixes Suffixes.
Unit-III	Basic Language Skills : Uncountable nouns, verbs, tenses, adverbs.
Unit-IV	Comprehension / Unseen Passage.
Unit-V	Composition and Paragraph writing.

नोटः–नियमित विद्यार्थियो के लिए 30 अंको की सैद्धातिक परीक्षा तथा 05 अंको का आंतरिक मूल्यांकन होगा

अंक विभाजन – नियमित विद्यार्थियो के लिए कुल 30 अंक
खण्ड – अ – प्रत्येक इकाई से एक वस्तुनिष्ठ प्रष्न 1 X 5 = 5
खण्ड – ब – इकाई एक से चार तक तीन लघु उत्तरीय प्रष्न आंतरिक विकल्प के साथ 3 X 3 = 9
खण्ड – स – इकाई दो से पांच तक चार दीर्घ उत्तरीय प्रष्न 4 X 4 = 16

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Class : B.A./B.Sc./B.Com./B.Sc.(Home Science)/BCA/B.A.(Mgt.) --- **I Year**
Subject : Foundation Course (आधार पाठ्यक्रम)
Paper : III
Paper Name : उद्यमिता विकास (Entrepreneurship Development)
Compulsory/Optional: Compulsory
Max Marks : 25 + Internal Assessment (5) = 30

Particulars/विवरण

Unit-I	Entrepreneurship Development - Concept and importance, function of enterpriser, Goal determination- Problems Challenges and solutions.
	उद्यमिता विकासः अवधारणायें एवं महत्व, उद्यमी के कार्य, लक्ष्य निर्धारण, समस्या चुनौतियाँ एवं समाधान।
Unit-II	Project Proposal - need and Objects – Nature of organization, Production Management, Financial Management, Marketing Management, Consumer Management.
	परियोजना प्रस्तावः आवष्यकता एवं उद्देष्य – संगठन का स्वरूप, उत्पादन प्रबंधन, वित्तीय प्रबंधन, विपणन एवं उपभोक्ता प्रबंधन।
Unit-III	Role of regulatory Institutions, Role of development Organizations and self employment oriented schemes, Various growth schemes.
	उद्यमिता हेतु नियामक संस्थाओ की भूमिका। विकासात्मक संस्थाओं की भूमिका, स्वरोजगार मूलक योजनायें, विभिन्न अनुदान योजनायें।
Unit-IV	Financial Management for Project – Financial institution and their role, Capital estimation and arrangement, cost and price determination, accounting management
	परियोजना हेतु वित्तीय प्रबंधनः पूंजी अनुमान एवं व्यवस्था, लोगत एवं मूल्य निर्धारण, लेखा – जोखा रखना।
Unit-V	Problem of entrepreneur – Problem relating capital, Problem relating Registration, administration problem and how to overcome
	पूंजी संबंधी समस्याऐं, पंजीकरण संबंधी समस्याये, प्रषासकीय समस्याऐं एवं उपरोक्त समस्याओं का समाधान।

नोटः–नियमित विद्यार्थियो के लिए 25 अंको की सैद्धातिक परीक्षा तथा 05 अंको का आंतरिक मूल्यांकन होगा

अंक विभाजन – नियमित विद्यार्थियो के लिए कुल 30 अंक
खण्ड – अ – प्रत्येक इकाई से एक वस्तुनिष्ठ प्रष्न 0.5 X 5 = 2.5
खण्ड – ब – प्रत्येक इकाई से एक लघु उत्तरीय प्रष्न आंतरिक विकल्प के साथ 1.5 X 5 = 7.5
खण्ड – स – प्रत्येक इकाई से एक दीर्घ उत्तरीय प्रष्न 3 X 5 = 15

BSCIT-104
Computing Logics & Reasoning

UNIT-I Marks -10

Number Systems Natural numbers integers rational numbers real numbers Complex arithmetic module a positive integer (binary, octal, decimal & hexadecimal number systems) radix & representation of integers, representing negative & rational numbers, floating point notation

UNIT-II Marks -10

Binary arithmetic, 2'5 Complement arithmetic, conversion of numbers from one of binary / octal / decimal / Hexadecimal number system to other number systems codes (natural BCD, Excess -3 gray, octal, hexadecimal alphanumeric – EBCDIC & ASCIT) error codes

UNIT-III Marks -10

Low of formal logic, connectivity, propositions, conditional WFF, tautology, Contradiction, Logical equivalence, Law of Logic, duality, Logical in placations Normal forms, Sets, Sub-sets, finite & infinite Sets universal , Power, disjoint sets, Property of sets, union intersection sets, distributive Compliment & Property of Complement , Venn diagram , difference, Cartioan Product Setc.

UNIT-IV Marks -10

Relation Property, irreflexsive, asymmetric, compatible universal complementary relation, equivalence class, co-ordinate diagram, transitivity, extension, closure matrix representation and diagraph, functions, mapping composition of functions, associative mapping composition of functions, associative mapping, inverse mapping characteristics functions, functions, recursions linear recursions relation, non – homogenous relations

UNIT-V Marks -10

Partial ordering, total order set, dual order, hassle Diagram, lexicographic ordering, Least & greatest element, minimal & maximal element, Upper & lower bound, well – order Set , Operations well – ordering theorem, lattice property, Bound, lattices, direct product, Boolean algebra, homomorphism minimization function, gates, Boolean algebra & applications

TEXT & REFERENCE BOOKS:

COMPUTERS TODAY, BY S.K BASANDRA, GALGOTIA PUBLICATIONS. FUNDAMENTALS OF INFORMATION TECHNOLOGY ALEXIS LEON & MATHEWS LEON, , VIKAS PUBLISHING

DOS QUICK REFERENCE RAJEEV MATHUR, GALGOTIA PUBLICATIONS

BSCIT-105

Basic of Computer

UNIT-I **Marks -10**

Introduction to computer : Deginition, characteristics classification of computers, Analog computers, digital computers, hybrid computers, classification of computer on the bass of size & speed, different type of computers, Generation of computer.

UNIT-II **Marks -10**

Computer keyboard, pointing device, mouse, track ball, touch pad, joystick, touch-sensitive screens, pen based systems, digitizer, data scanning devices, optical recognition systems bar- code readers, optical- mark readers, optical scanner, drum scanners, hand scanner flatbed scanner, wed camera, gamepad digital camera.

UNIT-III **Marks -10**

Hard copy devices: Printer, impact printers, daisy wheel, dot matrix printer, line printer, chain printers, comb- printers. Non- impact printers, DeskJet , inkjet Printers Laser Printer, thermal transfer Printer, barcode printers. Computer display: CRT, LCD, Projection displays, plasma display panel display standard , mono Chrome display HGA, CGA, EGA, VGA, MGA, SVGA, XGA, QVGA, SXGA, UXGA. Introduction to memory, Classifications random – access memory, volatile memory, Non volatile memory , flash memory, read only memory, secondary memory, cache memory, auxiliary storage memory memory hierarchy, storage device, magnetic tape, magnetic disk, floppy disk, hard disks, CD, DVD, Magneto optical.

UNIT-IV **Marks -10**

Number system, binary, octal, hexadecimal, addition, subtraction, multiplications, computer code: BCD, ASC II EBCDIC code, Excess -3 code, gray code, software user interface, system software, programming software application software logic gates & Boolean algebra representation & simplification by kmap:

Computer viruses: Introduction, history, types of computer viruses, classification of viruses' way to catch a computer virus, symptoms of a computer virus.

Application of Computer: Desktop Publishing, sports, design manufacturing research & design, military, robotics, planning and management, marketing, medicine & health case, arts communications, scientific education.

UNIT-V
Marks -10

Introduction Of Internet, History, IP, TCP & UDP, Application Protocol, word wide web, how the web works, web standards website, overview, types of websites, electronic mail, internet , email header, saved message file extension messages & mailboxes, introduction to intranet, user advantages disadvantages,

Introduction to data ware house, Components of a data ware house, different methods of storing data in a data warehouse, advantages of using data ware house.

Reference Books

1. COMPUTERS TODAY, BY S.K BASANDRA, GALGOTIA PUBLICATIONS.
2. FUNDAMENTALS OF INFORMATION TECHNOLOGY ALEXIS LEON & MATHEWS LEON, , VIKAS
3. DOS QUICK REFERENCE RAJEEV MATHUR, , GALGOTIA PUBLICATIONS

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BSCIT-106

Office Automation PC Software

UNIT-I **Marks -10**

MS-windows: Introduction to MS-Windows, concept of GoI, Windows explorer control panel, accessories, running applications under ms-windows.

UNIT-II **Marks -10**

MS word: Introduction to MS- word standard toolbar, word wrap, text formation, formatting paragraphs applying effects to text, applying Animation tect.

UNIT-III **Marks -10**

Introduction to MS- Excel, working with toolbar, formation, formulas, data management, graphs &
charts, macros & other additional functions.

UNIT-IV **Marks -10**

MS- Power Point: Introduction to power point, slide creating slideshow, adding graphics, formation customizing & printing

UNIT-V **Marks -10**

MS- Access: Introduction, understanding data bases, creation a database & tables automatically, creating and customizing a form adding, editing, sorting & Searching of records creating & printing reports, queries, creation a database & application, linking, importing & exporting data form, creating reports, creating charts & pivot tables

TEXT & REFERENCE BOOKS:

- *WINDOWS XP COMPLETE REFERENCE. BPB PUBLICATIONS MS OFFICE XP COMPLETE BPB PUBLICATION*
- *MS WINDOWS XP HOME EDITION COMPLETE, BPB PUBLICATION.*
- *JOE HABRAKEN, MICROSOFT OFFICE 2000, 8 IN 1, BY, PRENTICE HALL OF INDIA*
- *I.T TOOLS AND APPLICATIONS, BY A. MANSOOR, PRAGYA PUBLICATIONS, MATURA*

BSCIT-107

C Programming & Data Structure

UNIT-I
Marks -10

"C" Language: Types, Operators & expressions, Variable names data types & sizes, constants, declarations, operator, expressions & type conversions.

UNIT-II
Marks -10

Control Statement, loop, jump, functions & Program Structure, Pointer and arrays, structure, union
& typed of file handling , file function.

UNIT-III
Marks -10

Data Structures: Arrays, stacks, Queues d-queue, linked lists, single link list, double link list, trees, threaded tree, b-tree, graphs, depth first search, breath, first search kruskal algorithm, prism algorithm prefix, post fix, pnfix Pn-order, Pre- order, Post- order, recursive functions.

UNIT-IV
Marks -10

Sorting: Internal & external sorting Quick sort, merge. – Sort, bubble, Pnsertion , selection sorting

UNIT-V
Marks -10

Shortest Path trowel salesman problem, searching techniques & merging algorithms.

TEXT & REFERENCE BOOKS:

PROGRAMMING IN C BY E. BALAGURUSWAMI, TMH PUBLICATIONS
PROGRAMMING WITH C BY GOTTFRIED, SCHAUMS OUTLIE SERIES, TMH PUBLICATIONS
THINKING IN C BY MAHAPATRA, PHI PUBLICATIONS GRAPHICS
PROGRAMMING IN C BY STEVENS, BPB PUBLICATION PROGRAMMING IN C BY R SUBBURAJ, VIKAS PUBLISHING

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BSCIT-108

Circuit Analysis & Electronics device

UNIT-I
Marks -10

Number system & Codes:- Binary decimal, octal, Hexadecimal & their interconversions.

Codes: BCD, Excess-3 Gray code etc.

UNIT-II
Marks -10

Digital electronics signals & switches : - Concept on digital signal, logic levels, Active high, Active low Signals, Switching characteristic of semiconductor diode, transistor

UNIT-III
Marks -10

Logic Gates: - AND, OR, NOT, NOR, NAND, EX-OR, EX-NOR Operations and their truth : k maps & Quine . Mcclusky

UNIT-IV
Marks -10

Arithmetic ape rations: Binary Addition, Subtraction multiplication , division, as complement Subtraction circuits: Haff- Adder, Half Subtracter, Full Subtracter, 2- bit by 2-bit multiplier various code converters

Multiplexers (MUX): working of mux, implementation of expression using MJX

Demultiplexerr (DEMUX) Implementation of expression using Demux , Decoder. Flip-Flop

: Concept Of Sequencial Circuit, S-R, JK Preset & Clear Master.

UNIT-V
Marks -10

Slave JkD, T Flip Flops Their Truth Tables & excitation tables, Concussion from one type to another type of Flip Flop Registers. Logic Timelier& their characteristics:- Characteristic of digital ICs.

TEXT & REFERENCE BOOKS :

Electrical Engineering Fundamentals by Vincent Del Toro
Electrical and Electronics Engineering for Scientists by K.A.Krishnamurthy and M.R.Raghuveer
Fundamentals of Electrical Engineering by Rajendra Prasad
Semiconductor Physics and Devices by D. A. Neamen
Microelectronic Devices by E.S. Yang
Solid State Electronic Devices" by B.G. Streetman
Microelectronics by J. Millman and A. Grabel
Microelectronic Circuits by A.S. Sedra and K.C. Smith
Microelectronics: An Integrated Approach by R.T. Howe and C.G. Sodini

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BSCIT-109

DBMS Using FoxPro Programming

UNIT-I **Marks -10**

Object of database systems, data abstraction, data definition language, data manipulation language, database manager , database administrator, trade offs between utilities of data & Control of data.

UNIT-II **Marks -10**

Entity Relationship model, entities & entity sets their relationship, mapping constraints, generalization aggregation, use of ER model for the design of databases, implementation trade obbs of Sequential random, index Sequential file organization relational algebra, relational calculus and normalization up to DkNF.

UNIT-III **Marks -10**

Relational Query Language: DDL,DML, database integrity, domain integrity, entity integrity, referential integrity, Security, authorization, access Matrix, Concurrency, Locks, Serializability recovery.

UNIT-IV **Marks -10**

Introduction to Fox Pro: Creation of database, field types, adding records, editing & deleting of data viewing data, navigating in data file searching of data memory variables & arrays.

UNIT-V **Marks -10**

Sorting the database, indexing, compound index files Managing multiple data files, Setting environment using SET commands, Setting filters, setting relations date & time functions, character & file functions. Programming with Fox-Pro, input & Output, Making decisions , loop constructs, debugging programs setting up of screen displays, procedures and with defined functions, creating & Printing for matted reports.

TEXT & REFERENCE BOOKS:

ELMASRI AND NAVATHE, FUNDAMENTALS OF DATABASE SYSTEMS [4E],PEARSON EDUCATION

RAGHU RAMAKRISHNAN, JOHANNES GEHRKE, DATABASE MANAGEMENT SYSTEMS [3E], MCGRAW-HILL

KORTH, SILBERCHATZ, SUDARSHAN, DATABASE SYSTEM CONCEPTS, MCGRAW-HILL. PETER ROB AND

CORONEL, DATABASE SYSTEMS, DESIGN, IMPLEMENTATIONAND MANAGEMENT, THOMSON LEARNING

.

C.J.DATE, LONGMAN, INTRODUCTION TO DATABASE SYSTEMS, PEARSON EDUCATION

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Subject : Foundation Course (आधार पाठ्यक्रम)
Paper : I
Paper Name : हिन्दी भाषा और नैतिक मूल्य (Hindi Language & Moral Values)
Compulsory/Optional: Compulsory
Max Marks : नियमित (Hindi Language = 25) +(Moral Values = 05)+ CCE 05 = 35

Particulars/विवरण

Unit-I	हिन्दी भाषा वह तोड़ती पत्थर (कविता) – सूर्यकान्त त्रिपाठी निराला दिमागी गुलामी (निबंध) – राहुल सांकृत्यायन वर्ण – (स्वर– व्यंजन, वर्गीकरण, उच्चारण स्थान)
Unit-II	हिन्दी भाषा नारीत्व का अभिषाप (निबंध) – महादेवी वर्मा चीफ की दावत (कहानी) – भीष्म साहनी विराम चिन्ह – (संकलित)
Unit-III	हिन्दी भाषा चली फगुनाहट बौरे आम (ललित निबंध) – विवेकी राय इन्द्रधनुष का रहस्य (वैज्ञानिक लेख) – डॉ. कपूरमल जैन संधि – (संकलित) पल्लवन
Unit-IV	हिन्दी भाषा सपनों की उड़ान (प्रेरक निबंध) – ए.पी.जे. अब्दुल कलाम हमारा सौरमण्डल (संकलित) समास (संकलित)
Unit-V	नैतिक मूल्य षिकागों व्याख्यान (व्याख्यान) – स्वामी विवेकानंद धर्म और राष्ट्रवाद (लेख) – महर्षि अरविन्द सादगी (आत्मकथा) – महात्मा गांधी चित्त जहॉ भय शून्य (कविता) – रवीद्रनाथ टैगोर

नोटः–नियमित विद्यार्थियो के लिए 30 अंको की सैद्धातिक परीक्षा तथा 05 अंको का आंतरिक मूल्यांकन होगा

अंक विभाजन – नियमित विद्यार्थियो के लिए कुल 30 अंक
खण्ड – अ – प्रत्येक इकाई से एक वस्तुनिष्ठ प्रष्न 1 X 5 = 5
खण्ड – ब – इकाई एक से चार तक तीन लघु उत्तरीय प्रष्न आंतरिक विकल्प के साथ 3 X 3 = 9
खण्ड – स – इकाई दो से पांच तक चार दीर्घ उत्तरीय प्रष्न 4 X 4 = 16

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स्नातक कक्षाओं के लिये वार्षिक पद्धति अनुसार पाठ्यक्रम
केन्द्रीय अध्ययन मण्डल द्वारा अनुषंसित तथा म.प्र. के राज्यपाल द्वारा अनुमोदित
सत्रः 2018–19

Class : B.A./B.Sc./B.Com./B.Sc.(Home Science)/BCA/B.A.(Mgt.) --- **II Year**
Subject : Foundation Course (आधार पाठ्यक्रम)
Paper : II
Paper Name : English Language
Compulsory/Optional: Compulsory
Max Marks : 30 + Internal Assessment (5) = 35

Particulars/विवरण

Unit-I	Tree: Tina Morris. Night of the Scorpion: Nissim Ezekiel. Idgah : Premchand (translated by khushwant Singh). Letter of God : G.L. Swanteh (translated by Donald A. Yates). My Bank Account : Stephen Leacock. God sees the truth but waits : Leo Tolstoy.
Unit-II	Basic English Language : Idioms, Proverbs and Phrasal Verbs, Tenses, Prepositions, Determiners, Verbs Articles, Nouns & Pronouns.
Unit-III	Short Essay on given topics. Correspondence Skills (Formal & Informal letters and Application)
Unit-IV	Translation of sentences / passage English to Hindi and Hindi to English.
Unit-V	Drafting CV.

नोटः–नियमित विद्यार्थियो के लिए 30 अंको की सैद्धातिक परीक्षा तथा 05 अंको का आंतरिक मूल्यांकन होगा

अंक विभाजन – नियमित विद्यार्थियो के लिए कुल 30 अंक
खण्ड – अ – प्रत्येक इकाई से एक वस्तुनिष्ठ प्रष्न 1 X 5 = 5
खण्ड – ब – इकाई एक से चार तक तीन लघु उत्तरीय प्रष्न आंतरिक विकल्प के साथ 3 X 3 = 9
खण्ड – स – इकाई दो से पांच तक चार दीर्घ उत्तरीय प्रष्न 4 X 4 = 16

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सत्रः 2017–18

Class : B.A./B.Sc./B.Com./B.Sc.(Home Science)/BCA/B.A.(Mgt.) --- **II Year**
Subject : Foundation Course (आधार पाठ्यक्रम)
Paper : III
Paper Name : पर्यावरण अध्ययन (Environmental Studies)
Compulsory/Optional: Compulsory
Max Marks : 30

Particulars/विवरण

Unit-I	**Study of Environment and Ecology :** (a.) Definition and importance. (b.) Public participation and public awareness. (c.) Ecology – Introduction. (d.) Ecosystem – Concepts, components, structure & function, energy flow. food chain. food web, ecological pyramids and types.
	पर्यावरण एवं पारिस्थितिक अध्ययन : (क.) परिभाषा एवं महत्व (ख.) जनभागीदारी एवं जनजागरण (ग.) पारिस्थितिकी – प्रस्तावना (घ.) पारिस्थितिक तन्त्र – अवधारणा, घटक, संरचना तथा कार्यप्रणाली ऊर्जा का प्रवाह, खाद्य श्रृंखला, खाद्य जाल, पारिस्थितिक पिरामिड तथा प्रकार।
Unit-II	**Environmental Pollution and Population :** (a.) Air, water, noise, Heat and nuclear pollution. definition, causes, effect and prevention of pollution. (b.) Population growth, disparities between countries. (c.) Population explosion, family welfare programme. (d.) Environment and human health. (e.) Cleanliness and disposal of domestic waste.
	पर्यावरण प्रदूषण तथा जनसंख्या (क.) चायु, जल, ध्वनि, तापएवं आणविक प्रदूषण– परिभाषा प्रदूषण के कारण प्रभाव एवं रोकथाम। (ख.) जनसंख्या – वृद्धि, राष्ट्रों के बीच अन्तर। (ग.) जनसंख्या – विस्फोट, परिवार कल्याण कर्याक्रम। (घ.) पर्यावरण और मानव स्वास्थ्य। (ड.) स्वच्छता एवं घरेलू कचरे का निष्पादन।
Unit-III	**Natural Resources, Problems and Conservation :** (a.) Water Resources. (b.) Forest Resources. (c.) Land Resources. (d.) Food Resources. (e.) Energy Resources.
	प्राकृतिक संसाधन, समस्याएँ तथा संरक्षण : (क.) जल संसाधन।

	(ख.) वन संसाधन। (ग.) भूमि संसाधन। (घ.) खाद्य संसाधन। (ड.) ऊर्जा संसाधन।
Unit-IV	**Bio-diversity and its Protection** (a.) Introduction- Genetic, species and ecosystem diversity. (b.) Value of bio-diversity – Consumable use : Productive use. Social, Moral and Aesthetic values (c.) India as a nation of mega bio-diversity centre. bio-diversity at national and local levels. (d.) Threats to bio-diversity – Loss of habitat, poaching of wildlife, man and wildlife conflicts.
	जैव विविधता ओर उसका संरक्षण : (क.) प्रस्तावना : अनुवांषिक, जातीय तथा पारिस्थितिक विविधता। (ख.) जैव विविधता कामूल्य – उपभोग्य उपयोग, 3 उत्पादक उपयोग सामाजिक, नैतिक तथा सौन्दर्यगत मूल्य। (ग.) वृहत जैवविविधता केन्द्र के राष्ट्र रूप में भारत, राष्ट्रीय तथा स्थानीय स्तरो पर जैव विविधता। (घ.) जैव विविधता के खतरे – आवासीय हानि, वन्य जीवन में अनाधिकार घुसपैठ तथा मानव त्न्य जीवन – संघर्ष।
Unit-V	**Disaster Management and Environment and Environmental laws :** (a.) Disaster Management – flood, earthquake, cyclones and landslides. (b.) Conservation of laws for air and water pollution. (c.) Wildlife conservation laws. (d.) Role of information technology in protecting environment and health.
	आपदा प्रबंधन तथा पर्यावरण संरक्षण कानून : (क.) आपदा प्रबंधन– बाढ़, भूकंप चक्रवात एवं भूस्खलन। (ख.) वायु तथा जल प्रदूषण– संरक्षण कानून। (ग.) वन्य प्राणी संरक्षण कानून। (घ.) पर्यावरण तथा स्वास्थ्य रक्षा में सूचना प्रौद्योगिकी की भूमिका।

नोटः–नियमित विद्यार्थियो के लिए 25 अंको की सैद्धातिक परीक्षा तथा 05 अंको का आंतरिक मूल्यांकन होगा

Marks distribution for paper setters:		**for regular students**
Section A :	Objective Type	0.5 X 5 = 2.5
Section B :	Short Answer Type	1.5 X 5 = 7.5
Section C :	Long Answer Type	3 X 5 = 15
	Total	**25**

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BSCIT-204

Computers Oriented statistical Methods

UNIT-I **Marks -10**

Characteristics of Numerical Computation Approximation Significant, Digit, Errors Introduction to matrix, Types of Matrix Square, Row, column, Diagonal, Unit, Null, Upper- Triangular, Lower Triangular, Symmetric, Skew Symmetric.

UNIT-II **Marks -10**

Operation of Matrix, trace, transpose, addition, Subtraction multiplication, determinant, inverse, Introduction to Linear Equations.

UNIT-III **Marks -10**

Bisection Method, Method of successive approximation Method of false position, Newton's iteration method, Newton Raphoon Method Horner's method.

UNIT-IV **Marks -10**

Gauss Jordan method, Gauss alimentation Method Iterative methods, Jacobi method of iteration, Gauss Sealed Iteration Method.

UNIT-V **Marks -10**

Gregory Newton Forward & Backward interpolation formula Gauss forward and backward difference interpolation formula, interpolation with unequal intervals.

References :-

Gupta and Dasgupta : Fundamental Mathematical Statistics Vol. I. 2. Kishor S. Trivedi : Probability and Statistics with Reliability. 3. Kapoor & Saxena : Mathematical Statistics. 4. Gupta & Kapoor : Fundamentals of Mathematical Statistics. 5. P. Mayer : Introductory Probability 6. Weather Burn : Mathematical Statistics.

BSCIT-205

Analog Circuits and Communications

UNIT-I **Marks -10**

Power supplies: Rectifiers- Half wove, full wove & bridge rectifiers- efficiency- Ripple tractor- Regulation- Harmonic components in rectified output, Types of filters- choke –input (inductor) filter- Shunt Capacitor filter – Capacitor filter- L Section and O Section filters- Block diagram of regulated Power Supplier- Three terminal regulators (78XX&79XX).

UNIT-II **Marks -10**

Principle and working of Switch mode power supply (SMPS) RC Coupled Amplifier Analysis and frequency response of Single Stage RC Coupled Amplifier Feedback: Positive and negative feedback- Effect of feedback on gain band width , noise input & output impedances.

UNIT-III **Marks -10**

Operational Amplifiers: Differential Amplifier, Block diagram of op- amp, Ideal characteristics of op- Amp- Op- Amp Parameters- Input resistance- output resistance common – mode reiection ratio (CMMR) , Slew rate, offset Voltages Input bier current , Basic op-Amp circuits, inverting Op- Amp virtual ground, Non inverting op- Amp, frequency response of op-Amp, Interpretation of op- Amp datasheets.

UNIT-IV **Marks -10**

Application of op- Amps: Summing amplifier, sub tractor voltage follower Integrator, Differentiator, comparator Logarithmic amplifier, sine wave (we in Bridge) and Square wave (As table) , generators, Triangular wave generator , Mono stable , multi vibrator, Solving Simple second order differential equation Basic op-Amp Series regulator and shunt regulator.

UNIT-V **Marks -10**

Communication: Need for modulation, Types of modulation, Amplitude, frequency & Phase modulation, -side Bands modulation index, Square law diode modulator, De modulation , diode detector. Frequency modulation working of simple frequency of frequency modulation Am & FM radio receivers (Block diagram approach).

References :

A.K Sawhney
Measurements and Instrumentation Electrical and Electronics Measurements and Instrumentation
Electronic instrumentation H.L Kalsi Networks ad systems, D. Roy Chaudhary
Network theory Engineering circuit analysis
William Hayt
Digital design Morris mano
Digital systems
Tocci & Widmer
Digital electronics
Modern digital electronics
Elements of
Electromagnetics
Engineering electromagnetic
Antenna and wave propagation
Elements of engineering eletromagntics
R.P Jain, Sadiku, W.H. Hayt, K.D Prasad, Electromagnetic theory, N.N. Rao
Linear control system B.S Manke Control system engineering
I.J Nagrath
Control systems
Automatic control systems
B.C Kuo
Signal and system
Signals and systems
Alan V Oppenheim
Communication systems Simon Haykins
An introduction to digital and analog communications
Modern digital and analog communication systems
Simon Haykins
Singh and Sapre
Communication systems
Electronic communication systems
B.P. Lathi Integrated electronics
Jacob Millman Microelectronic circuits
Sedra and Smith
Electronic devices and circuits and analog electronics
Electronic devices and circuits
Op amp and digital integraed circuits
Solid state electronic devices Semiconductor devices
J.B Gupta Ramakant Gaekwad Streetma and Banerjee S.M Sze
A textbook on Analog circuits
Analog circuits A.Rajkumar

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BSCIT-206
Client Server Technology

UNIT-I Marks -10

Client /Server Computing: Evolution of client /Server concept definition, history, need and inactivation for Client /Server approach, Client/Server environments, characterization of client/server computing, client/server types and Examples.

UNIT-II Marks -10

Client /Server development tools, advantages of Client/ Server Technology, connectivity, user productivity reduction in network traffic, faster delivery of systems.

UNIT-III Marks -10

The Role of Client: Client request for service, dynamic data exchange, ole, common object Cole, Request Broker Architecture (CORBA), Components of Client/ Server applications.

The Role of Server: Server Functions, Network Operating System, System application Architecture, Novel Netware LAN manager, Server operating System.

UNIT-IV Marks -10

Architecture: Components of Client Server Architecture application partitioning the two-layer and three layer architecture Communication between Clients& Servers Use of APIs in Client/Server Computing, middle- ware technology in client / server computing Open System Inter connectivity (OSI) , Inter Process Communication (IPC).

UNIT-V Marks -10

Client/ system Administration, LAN Network Management Privacy and Security Issue, Developing applications on RDBM, GUI design Concepts.

Reference Books

1. Hossein Bidgoli Editor-in-Chief

1. Daniel McFarland and

2. Darren B. Nicholson

Client/Server Computing for Technical Professionals: Concepts and Solutions Paperback – Import, 14 Sep 1995

by Johnson M. Hart (Author), Barry J. Rosenberg (Author)

BSCIT-207
Java Programming

UNIT-I **Marks -10**

Introduction to Java, history, Characteristics, abject oriented programming, data types, variables arrays, difference between java and C++

UNIT-II **Marks -10**

Control Statements: Selection, iteration, jump statements operators, Introduction to Classes, fundamentals Constructor methods, Stack, Class, inheritance, creating multilevel hierarchy, method over riding packages and interfaces, exception handling, multithreaded programming I/o applets.

UNIT-III **Marks -10**

Java Library, String handling, string comparison, string buffer, utility Classer, vector stack dictionary applet Class, introduction to AWT, working with frame windows.

UNIT-IV **Marks -10**

Java beans, beans architecture, AWT components, Advantages of Java beans, beans Serialization, JDBC Class & Methods, API Components, IDBC Components Driver, Connectivity to database.

UNIT-V **Marks -10**

Processing result and interfaces, RMI, Comparison of distributed and Non- distributed Java programs, Interfaces, RMI Architecture layer, ODBC, CORBA, CORBA Services and Products, CGI, Structure of CGI.

Reference Books

JAVA THE COMPLETE REFERENCE BY PATRICK NAUGHTON AND HERBERT SCHILDT. TMH PUBLICATION ISBN 0-07-463769-X
PROGRAMMING WITH JAVA BY E. BALAGURUSWAMY TMH PUBLICATIONS ISBN 0-07-463542-5 USING JAVA 1.2 BY JOSEPH WEBER. PHI – ISBN-81-203-1558-9

BSCIT-208
Computer Graphics

UNIT-I Marks -10

Graphics Hardware: The functional Characteristics of the systems are emphasized, input devices: keyboard touch panel, light pens, graphic tablets, jay sticks, track ball, data glove, digitizer, image scanner mouse, voice Systems.

UNIT-II Marks -10

Hard Copy devices: Impact and non-impact Printers such as line Printer, dot matrix, Laser, inkjet, electrostatic, flat bed and drum plotters.

UNIT-III Marks -10

Video display devices: Refresh cathode ray tube, raster- scan displays, random scan displays, color CRT monitors, Direct View Storage tube, flat panel- displays, 3-D view devices, virtual reality, virtual reality, raster scan systems, random scan systems, graphics monitors and work stations.

UNIT-IV Marks -10

Scan Conversion Algorithms for line, circle and ellipse Bresenham's algorithms, area filling techniques, character generation,

UNIT-V Marks -10

2-dimensional graphics: Cartesian and Homogeneous co- ordinate system, Geometric trans formations (translation, scaling rotation, reflection, shearing, two dimensional viewing trans formation and clipping (line, polygon and text).

Reference Books

1.COMPUTER GRAPHICS : A PROGRAMMING, APPROACH – STEVEN HARRINGLOM (MGH)
2.COMPUTER GRAPHICS : SCHAUM'S OUTLINE SERIES
3.COMPUTER GRAPHICS : DONALD HEAON & M. PAULIVE BAKER (PHI)

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BSCIT-209

Object oriented technology and C++ Programming

UNIT-I **Marks -10**

Evolution of oop, oop paradigm, advantages of oop, comparison between functional programming and oop approach, characteristics of object oriented language objects, classes, inheritance, reusability user defined data types, polymorphism, overloading .

UNIT-II **Marks -10**

Introduction to C++ identifier and keywords, constants C++ operators, data type conversion , variable declaration statements, expressions, Input and Output, conditional expression loop statement, Breaking control statements Breaking control statements.

UNIT-III **Marks -10**

Function: Defining a function types of functions storage class specifies, recursion arrays, structures, pointers and structures, Unions.

UNIT-IV **Marks -10**

Classes, member function, objects, arrays of class objects pointers and Classes, nested classes, constructor, destructors, overloading and overriding inline member functions , static class member, friend functions, dynamic memory allocation.

UNIT-V **Marks -10**

Inheritance, Single inheritance, types of base classes types of derivation, multiple in heritance container- classes, member access Control, function, overloading operator overloading, polymorphism, virtual functions, pure virtual functions, Opening and classing of files stream state member functions.

Reference Books

HERBERT SCHILDT, “C++ THE COMPLETE REFERENCE ” - TMH PUBLICATION ISBN 0-07-463880-7
E. BALGURUSWAMY, “C++ ”, TMH PUBLICATION ISBN 0-07-462038-X M KUMAR “PROGRAMMING IN C++”, TMH PUBLICATIONS

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सत्रः 2019–20

Class : B.A./B.Sc./B.Com./B.Sc.(Home Science)/BCA/B.A.(Mgt.) --- **III Year**
Subject : Foundation Course (आधार पाठ्यक्रम)
Paper : I
Paper Name : हिन्दी भाषा और नैतिक मूल्य (Hindi Language & Moral Values)
Compulsory/Optional: Compulsory
Max Marks : नियमित (Hindi Language = 25) +(Moral Values = 05)+ CCE 05 = 35

Particulars/विवरण

Unit-I	हिन्दी भाषा मेरे सहयात्री (यात्रा वृतांत) – अमृतलाल बेगड। मध्यप्रदेष की लोक कलाएं (संकलित) लोकोक्तियॉ एवं मुहावरे (संकलित)
Unit-II	हिन्दी भाषा जनसंचार माध्यम (प्रिन्ट, इलै, एवं सोषल मीडिया) टूटते हुए (एकांकी) – सुरेष षुक्ल चंद्र ष संक्षिप्तियॉ
Unit-III	हिन्दी भाषा पत्रकारिता के विभिन्न आयाम (संकलित) मध्यप्रदेष का लोक साहित्य (संकलित) पत्र लेखन – आवेदन, प्रारूपण, आदेष परिपत्र ज्ञापन, अनुस्मारक (संकलित)
Unit-IV	हिन्दी भाषा राजभाषा, हिन्दी (संकलित) हिन्दी की संवैधानिक एवं व्यावहारिक स्थिति दूरभाष ओर मोबाइल (संकलित) हिन्दी की शब्द सम्पदा (संकलित) अनुवाद : अर्थ प्रकार एवं अभ्यास
Unit-V	नैतिक मूल्य विष्व के प्रमुख धर्म एवं महत्वपूर्ण विषेषताएं (हिन्दू धर्म, जैन धर्म, बौद्ध धर्म, सिक्ख धर्म, ईसाई धर्म, इस्लाम धर्म) सत्य के साथ मेरे प्रयोग (महात्मा गाँधी की आत्म कथा का संक्षिप्त संस्करण)

नोटः–नियमित विद्यार्थियो के लिए 30 अंको की सैद्धातिक परीक्षा तथा 05 अंको का आंतरिक मूल्यांकन होगा

अंक विभाजन – नियमित विद्यार्थियो के लिए कुल 30 अंक
खण्ड – अ – प्रत्येक इकाई से एक वस्तुनिष्ठ प्रष्न 1 X 5 = 5
खण्ड – ब – इकाई एक से चार तक तीन लघु उत्तरीय प्रष्न आंतरिक विकल्प के साथ 3 X 3 = 9
खण्ड – स – इकाई दो से पांच तक चार दीर्घ उत्तरीय प्रष्न 4 X 4 = 16

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उच्च षिक्षा विभाग, म.प्र.शासन
स्नातक कक्षाओं के लिये वार्षिक पद्धति अनुसार पाठ्यक्रम
केन्द्रीय अध्ययन मण्डल द्वारा अनुषंसित तथा म.प्र. के राज्यपाल द्वारा अनुमोदित
सत्रः 2019–20

Class : B.A./B.Sc./B.Com./B.Sc.(Home Science)/BCA/B.A.(Mgt.) --- **III Year**
Subject : Foundation Course (आधार पाठ्यक्रम)
Paper : II
Paper Name : English Language
Compulsory/Optional: Compulsory
Max Marks : 30 + Internal Assessment (5) = 35

Particulars/विवरण

Unit-I	Stopping by Woods on a snowy Evening: Robert Frost. Cherry Tree : Ruskin Bond. The Axe : R.K. Narayan. The Selfish Giant : Oscar Whilde On The Rule of the Road : A.G. Gardiner. The song of Kabir : Translated by Tagore
Unit-II	Basic Language Skills : Transformation of sentences, Direct-Indirect Speech, Active. Passive Voice, Confusing Words, Misused words, Similar words with different meaning.
Unit-III	Report Writing, Narration Skills, Narration of events and situations.
Unit-IV	Drafting of E-mails.
Unit-V	Drafting CV.

नोटः–नियमित विद्यार्थियो के लिए 30 अंको की सैद्धातिक परीक्षा तथा 05 अंको का आंतरिक मूल्यांकन होगा

अंक विभाजन – नियमित विद्यार्थियो के लिए कुल 30 अंक

खण्ड – अ – प्रत्येक इकाई से एक वस्तुनिष्ठ प्रष्न 1 X 5 = 5
खण्ड – ब – इकाई एक से चार तक तीन लघु उत्तरीय प्रष्न आंतरिक विकल्प के साथ 3 X 3 = 9
खण्ड – स – इकाई दो से पांच तक चार दीर्घ उत्तरीय प्रष्न 4 X 4 = 16

Swami Vivekanand University, Sagar (M.P.)

Department of Higher Education Govt. Of M.P.
Under Graduate year wise syllabus
As recommended by central board of studies and approved by
The governor of M.P.
उच्च षिक्षा विभाग, म.प्र.शासन
स्नातक कक्षाओं के लिये वार्षिक पद्धति अनुसार पाठ्यक्रम
केन्द्रीय अध्ययन मण्डल द्वारा अनुषंसित तथा म.प्र. के राज्यपाल द्वारा अनुमोदित
सत्रः 2019–20

Class : B.A./B.Sc./B.Com./B.Sc.(Home Science)/BCA/B.A.(Mgt.) --- **III Year**
Subject : Foundation Course (आधार पाठ्यक्रम)
Paper : III
Paper Name : कम्पयूटर के मूल तत्व एवुं सूचना प्रौद्योगिकी
(Baics of Computer & Information technology)
Compulsory/Optional: Compulsory
Max Marks : 25 + Internal Assessment (5) = 30

Particulars/विवरण

Unit-I	**Introduction to Computer :** Basic Organization of Computer system: Block diagram & Functions (Central Processing Unit, Input/ Output Unit, Storage Unit); Characteristics: Capabilities & Limitations. Types of Computing Devices: Desktop Laptop & Notebook smart-Phone, Tablet PC, Server, Workstation & their Characteristics. Primary Memory & Their Types: RAM, ROM, PROM, EPROM EEPROM, Cache Memory. **Peripheral Devices :** Input Devices : Keyboard Mouse, Trackball, Joystick, Digitizer or Graphic tablet, Scanners, Digital Camera, Web Camera, MICR, OCR,OMR, Bar-code Reader, Voice Recognition device Light pen & Touch Screen. Output Devices : Display Devices (CRT, TFT, LCD, LED, Multimedia Projectors): Video Standard : VGA, SVGA, XGA etc, Impact Printers (Daisy Wheel, Dot Matrix & Line Printer); Non impact printer (Inkjet, Laser, Thermal); **Storage Devices :** Magnetic Tape, Cartridge, Data Drives, Hard Disk Drives (Internal & External), Floppy Disks, CD, VCD, CD-RW, Zip Drive DVD, DVD-RW, USB Flash Drive, Blue Ray Disc & Memory cards.
	कम्प्यूटर का परिचय **कम्प्यूटर प्रणाली के मूल संगठन : –** ब्लॉक आरेख एवं कार्य (केन्द्रीय प्रोसेसिंग इकाई, निवेषी/ निर्गत इकाई, भण्डारण इकाई) अभिलक्षण ; क्षमताएॅ एवं सीमाएॅ। **कम्प्यूटर युक्तियों के प्रकार : –** डेस्कटॉप, लैपटॉप एवं नोटबुक, स्मार्ट–फोन, टेबलेट पीसी, सर्वर, वर्कस्टेषन एवं इनके अभिलक्षण। प्राथमिक स्मृति एवं उसके प्रकार :– RAM, ROM, कैष स्मृति। निवेष युक्तियां :– कुंजीपटल, मॉउस, ट्रैकबाल, जॉयस्टिक, डिजीटाईजर अथवा ग्राफिक टेबलेट, स्कैनर, डिजिटल, कैमरा, वेब कैमरा MICR, OCR,OMR, बारकोड रीडर, ध्वनि अभिज्ञान युक्तियॉ लाइट–पेन एवं टच–स्कीन निर्गत युक्तियॉ :– प्रदर्षन युक्तियॉ (CRT, TFT, LCD, LED, मल्टीमीडिया प्रोजेक्टर), विडियो मानक, VGA, SVGA, XGA आदि। आघात प्रिंटर (डिजीव्हील, डॉट–मैट्रिक एवं लाइन प्रिंटर) ; मैर आघात प्रिंटर (इंकजेट, लेजर एवं थर्मल) ; प्लॉटर्स (ड्रम एवं फ्लैट – बेड) ; स्पीकर्स। चुम्बकीय टेप कॉटिज टेप, डाटा ड्राइव हार्डडिस्क ड्राइव (आंतरिक एवं बाह्य) फ्लॉपी डिस्क CD,VCD,CD-R, CD-RW, जिप ड्राइव, DVD, DVD-RW यूएसबी फ्लैष ड्राइव ब्लू रे डिस्क, स्मुति कार्ड।
Unit-II	**Operating System (OS)**

	Dos Basic: FAT, File & Directory Structure and naming rules, Booting process, DOS system files, internal & External Dos Commands. Windows Basics (only elementary ideas): Windows 7 & 8: Desktop, Control Panel: saving, remaining, moving copying and searching files & folders, restoring from recycle Bin. Creating shortcut, Establishing Network Connections.
	परिचालन प्रणाली के काय्र एवं प्रकार, आई–पैड एवं स्मार्अ फोन के लिये प्रयुक्त परिचालन प्रणालियों से परिचय। डॉस, विडोज एवं लिनक्स परिचालन प्रणालियों का प्रारम्भिक ज्ञान। डॉस के मूल तत्व : FAT, फाइल एवं डायरेक्ट्री संरचना एवं उनके नामकरण के लियम, बूटिंग प्रक्रिया, डॉस प्रणाली की फाइलें। डॉस के आंतरिक एवं वाह्य निर्देष। विडोंज के मूल तत्व (केवल प्राथमिक जानकारी) : विडोंज 7 एवं 8 : डेस्कटॉप, कन्ट्रोल पैनल; फाइल एवं फोल्डर का नाम परिवर्तन, स्थानांतरण, प्रतिलिपिकरण ओर खौज; रीसायकिल बिन से फाइल एवं फोल्डर की पुनः प्राप्तिः शॉटकट बनाना, नेटवर्क कनेक्षन की स्थापना।
Unit-III	**MS Word** Text editing and formatting using Word file in various file formats: Previewing documents, Printing document to file / page: Protecting document Editing of selected text, Inserting Deleting and Moving text. Formatting documents: page Layout, Paragraph format, Aligning text and Paragraph, Borders and Shading, Headers and Footers.
	वर्ड 2007 एवं आगामी संस्करणों द्वारा पाठ्य सामग्री का संपादन एवं फॉमेटिंग : टेम्पलेट द्वारा दस्तावेज बनाना, वर्ड फाइल को विभिन्न फार्मेटों में सुरक्षित करना, दस्तावेज का पूर्वावलोकन, दस्तावेज को फाइल अथवा पेज पर मुद्रित करना; दस्तावेज का संरक्षण, चयनित पाठ्य सामग्री का संपादन; पाठ्य सामग्री को जोड़ना, हटाना एवं स्थानांतरित करना। दस्तावेजों की फॉर्मेटिंग ; पेज लेआडट, पैराग्राफ फार्मेट, पाठ्य सामग्री एवं पैराग्राफ का संरक्षण, बॉडर एवं शैडिंग हैडर एवं फुटर।
Unit-IV	**MS Power Point & MS Excel :** Creating presentation using slide master and template in various themes & variants. Working with slide, move, copy, delete, duplicate, slide layouts, presentation views. Format menu: Font, Paragraph, drawing & editing. Printing presentation: Print slides, notes, handouts and outlines. Saving presentation in different file formats. Workbook & worksheet: Entering data into worksheet (General, Number, Currency, Date, Time, Text, Accounting etc.); Renaming, Copying, Inserting, deleting & protecting worksheet. Working with Row & Column (Inserting, deleting, Pasting, Resizing & Hiding), Cell & Cell formatting, and Concept of range.
	माईक्रोसॉफ्ट पॉवरपॉइंट और एक्सेल स्लाइड मास्टर और टेम्पलेट का उपयोग करते हुएविभिन्न थीम्स ओर वैरिएटस् में प्रस्तुति बनाना। स्लाइड के साथ कर्या करनाः नई–स्लाइड बनाना, मूव करना, प्रतिलिपि बनाना, डिलीट करना डुप्लीकेट बनाना, स्लाइड ले–आउट, प्रेजेटेषन व्यूज। फॉर्मेट मेनू: फॉन्ट , पैराग्राफ, ड्राइंग ओर संपादन। विभिन्न फाइल स्वरूपों में प्रस्तुति का संरक्षण। स्लाइड शो को प्रस्तुत करनाः सेटअप स्लाइड शो एवं रीहर्स – टाइमिंग। वर्कषीट में कार्यः वर्कषीट में डाटा (सामान्य,नंबर, करन्सी, डेट, टाइम, टेक्स्ट, एकाउंटिंग इत्यादि) प्रविष्ट करना; वर्कषीट का नाम बदलना, प्रतिलिपि बनाना, प्रविष्ट करना, हटाना तथा रक्षित करना। पंक्ति और स्तम्भ के साथ कार्य (डालना, हटाना, पेस्ट करना, आकार बदलना ओर छुपना) सेल और सेल फॉर्मेटिंग, रेंज की अवधारणा।
Unit-V	Internet: World Wide Web Dial up connectivity, leased line, VSAT, Broad Band, WI-FI, URL, Domain name, Web Dial up Browser (Internet Explorer, Firebox, Google Chrome, opera, UC Browser etc.) Search Engine (Google, Bing, Ask etc); Website: Static & Dynamic; Difference between website & Portal. E-mail: Account opening. Sending & Receiving Mails, Managing Contacts & Folders.

	E-mail, Internet & Social Networking Ethics. Types of viruses & antivirus. Computer security Issues & its protection through firewall & antivirus. Making secured online transactions.
	इंटरनेट – वर्ल्ड–वाइड–वेब, डायलअप कनेक्टिविटी, लीजड लाइन, व्ही, सेट, ब्रॉडबैड़, वायफाई, यूआरएल, डोमेन, नेम वेब–ब्राउजर (इंटरनेट एक्स्प्लोरर, फायरफॉक्स, गूगल क्रोम, ऑपेरा, यूसी ब्राउजर इत्यादि); सर्च इंजन (गूगल, बिंग Ask इत्यादि); वेबसाइड़ः स्थैतिक व गतिकीय; पोर्टल और वेबसाइड़ में अन्तर। **इमेलः** खाता खेलना, मेल को भेजना एवं प्राप्त करना, कॉन्टेक्ट्स एवं फोल्डर्स को मैनेज करना। साइबर षिष्टाचार , सुरक्षा ओर गोपनीयता। इमेल, इंटरनेट एवं सोषल नेटवकिंग षिष्टाचार। वायरस ओर एंटीवायरस के प्रकार। कम्प्यूटर सुरक्षा के मुद्दे ओर फायरवाल व एंटीवायरस के माध्यम से सुरक्षा। सुरक्षित तरीके से ऑनलाइन लेन–देन का निष्पादन करना।

Text Books :

1. PC Software for Windows by R.K. Taxali.
2. Fundamental of Computers by P.K. Sinha.
3. Computer Today by Suresh K. Basandra
4. Computer fundamental s and Architechture by B.Ram.
5. Internet Security by Kenneth Einar Himma, 2007.
6. Internet Security Secrets by John R. Vacca, 2007.

नोटः–नियमित विद्यार्थियो के लिए 25 अंको की सैद्धातिक परीक्षा तथा 05 अंको का आंतरिक मूल्यांकन होगा

Marks distribution for paper setters:		**for regular students**
Section A :	Objective Type	0.5 X 5 = 2.5
Section B :	Short Answer Type	1.5 X 5 = 7.5
Section C :	Long Answer Type	3 X 5 = 15
	Total	**25**

BSCIT-309
Digital Electronics and microprocessor

UNIT-I Marks -10

Introduction to member systems, logic gates or , AND, NOT, X-OR, NAND, NOR gates, Truth tables, positive and negative logic, logic families and their characteristics RTL, DTL, TTL and CMOS, Universal building blocks NAND And NOR gates, Laws of Boolean algebra De Morgan's Theorem Boolean identities, simplification of Boolean identities, simplification of Boolean expressions, karnaugh maps, sum of product maps, sum of product (Sop) product of sums (PoS)

UNIT-II Marks -10

Combinational and Sequential Circuits: multiplexer and De multiplexer, Decoder, Half adder, Full adder and Parallel adder circuits, Flip flaps, RS,D Jk and Jk Master, slave (working & Truth tables), Semiconductor memories, organization and working, synchronous and Synchronous binary counters, up/down counters, decade counters (7490), working truth tables and timing diagrams.

UNIT-III Marks -10

Introduction t o microcomputer and microprocessor, Intel 8085 microprocessor, central processing unit CPU Arithmetic logical Unit ALU, Timing and control unit register organization, address, data and control bases pin configuration of 8085 and its description, Timing diagrams, instruction cycle, machine cycle fetch and execute cycles, Instructions set of 8085 instruction and data formals classification of instructions, addressing modes.

UNIT-IV Marks -10

Assembly language programming examples of 8 & 16 bit addition, Subtraction, multiplication and a vision finding the largest and smallest in a data array Programming examples using stacks and subroutines.

UNIT-V Marks -10

Interfacing, peripherals and applications: Programmable peripheral interface c8255, D/A Converters and their interfacing to the microprocessor, stepper motor control, seven segment LED.

Reference Books

1 MICROPRO CESS OR ARCHITECTURE, PROGRAMMING & APPLICATIONS WITH 8085. RAMESH GAONKAR, PENRAM PUBLIS HING LTD.
2 MICROPRO CESS ORS AND INTERFA CING BY D.V. HALL TMH, 2ND EDITION.
3 IBM PC ASSEMBLY LANGUAGE PROGRA MMI NG BY PETER ABLE, PHI

4 FUNDAMENTALS OF MICROPROCESSORS AND MICROCOMPUTERS BY B. RAM, DHANPAT RAI PUBLICA TIONS. 5TH EDN.

BSCIT-311
Operating Systems

UNIT-I **Marks -10**

Introduction to operating systems, goal of os, batch processing, multiprocessing, time sharing, distributed real time systems.

UNIT-II **Marks -10**

System calls, system programs, structure of os, layer design- of Dos, Unix, virtual machine of, kernel based os, micro-kernel based os, architecture of window zoo process concept, interacting process, threads process in Unix, process and threads in windows zoo.

UNIT-III **Marks -10**

Process scheduling, fundamental of scheduling, scheduling- criteria, long medium short term scheduling, scheduling algorithm up to multi- processor scheduling, algorithm evaluation.

UNIT-IV **Marks -10**

Structure of concurrent system, critical section, critical region, inter process communication, monitor and semaphores, implementation and user.

UNIT-V **Marks -10**

Unix History, Programmer interface, file manipulation process control, kernel, signals, file system, block in odes, Stream editor, Character transliteration “ed” Vi editor and their commands.

Shell script, variables, file Name expansion, shell commands looping and making decisions, array, sub program C- interface with Unix, simple shell programs,

Reference Books

1. OPERATI NG SYSTEM CONCEPTS By SILBERSCHATZ & GALVIN, ADDISON WESLEY PUBLICA TIO N 6th Edition.
2. OPERATI NG SYSTEM CONCEPTS & DESIGN By MILAN MILEN KOVIC, TMH PUBLICATION

BSCIT-312
E-Commerce

UNIT-I Marks -10

Electronic Commerce Framework, Electronic and media- convergence, Traditional VS Electronic
Business applications The Anatomy of E- commerce Applications

UNIT-II Marks -10

Overview of mobile computing Technology, mobile data internet and mobile computing Applications.

UNIT-III Marks -10

Networks security and firewalls, client server Network Security Threads, Fire walls and Network
Security, Data Message security , Encrypted Documents and electronic- Mail.

UNIT-IV Marks -10

Architectural Framework for electronic commerce, worldwide web as Architecture, consumer oriented E-commerce, electronic data interchange (EDI), EDI Applications – in Business, EDI Security document management and digital libraries,

UNIT-V Marks -10

Consumer- oriented applications, mercantile process models, mercantile models from the consumer's perspective mercantile models from the merchant's perspective.

TEXT & REFERENCE BOOKS:

- *LEVEL MODULE - M 1.2 - INTERNET & WEB PAGE DESIGNING BY V.K.JAIN - BPB PUBLICATIONS.*
- *E-COMMERCE AN INDIAN PERSPECTIVE (SECOND EDITION) - BY P. T. JOSEPH, S.J. PRESENTICE-HALL OF INDIA*
- *INTERNET FOR EVERYONE - ALEXIS LEON AND MATHEWS LEON, VIKAS PUBLISHING HOUSE PVT. LTD., NEW DELHI*
- *INTERNET FOR DUMMIES - PUSTAK MAHAL, NEW DELHI*
- *A BEGINNERS GUIDE TO HTML AVAILABLE AT: HTTP://WWW.NCSA.UIUC.EDU/GENERAL/INTERNET/WWWL HTMLPRIMERALL.HTML*
- *INTRODUCTION TO JAVASCRIPT AVAILABLE AT - WWW. MCU. AC.*

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BSCIT-313
Visual Basic programming

UNIT-I **Marks -10**

Introduction Need of Visual languages, Integrated development environment (IDE) , Advantages of visual Basic, characteristics and features of visual Basic- IDE, Projects, User interface, objects oriented, visual development and event driven programming, for ms/Graphic controls, data processing, sharing with windows and internet applications.

UNIT-II **Marks -10**

Visual basic programming and tools: An Introduction of visual Basic programming, simple program construction, stamens, Input/ outputs, comments, Editor, Subroutines, control flew- statements, objects and variants, procedure, & functions,

UNIT-III **Marks -10**

Designing user interface- elements of user interface, under-standing forms, menus. and toolbars, designing menus and toolbars, Building Dynamic forms, Drag & Drop Operations, Working with menus, customizing the toolbars.

UNIT-IV **Marks -10**

Controls- Textbox, combo box, Scrollbar, and slider controls operations, generating timed events, drawing with visual basic using graphics, controls, co-ordinate systems and graphic methods, mani Relating colors and pixels with visual Basic.

UNIT-V **Marks -10**

Database programming with Visual Basic, Data access methods, creating, reading and writing text files. Data Controls. Creating Queries.

Reference Books

1. VB.NET PROGRAMMING BLACK BOOK BY STEVEN HOLZNER –DREAMTECH PUBLICATIONS
2. MASTERING VB.NET BY EVANGELOS PE TROUTSOS - BPB PUBLICATIONS
3. INTRODU CTION TO .NET FRAME WORK- WORX PUBLICATION
MSDN.MICROSOFT.COM/NET/
WWW.GOTDOTNET.COM

BSCIT-308
Multimedia Basic

UNIT-I Marks -10

Introduction to multimedia technology- computer, communication and entertainment: Frame work for multimedia systems: Advantages of MM, System Components and the user interface, mm platform, Hardware, Software, commercial tools and standard

UNIT-II Marks -10

Images and applications image capture com press ion , standards, Audio compression And
Decompression, Audio Synthesis , M,D, Speech recognition & Synthesis, Video Capturing, compression
& De compression, digital video and image compression JPEG Image compression standards : MPEG
motion video compression ; DVI Technology; time – based media representation and delivery

UNIT-III Marks -10

LAN, WAN, Storage of MM, M/M Presentation and authoring Digital Representation of sound and transmission, brief survey of speech recognition and generation. Developing Applications, Methodology, design, multimedia, object sharing multimedia and the law.

UNIT-IV Marks -10

Application of M/M Intelligent M/M System, Desktop- Virtual reality (VR) Operating System, Virtual Environment displays and orientation tracking ; Visually coupled system requirements ; intelligent VR Software Systems, Training and education, kiosks, Multimedia in office and home.

UNIT-V Marks -10

Build HTML documents from scratch. View HTML document using a variety of web browsers, organize information using Lists, use HTML frames and tables for page-Layout, Connect to a variety of resources by using hypertext links, create style sheets to format the look and feel of the pages, understand key image theory concepts, create new images from Scans or from scratch, optimize image sizes, create animated gibes and transparent images, be able- to create graphical elements, for use on web pages, buttons, banners, navigation bars, background tiles, embed images and other multimedia.

Reference Books

• MULTIMEDIA: MAKING IT WORK (4TH EDITION) BY THYVAUGHAN, TATA MCGRAW HILLS.

- MULTIMEDIA IN ACTION JAMES E SHUMAN VIKAS PUBLISHING HOUSE.
- MULTIMEDIA BASICS VOLUME / TECHNOLOGY, ANDREAS HOI
- ZINGER, FIREWALL MEDIA (LAXMI PUBLICATIONS PVT. LID) NEW DELHI.

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BSCIT-309
Relational Database Management Systems.

UNIT-I **Marks -10**

Distributed database design, architecture of distributed processing system, of data communication concept, data placement, placement of DDBMS and other components, concurrency , need of recovery, recovery techniques, Serializability. Blocking; dead- locks, introduction to query Optimization.

UNIT-II **Marks -10**

Query Optimization and processing, algorithm for external sorting. Select and join, object and set operations. Heuristics in query optimization temporal database concept, multimedia database, data mining, association rule, classification applications , data-warehousing, need, architecture, characteristics, data layer.

UNIT-III **Marks -10**

Introduction to SQL, Security and integrity of databases, security specifications in SQL.

UNIT-IV **Marks -10**

Oracle RDBMS: Overview of three tier client server- technology, modules of oracle & SQL -Plus Data types, constraints, operators, DDL DML, DCL- Create, Modify, Insert , Delete & update searching, matching and oracle functions) Data Types , Matching and oracle functions) Data types, PL/SQL Functions Error handling in PL/ SQL, Package functions package procedures, oracle transactions, SQL stored procedures.

UNIT-V **Marks -10**

Data base triggers: Introduction, Use & type of database triggers, triggers VS. Declarative- integrity constraints, BE FORE VS. AFTER Trigger Combinations, Creating a Trigger, Dropping a Trigger.

Reference Books

AN INTRODUCTION TO DATABASE SYSTEM (3RD ED.) BY C.J. DATE DATABASE SYSTEM CONCEPTS BY HENRY F. KORTH
DATABASE MANAGEMENT SYSTEMS BY LEON & LEON, VIKAS PUBLICATIONS. AN INTRODUCTION T O DATABASE SYSTEM BY BIPIN C. DESAI
FUNDAMENTALS OF DATABASE SYSTEM (2ND ED.) BY ELEMESRI AND S. NAVATHE ORACLE A BEGINNERS GUIDE BY MICHAEL ABBEY &MICHAEL J. COREY TMH PUBLICATIONS