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**CSAOEUG(I) - WORKING WITH OS (DOS, WINDOWS & LINUX)**  
**CREDIT 3 : LTP (2:0:1)**

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**Course Objectives**

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This course will prepare students to understand and give working knowledge of three most popular O.S. DOS, Windows and Linux. Students are expected to work on these environments and do the work seamlessly

**UNIT - I**

Fundamentals of operating system, definition and need. Main Services of operating system, various types of operating system, (definition and characteristics), multitasking, multiprocessing, multiprogramming, real time, time sharing, parallel, network operating system, booting process, file system.

DISK OPERATING SYSTEMS (DOS) - Introduction, History & versions of DOS DOS basics- Physical structure of disk, drive name, FAT, file & directory structure and naming rules, booting process, DOS system files.

DOS commands: Internal - DIR, MD, CD, RD, COPY, DEL, REN, VOL, DATE, TIME, CLS, PATH, TYPE etc.

External Commands - CHKDSK, XCOPY, PRINT, DISKCOPY, DISKCOMP, DOSKEY, TREE, MOVE, LABEL, APPEND, FORMAT, SORT, FDISK, BACKUP, EDIT, MODE, ATTRIB, HELP, SYS etc

**UNIT - II**

WINDOWS - Introduction to Windows, its various versions and features. Hardware requirements for various versions of Windows. Working with Windows (**Windows 10 or latest version**) Windows concepts, Windows Structure, Desktop, Taskbar, Start Menu, Working with files and folders, create, copy, delete, renaming and moving files and folders, working with recycle bin-restoring deleted files, emptying the recycle bin, searching files and folders .My computer, formatting floppy disks, Using CDROM Disk and Dives.

Using Windows Accessories programs- Calculator, Notepad, Paint, WordPad, Character map, Paint, Command line.

Using Media Player, Sound Recorder, Volume Control. Taking Printout from programs, Printer Properties, Add fonts to Windows (Specially adding Hindi Fonts and using them). Setting up Regional and Language settings in Windows.

Advanced features of Windows -Managing Hardware & Software – Add or remove Hardware devices to/from computer, Add/remove programs, Using Scanner; Web camera, sharing of printers.

**UNIT - III**

System Tools - Backup, Clipboard Viewer, Disk Defragmenter, Drive Space, Scandisk, System Information windows update.

Communication – Setting up Dial up Networking with Windows, Internet connection with Windows, Direct Cable Connection, Setting up TCP/IP properties, Hyper Terminal, Phone Dial, Browsing the Web with internet explorer, communication through Outlook Express, Multiple Users Features of Windows. Creating and deleting user, changing user password etc. Accessibility Features of Windows.-Sharing Information between Programs, sharing folders and drives browsing the entire network, mapping windows shared drives, Using shared printers - Understanding OLE - Embed/Link Using Cut and Paste and Embed/Link Using Insert Object - Manage Embedded/Linked Object.

**UNIT - IV**

**LINUX** - Linux introduction, Basic Features, Advantages, Installing requirement, Basic Architecture of Unix/Linux system, Kernel, Shell, Linux File system-Boot block, super block, Inode table, data blocks, Linux standard directories. Partitioning the Hard drive for Linux, Installing the Linux system, System, startup and shut-down process, init and run levels.

Essential linux commands Understanding shells, Commands for files and directories cd, ls, cp, md, rm, mkdir, rmdir, pwd, file, more, less, creating and viewing files using cat, file comparisons – cmp & comm, View files, disk related commands, checking disk free spaces.

**UNIT - V**

Process fundamentals, connecting processes with pipes, tee, Redirecting input output, manual help, Background processing, managing multiple processes, changing process priority with nice, scheduling of processes at command, cron, batch commands, kill, ps, who, sleep, Printing commands, find, sort, touch, file, file related commands-ws, sat, cut, dd, etc. Mathematical commands- bc, expr, factor, units, Creating and editing files with vi, joe & vim editor

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**Course Outcome**

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After completing the course student will operate easily all three most popular O.S. DOS, Windows and Linux.

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*Text & Reference Books*

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Course	Subject	Marks			Credit
		T	P	I	
B.Sc.(MM)5	Digital Art and Digital Photography	-	40	10	3 (OE3)

**Objectives:**

- Understanding digital camera its Components and Handling
- Understanding basic concepts and practice of Photography including understanding and use of the camera, lenses, and other basic photographic equipment.

**Unit 1: Basics of DSLR/SLR Camera**

Evolution of Camera, History of Photography, Photography Camera basics, Comparison of film Camera and digital camera, Types of DSLR/SLR camera, Parts of DSLR /SLR camera: Lens, Aperture, Shutter, Camera Sensor, ISO Setting .

**Unit 2: Colour Aesthetics and Composition**

Impact of colour in Photography, Association of colour moods hue, saturation, tone, shade, brightness, colour contrast, Complimentary colour  
Rule of Third, Balancing Elements, Leading lines, Texture, Viewpoint, Depth of field, Patterns, Colour, Symmetry, Background, Compositional Rules,

**Unit 3: Lighting**

Colour Temperature, White balance, Basic lighting technique, Three point lighting and its effects, lighting angles and directions, Lighting for set, atmosphere, Types of Photography lights

**Unit 4: Photography Lenses and Equipments**

Controlling The Image, Using different Focal Length Lenses, Filters and, its types, Close up equipments, Camera mounting device- Tripods, monopod, Storage media, Flash

**Unit 5: Types of Photography**

Sports & Action Photography, Product Photography, Wildlife & Nature Photography, Portrait Photography, Candid Photography, Archaeological Photography, Architecture Photography, Aerial Photography

**Assignments:**

1. Digital Portfolio With Print(Nature photography, Product Photography, Candid Photography, , Architecture Photography,)
2. Exercises of various types of Photography
3. Any other assignment given by the concerned faculty

**Text Books and Reference:**

1. Handbook of Photography- Pradeep Tiwari- MCNUJC, Bhopal
2. Langford's Basic Photography: The Guide for Serious Photographers, Edition 10 ISBN9781317964728
3. The Digital Photography by Scott Kilby
4. Digital Photography Quicksteps-by Doug Sahlin

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## DOCUMENTARY PRODUCTION

	L	T	S	W	D	V	P	T
<b>Unit: 1 Introduction to Non-fiction</b>								
1.1 Introduction	3	-	-	-	-	-	-	3
1.2 Understanding the Non-fiction genre	3	-	-	-	-	-	1	4
1.3 History of Actualities	3	-	-	-	-	-	-	3
1.4 Types of Documentaries	3	-	-	-	-	-	2	5
1.5 Theoretical approach to documentaries, early documentaries	3	-	-	-	-	-	1	4

	L	T	S	W	D	V	P	T
<b>Unit: 2 Production Process of Documentary</b>								
2.1 Pre-production of documentary	3	-	-	-	-	-	-	3
2.2 Approaches to documentary production	3	-	-	-	-	-	1	4
2.3 Production, Developing Ideas	3	-	-	-	-	-	-	3
2.4 Research on the subject, Reece	3	-	-	-	-	-	2	5
2.5 Zeroing on the subject, Development of Script, Scheduling, Budgeting	3	-	-	-	-	-	1	4

	L	T	S	W	D	V	P	T
<b>Unit: 3 Essential Elements of Script</b>								
3.1 understanding the Visual elements.	3	-	-	-	-	-	-	3
3.2 Modes of recording the Sound.	3	-	-	-	-	-	1	4
3.3 Understanding the sound elements.	3	-	-	-	-	-	-	3
3.4 Different approaches to the Story and its elements,	3	-	-	-	-	-	2	5
3.5 Understanding the Point of view.	3	-	-	-	-	-	1	4

  
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Unit: 4 Production of Documentary	L	T	S	W	D	V	P	T
4.1 Field production of documentary	3	-	-	-	-	-	-	3
4.2 Indoor and outdoor shooting, precautions before documentary shooting, conducting interviewee	3	-	-	-	-	-	1	4
4.3 Understanding the role of interviewee	3	-	-	-	-	-	-	3
4.4 Different approaches to interview, when and how to break the interview, Logging on location, Crew and responsibilities.	3	-	-	-	-	-	2	5
4.5 Ethics and Laws of Documentary film	3	-	-	-	-	-	1	4

Unit: 5 Production	L	T	S	W	D	V	P	T
5.1 Types of editing software's, Logging to system	3	-	-	-	-	-	-	3
5.2 Shots identification, rough cut, Final cut	3	-	-	-	-	-	1	4
5.3 Use of narration, importance of music	3	-	-	-	-	-	-	3
5.4 Use of effects, titling, advantages of subtitling acknowledgments, understanding copyright. Practical – Shooting and Editing	3	-	-	-	-	-	2	5
5.5 Documentary Marketing Managements	3	-	-	-	-	-	1	4

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**OE Paper 05 : Photo Journalism****edits)****Unit-1 Introduction to Photography**

1. Principles of Photography
2. Understanding the structure and working of a professional camera- camera view finder, lenses, aperture, iris diaphragm, shutter, light meter .
3. Major Types of Camera, types of lenses

**Unit-2 Technical Aspects**

1. AOV and Focal lengths of various lenses
2. Depth of Field & Depth of Focus
3. Relationship between shutter speed, Aperture & Film for various genres of photography

**Unit-3 Photo Composition**

1. Principles of photo composition
2. Straight and converging lines diagonal & shaped compositions
3. Repetitions and rhythms secondary subjects, moving towards the centre

**Unit-4 Photo Accessories**

1. Photography Accessories, Tripod : Qualities & Use, Colour correction fitters
2. UV, NID filter, polarizing filters etc Special effect fitters
3. Flash gun : Types & Use

**Unit-5 Photo Editing**

1. Cropping & Editing, techniques of Photo Editing
2. Essentials of a Press photograph, qualities of a good Photo Journalist
3. Legal & Ethical aspects of Photo Journalism

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**BBA - E-COMMERCE**

**OE-7: Business Environment**

<b>Unit -1</b>	<b>An Overview of Business Environme</b>
1.1	Types of Environment-internal, external, micro and macro environment.
1.2	Competitive structure of industries, environmental analysis and strategic management.
1.3	Managing diversity.
1.4	Scope of business, characteristics of business.
1.5	Objectives and the uses of study. Process and limitations of environmental analysis.

<b>Unit -2</b>	<b>Economic Environment</b>
2.1	Nature of Economic Environment. Economic factors-growth strategy, basic economic system, economic planning,
2.2	Economic policies- new industrial policy,
2.3	3FEMA, Monetary and fiscal policies.
2.4	Consumer Protection Act and Competition Law. Liberalization, Privatization and Globalization of Indian Economy,
2.5	Current Trends and Issues.

<b>Unit -3</b>	<b>Socio-Cultural Environment</b>
3.1	Nature and impact of culture on business
3.2	Culture and globalization
3.3	Social responsibilities of business
3.4	Social audit
3.5	Demographic environment population size, migration and ethnic aspects, birth rate, death rate and age structure

<b>Unit -4</b>	<b>Political Environment</b>
4.1	Functions of state, economic roles of government,
4.2	Government and legal environment.
4.3	The constitutional environment,
4.4	Rationale and extent of state intervention.
4.5	Case Study

<b>Unit -5</b>	<b>Natural and Technological Environment</b>
5.1	Innovation, technological leadership and followership,
5.2	Sources of technological dynamics,
5.3	Impact of technology on globalization, transfer of technology, time lags in technology introduction,
5.4	Status of technology in India;
5.5	Management of technology; Features and Impact of technology.

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## Digital Electronic Circuits

Marking Scheme			Credits
T	P	I	3
40	-	10	(OE5)

Course  
BTech(PP)6

**Objective: To understand the use of electronic circuits in Printing and packaging Machines**

### Unit I: Fundamentals of Digital Techniques

Logic Gates and Boolean algebra: Digital signals, Review of logic gates, Binary codes: BCD, Excess-3, Gray, EBCDIC, ASCH, Error detection and correction codes. Combinational Logic Circuits: Simplification of Boolean expression. and realization using logic gates, sum of products and product of sums, Karnaugh map & variable, minimization of Boolean expressions using Karnaugh map, don't care conditions, variable entered mapping, and minimization using variable entered maps.

### Unit II: Numbering Systems & Binary Arithmetic

Introduction. Symbolic number systems, Positional number system, Integer Binary numbers- Binary digital computers, Binary number system, Conversion between decimal and binary numbers, Hexadecimal numbers, Conversion between Hexadecimal Binary & Decimal numbers. Fractional binary numbers- Converting binary fractions to decimal, Converting Hexadecimal fractions to decimal, Converting decimal fractions to Binary and Hexadecimal. Number System Notation. Binary Addition and Subtraction- Signed binary numbers, Complementary numbers, Two's complement mathematics. Binary multiplication & division. Binary codes- Character codes, Numeric codes, other binary codes, Error correction & detection codes.

### Unit III: Arithmetic Circuits

EXOR and EXNOR gates, half adder, full adder, full subtractor, adder-subtractor, look ahead and carry; Data Processing Circuits: Multiplexers, de-multiplexers, decoders, BCD to decimal decoder, seven segment decoder, encoders, decimal to BCD encoder, parity generators and checkers.

### Unit IV: Flip-Flops

AND gate latch, NOR gate latch, Review of flip-flops and their conversions. Sequential Logic Circuits: Comparison between combinational and sequential logic circuits, shift registers, SISO,SIPO, PISO



and PIPO shift registers, D/A & A/D Converters

### Unit V: D/A and A/D Converters

Variable-Resistor network, binary ladder. D/A counter. D/A accuracy and resolution, A/D counters- simultaneous conversion, counter method, continuous conversion, successive approximation method, single slope and dual slope A/D counters. Programmable logic devices: ROM, PLA, PAL, FPGA AND CPLDs. Application of digital electronic in printing & packaging.

### Assignments/Practical Work:

1. To study and verify the truth table of Logic Gates
2. To realize half/full adder and half/full subtractor using X-OR, basic gates and NAND gates.
3. To study and compare between combinational and sequential logic circuits
4. To study and compare the types of programmable logic devices used in printing and packaging industry.

### Text & Reference books:

1. Digital Principles and Applications – Donald P Leach, Albert Paul Melvin- Publisher: Glencoe/Mcgraw-Hill; Sub edition (April 1986) ISBN-10: 0070398836
2. Digital Systems-Principles and Applications- Ronald J.Tocci Publisher: Pearson; 11 edition (July 17, 2010) ISBN-10: 0135103827
3. Digital Fundamentals- Floyd Publisher: Pearson; 11 edition (July 24, 2014) ISBN-10: 0132737965
4. An Engineering approach to digital design- Fletcher Publisher: Prentice Hall; 1st edition (February 19, 1997) ISBN-10: 0132776995

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