

MANGALORE UNIVERSITY
SECOND SEMESTER B.Com
Computer Applications (Vocational) Degree Programme
2019-2020 Onwards

GROUP-I COURSE-3 Credits: 2 Theory/Week:4 Hrs	BCMCAC181 Operating System	48 Hours I.A: 20 Exam: 80
UNIT I		Book & Page No
Introduction: Operating system, Mainframe systems (Batch systems, Multiprogrammed systems, Time sharing systems)		(Text book 3) 3-11
Operating System Structures: System Components, Operating System Services		17-18 55-63
Process Management: Process concept, Process Scheduling, Operations on process, Cooperative Process		95-103 107-108
Threads: Overview, Multithreading Models.		129-132
UNIT II		
CPU Scheduling: Basic concepts, Scheduling criteria, Scheduling algorithms.		(Text book 3) 151-169
Process Synchronization: Background, the critical section Problems, Synchronization, Semaphore, Classic problems synchronization		189-192 201-210 225-244(Textbook 1)
Deadlocks: System model, deadlock characterization, Methods for handling deadlocks, Deadlock prevention, Deadlock avoidance, Deadlock detection		283-305(Textbook 1)
UNIT III		
Memory Management: Background, Swapping, contiguous Memory allocations, Paging, segmentation		(Text book 1) 315-345 (8.4.4,8.5 excluded) 357-365
Virtual Memory: Background, demand paging, process creation, page replacement, allocation of frames and thrashing.		(9.2.2 excluded) 369-377 421-440
File Management: File concept, Access methods, Directory structure, Protection.		(10.3.1 excluded) 451-455
UNIT IV		
Linux: An introduction, reason for its popularity, Linux file system, login and logout. Linux commands: Command format, Directory oriented command, wild card characters, File oriented commands, File Access Permissions, Process oriented commands, Background processing, Communication oriented commands, General purpose commands, Pipe and Filters related commands, vi editor, Shell programming, System administration.		(Text book 2) 2-94 119-128
Text Books: 1. Silberschartz, Galvin and Gagne, Operating Systems Concepts , 8th Edition, John Wiley & Sons, Pvt. Ltd. 2008 2. B Mohamed Ibrahim, Linux: A Practical Approach , Laxmi Publications; First edition, 2016 3. Silberschartz, Galvin and Gagne, Operating Systems Concepts , 6 th Edition, John Wiley & sons, Pvt. Ltd. 2008		

GROUP-I COURSE-3 Credits: 2 Theory/Week:4 Hrs	BCMCA182 Desktop Publishing	48 Hours I.A.: 20 Exam: 80
UNIT I [Text Book-1]		Page No
Introducing InDesign CS4: Getting started with InDesign CS4, Exploring the InDesign CS4 workspace, working with custom workspace, creating a new document, saving a document, closing the document and quitting the application.		102-112
Working with Documents: Opening an existing document, Introducing master page, working with text, working with the type on a path tool, performing basic formatting tasks, performing advance formatting tasks, working with paragraph styles.		114-132
Working with drawing tools and objects: Using shape tools, using pencil tool, using pen tool, transforming objects.		134-150
Publishing the document : Creating a table of contents, creating and applying styles in TOC, importing styles, printing a document, exploring the types of print options, saving the document as a PDF file		154-162
UNIT II [Text Book-1]		
Introduction to Corel DRAW graphics suit x4: New and enhanced features in Coreldraw graphics suit X4. Getting started with Coreldraw X4, Exploring the workspace of Coreldraw X4, drawing basic geometric figures, saving the drawing, opening an existing document, previewing with the drawing, working with page layout, closing the drawing and quitting Coreldraw.		257-272
Working with lines: About lines in Coreldraw: Drawing a curve, drawing calligraphic lines, About outline tool: defining lines and outlines setting, creating a calligraphic outline, adding an arrowhead.		274-282
Working with objects: Selecting and deselecting objects, deleting objects, sizing objects, rotating objects, combining objects, grouping in Coreldraw: grouping object, ungrouping objects. Selecting color for an object, filling objects.		284-293
Working with text: Types of text: preparing a layout for using the text, creating artistic text, creating paragraph text, converting text from one type to another, changing the appearances of text, changing a font, changing the font size and color of the text, changing the alignment, applying effects to the text, wrapping paragraph text around objects, fitting text to an object using curve command.		295-302
Working with bitmaps: About vector and bitmap image, change vector images into bitmap images, importing a bitmap into a drawing, cropping, resampling and resizing a bitmap.		304-326
UNIT III [Text Book-1]		328-339
Getting Familiar with CS4: Introducing and launching Photoshop CS4, Exploring the new interface.		166-169
Move tool, eyedropper tool, zoom tool, type tool.		169-173
The layer palette, the channels palette, the color palette, the history palette, the brush palette, clone source palette, the actions palette.		176-178
Opening an existing file or Photoshop document, creating a new document, saving files, reverting files, closing files.		179-183
Working with images and selections: Changing the resolution of an image, changing the size of a document.		191-193
Editing images: rotating an image, cropping an image, trim command.		194-197
Working with selections tool: Marquee tool, working with selections.		205-210
Lasso tools(3 types of tools only meaning)		212-213

Magic wand tool(only meaning exclude different options) Drawing painting and retouching tools: Setting the current foreground and background colors, Exploring color picker dialog box (only meaning exclude different components), using eyedropper tool. Using retouching tool, healing brush tool, patch tool, clone stamp tool, eraser tool, background eraser tool, magic eraser tool. Master layers in Photoshop: Working with layers, creating a new layer, hiding and showing layers, deleting layers, Applying blend modes.	216 223-225 227-232 236-245
UNIT IV [Text Book-2]	
Getting Started with Flash Professional CS6: Starting Flash Professional CS6, Creating new flash File, Exploring the Flash Professional Cs6 workshop (The application Bar, Stage, panels, using tool panels, properties inspector). Transform Panel, swatches panel, color panel, scene panel. Understanding Timeline and layers, Motion Editor, Creating or choosing a new workspace, Saving Flash Files. Working with Graphics: Bitmap and vector graphics, Merge Drawing mode, Object drawing mode, Primitive drawing mode, Creating graphics in flash professional CS6, Selecting Objects(Using selection tool, Subselection tool, lasso tool, selection using lasso tool, Lasso tool with polygon modifier, line tool), Drawing rectangles and ovals, Rectangles and shapes, ovals and circles, polygon and stars, pencil tool, pen tool. Draw straight line with the pen tool, creating a curved path using pen tool, Adding anchor points on paths, deleting corner and curve points, painting with the brush tool, spray brush tool, Drawing patterns with the deco tool. Paint bucket tool, In bottle tool, eyedropper tool, using eraser tool, Transforming objects, Distorting objects, rotating and skewing objects. Using gradient and bitmap fills(All) Working with symbols and instances: Using symbols, creating symbols, duplicate symbols, create instances, editing instance properties, break apart a symbol instance, editing symbols Timeline with timeline: Working with timeline, about layer, create a layer, rename layer, outline layer, viewing layer, guide layer. Creating animation, types of animation, Classification of animation in the timeline. Understanding motion tweens, Easing tween animation, orienting objects to the path, swapping targets, motion presets. Creating interactive navigation: Creating button symbols, understanding action Working with text: Adding simple text, formatting text, paragraph formatting, modifying the text box, using lab ruler, flowing text across text multiple containers, delete text boxes, finding the next previous link	3-14 16 18-23 24-40 42-50 56-64 69-75 76-88 105-114 115-118 119-132 163-170 178-195
Text Books: 1. Comdex 9-in-1 DTP Course Kit by Vikas Gupta, Dreamtech Press Publications 2. Adobe Flash Professional CS6 Training Guide by Prof. Satish Jain, BPB Publications, First Edition	

Group I	BCMCAP183 OS and DTP Lab	36 Hrs
Practical II		IA: 10
Practical/Week: 3 Hrs Credit: 1		Exam: 40

Part - A: Adobe InDesign or CorelDraw	
1	Adobe InDesign a) Design College day invitation by using InDesign tools. b) Design a Newspaper cutting.
2	Adobe Coreldraw X4 a) Create any banner in Corel Draw using different tools. b) Create Business card (visiting card) in CorelDraw using different tools.
Part - B: Linux	
1	Write a shell script to accept 'n' integers and count +ves, -ves and zeros separately. Also find the sum of +ves, and -ves.
2	Write a shell script to accept student name and marks in 3 subjects. Find the total marks and grade (depending on the total marks).
3	Write a shell script program to copy the content of one file1 to file2 and display the content of both the files.
4	Write a menu driven shell script for the following. a) To list files and directories. b) Renaming a file (check for the existence of the source file). c) To display the current working directory d) To list the users logged in e) Exit
5	Write a shell script to accept many filenames through command line. Do the following for each file name: a) If it is an ordinary file display its content. b) If it is a directory, display the number of files in it. c) If the file/directory does not exist, display a Message.
Part - C: Adobe Photoshop or Adobe Flash	
Adobe Photoshop	
1	Create image in Photoshop painting tools or use existing images copy the portions of one image to another image. Use Toolbox options. Marquee Tool (Rectangular Marquee, elliptical Marquee), Move, Lasso Tool, Magic wand and Crop Tools.
2	Create images of artistic architectures using Photoshop painting tools (brush, pencil, color, paint bucket tools), Drawing tools and retouching tools.
3	Create image or use existing images to create a new layer, delete layer, show and hide layers and apply different blend modes.
Adobe Flash	
4	Create a moving butterfly using simple motion tween animation in Adobe Flash.
5	Using Adobe Flash, design a building in background using different tools and simple motion tween animation for moving the bus.

Scheme of Practical Examination

Sl. No.	Details	Marks
1	Part A (Adobe InDesign or CorelDraw)	8
2	Part B (Linux)	10
3	Part C (Adobe Photoshop or Adobe Flash)	12
4	Class Records	5
5	Viva	5
Total		40