SYLLABUS

2014-2015

PT. RAVISHANKAR SHUKLA UNIVERSITY
RAIPUR
CHHATTISGARH

SCHEME OF EXAMINATION 2014-2015

BCA PART- III

Subject Code	Subject Paper	Theory Marks		Internal Marks		Teaching per Week		Load
		Max.(A)	Min.(B)	Max.(C)	Min.	(D)	L	T
P BCA301	**Part I** Calculus & Geometry	50		-	-	2	-	-
	Part II DifferentiaL Equation & Fourier Series	50	60	-	-	2	-	-
	Part III Computer System Architect	50		-	-	2	-	-
BCA302	Java	100	40	50	30	4	2	-
BCA303	Operating Systems	100	40	50	30	4	2	-
BCA304	Software Engineering	100	40	50	30	4	2	-
BCA305	A. Multimedia tools and Applications	50	20	-	-	2	2	-
	B. Practical based on course 305A	50	20	-	-	-	-	2x2
BCA306	A. Financial Accountancy	50	40	-	-	2	-	-
	B. Foundation Course	50		-	-	2	-	-
BCA307	Practical Based on Course-302	100	50	-	-	-	-	3x2
BCA308	Project	100	50	-	-	-	-	1x2
	TOTAL	850	360	150	90			
	GRAND TOTAL (PAPER+INTERNAL)	**(A+C)** 1000	**(B+D)** 450					

Minimum passing marks in subject BCA301 is 40% of total marks 150(i.e. Total of Part I + Part II + Part III marks of BCA301)

BCA301
CALCULUS & GEOMETRY   Max. Marks : 50

NOTE :- The Question Paper setter is advised to prepare unit-wise question with the provision of internal choice. Only Simple calculator is allowed not Scientific calculator.

Calculus

Unit–I   The Reimann Integral, Existence of the Riemann Integral, Properties of Reimann Integrals, Fundamental Theorem of Integral Calculus.

Unit-II   Maxima and minima of functions of two and three variables. Langrange's method of undetermined multipliers.

Unit-III Improper integrals, Meaning of integrals of type ?a? f(x) dx, ?ab f(x) dx where f(x) is not defined at a and/or b. Tests of convergence for improper integrals.

Geometry

Unit-IV Equation to cone with given base, Generators of Cone, condition for three mutually perpendicular generators, Right Circular Cone, Equation of a cylinder.

Unit-V   Polar Coordinates, Polar equation to straight line, Circle. Polar equation of a Conic.

REFERENCE:
1. Calculus of two and more variables: G.S. Pandey & V.P. Saxena (Wiley Eastern)
2. Higher calculus : P.L.Sharma
3. Vector Calculus & Geometry : B.R.Thakur.

BCA 301
DIFFERENTIAL EQUATIONS & FOURIER SERIES

Max Marks : 50

Note :   The Question Paper setter is advised to prepare unit-wise question with the provision of internal choice. Only Simple calculator is allowed not Scientific calculator.

Unit–I   Concept of Differential equation. Recall of first order and first degree differential equations. Equation of first order but of higher degree. Homogeneous and exact differential equations.

Unit-II   Geometric representation, Family of curves and orthogonal trajectories. Linear differential equation with constant coefficients. Operational rules of D. Homogeneous linear equations.

Unit-III Partial differential equations of first order, Standard forms, Linear partial differential equations of higher order with constant coefficients.

Unit-IV Periodic Function, Fourier Sine and Cosine Series, Even and Odd Functions, Full Range and Half Range Fourier Series

Unit-V   Convergence of Fourier Series, Gibbs Phenomenon, Operations on Fourier Series, Applications of Fourier Series to Differential Equation

REFERENCE:
1. Introductory course in differential equations : D. A. Murray
2. Differential equations (Awkl Sameekaran) : B.P. Parashar & L.P. Rajpal
3. Differential equations and Fourier Series : H.K.Pathak

BCA 301
COMPUTER SYSTEM ARCHITECTURE   Max Marks : 50

Note :   The Question Paper setter is advised to prepare unit-wise question with the provision of internal choice. Only Simple calculator is allowed not Scientific Calculator.

UNIT-I   Data Representation – Data Types, Number System, Fixed Point Representation – 1's, 2's complements, Binary Fixed point representation, Arithmetic operation on Binary

operation, Overflow & Underflow, Codes, ASCII, EBCDIC codes, Grey codes, Excess-3, BCD codes, Error detection & correcting codes.

UNIT-II Digital Logic Circuits – Logic Gates AND, OR, NOT, Gates & their truth tables, NOR, NAND & XOR Gates, Boolean algebra, Basic Boolean Law, Doorman's theorem, Map Simplification, Minimizing technique, K Map, Sum of product, Product of sums, Combinational & sequential Circuits Half adder & Full adder, Full Subtractor, Flip Flop – RS, D, JK & T Flip Flop, Shift register, RAM & ROM.

UNIT-III CPU organization, ALU & Control circuit, Idea about arithmetic circuits, Program control, Instruction sequencing, Introduction to Microprocessor, Microprocessor architecture, System buses, Registers, Program counter,, Block diagram of a Macro computer system, Microprocessor control signals, Interfacing Devices ,Introduction to Motherboard ,SMPS

UNIT-IV Input output organization, I/O Interface, Properties of simple I/O devices and their Controller, Isolated versus Memory mapped I/O, Modes of Data transfer, Synchronous & Asynchronous Data Transfer, Handshaking, Asynchronous serial transfer, I/O processor

UNIT-V Auxiliary memory - Magnetic drum, Disk & Tape, Semi conductor memories, Memory Hierarchy, Associative memory, Virtual memory, address space & memory space, Address mapping, Page table, Page replacement, cache memory, Hit ratio, Mapping Techniques, Writing into cache.

REFERENCE:
1. Computer System architecture - M. Moris Mano

BCA - 302
PROGRAMMING IN JAVA

Max marks-100   **Min marks – 40**

Note : The Question Paper setter is advised to prepare unit-wise question with the provision of internal choice. Only Simple calculator is allowed not Scientific calculator.

UNIT-I **Introduction :** Genesis of java, importance to the Internet, overview of features.
OOP : OOP features, data types, control structures, arrays, methods and classes, nested & inner classes, string and String Buffer class, Wrapper Class, vectors,

UNIT-II **Inheritance :** Basics type,, method Override, using abstract and final classes, using super.
Packages and Interfaces : Defined CLASSPATH, importing packages, implementing interface.

UNIT-III **Exception Handling :** Fundamental: exception types, using try and catch, throwing exceptions, defined exceptions.
Multithreaded Programming : Java spread model, creating threads, and thread priorities, synchronization. Suspending resuming and stopping threads.

UNIT-IV **Input/Output :** Basic Streams, Byte and Character Stream, predefined streams, reading and writing from console and files. Using standard Java Packages (lang,util,io)
Networking : Nasecs. TCP/IP client & server sockets, URL connection.
JDBC: Setting the JDBC connectivity with backend database.

UNIT-V **Applets :** Fundamentals, life cycle, overriding update, HTML APPLET tag, passing parameters. Developing single applets.
Introduction to AWT : Window fundamentals, creating windowed, programs waking with graphics, using AWT controls, menus. Delegation event model, handling mouse and keyboard events.

BOOKS RECOMMENDED:
1. Java complete reference - by Patrick naughten & Mesut Scpddt. [TMH]
2. Java Primer - by E.Balaguruswami
3. Java Programming - Khalid Mughal

BCA - 303
OPERATING SYSTEM

Max marks-100   **Min marks – 40**

Note : The Question Paper setter is advised to prepare unit-wise question with the provision of internal choice. Only Simple calculator is allowed not Scientific calculator.

UNIT-I   Introduction

What is operating system, basic concept, terminology, batch processing, spooling, multiprogramming, time sharing, real time systems, protection, multiprocessor system, operating system as resource manager, process view point, memory management, process management, device management and information management, other views of operating system, historical, functional job control language and supervisor service control.

UNIT-II Processor Management (CPU Scheduling)

Reviewing of multiprogramming concept, scheduling concept, basic concept, CPU I/O burst cycle process state, PCB (Programme Control Block) scheduling queries, schedulars, scheduling algorithms - performance criteria, first-come - first served shortest job - first priority, preemptive algorithm, round robin, multilevel queues and multilevel feedback queues, algorithm evolution, multiprocessor scheduling , separate system, coordinated job scheduling, master / slave scheduling.

UNIT-III Memory Management

Preliminaries of memory management, memory handling in M/C, relocation, swapping and swap time calculation, multiple partitions, partitioned allocation MFT, fragmentation, MVT, compaction, paging, job scheduling implementation of page tables, shared page, virtual memory-overlays, concepts of virtual memory demand page, memory management and performance, page replacement and page replacement algorithms. Allocation algorithms. Storage hierarchy disk and drum scheduling - physical characteristics fcfs scheduling SCAN, short of seek time first disk scheduling algorithms sector queuing.

UNIT-IV Information Management (File System)

File concept, file type, typed based system, disk based system, general model of file system, file directory maintenance, symbolic file system, basic file system, physical file system, file support device directory, access methods free space management contiguous, linked allocation and indexed allocation performances.

UNIT-V Dead Locks

The Dead Lock problem - Dead Lock definition, Dead Lock detection, detection algorithm usage, Dead Lock characterization, resource allocation graph, Dead Lock prevention, mutual exclusion, hold and wait, no preemption and circular wait, dead lock avoidance-bankers algorithm. Recovery from Dead Lock process termination, resource preemption, combined approach to Dead Lock handling.

BOOKS   RECOMMENDED :
1. Principles of Operating System - Peterson.
2. Operating System - Mandinick & Donovan.

BCA (Third Year) : BCA - 304
SOFTWARE   ENGINEERING

Max marks-100   **Min marks – 40**

NOTE :- The Question Paper setter is advised to prepare unit-wise question with the provision of internal choice.

Unit-1   Introduction to Software Engineering
- e.   Definition
- f   Need and Software problem
- g.   Software Crises
- h.   Software Engineering Problem
    1.   Fundamental Problem
    2.   Important Quality of Software Product
- i   Software Engineering Approach
    1.   Phase Development Process
    2.   Life Cycle of Software
- j   Principles Of Software Engineering
- k.   Software Development Process Model
    1.   Waterfall model
    2.   Spiral Model
    3.   Prototype Model
    4.   Iterative Model

Unit-2   Project Management
- a   The Phase Management Process
- b.   Software Metrics
    1.   Size Oriented Metrics
    2.   Function Oriented Metrics

Unit-3   Software Requirement and Specification
- a.   Introduction and Need of SRS
- b.   Structured Analysis
    1.   Data Flow Diagram
    2.   Context Diagram
    3.   Data Dictionary

Unit-4   Software Design & Coding
- f   Principle of Software Design
    1.   Partitioning
    2.   Abstraction
    3.   Top Down and Bottom up Strategies
- g.   Concept of Module
    1.   Coupling
    2.   Cohesion
    - h.   Structured Chart
- i   Coding –   a. Rules of Good programming Style
                 b. Code Verification

Unit-5   Software Testing and Maintenance
- a.   Definition
- b.   Testing Fundamentals
       Error, Fault, Failure
- c.   Test Oracles
- d.   Types of Testing

1. Black Box Testing
2. White Box Testing
    e. Level of testing- Unit, Integration, System, Acceptance
    f. Introduction of Maintenance

Books

1. Software Engineering - by Roger Pressmen

BCA - 305
MULTIMEDIA TOOLS AND APPLICATIONS

Max marks-50   Min marks – 20

Note : The Question Paper setter is advised to prepare unit-wise question with the provision of internal choice. Only Simple calculator is allowed not Scientific calculator.

UNIT-I   **Multimedia :** Needs and areas of use, Development platforms for multimedia – DOS, Windows, Linux. Identifying Multimedia elements – Text, Images, Sound, Animation and Video, Making simple multimedia with PowerPoint.

Text – Concepts of plain & formatted text, RTF & HTML texts, using common text preparation tools, Conversion to and from of various text formats, using standard software, Object Linking and Embedding concept, Basics of font design, overview of some fonts editing and designing tools, Understanding & using various text effects.

Images – importance of graphics in multimedia, Vector and Raster graphics, image capturing methods – scanner, digital camera etc. various attributes of Images – size, color, depth etc, Various Image file format – BMP, DIB, EPS, CIF, PEX, PIC, JPG, TGA, PNG and TIF format – their features and limitations, graphic file formats conversions, processing images with common software tools such as Photoshop, Paint Shop pro, Corel draw etc..

UNIT-II   **Sound :** Sound and it Attributes, Mono V/s Stereo sound, Sound channels, Sound and its effect in multimedia, Analog V/s Digital sound, Basics of digital sounds-Sampling, Frequency, Sound Depth, Channels, Sound on PC, Sound standards on PC, Capturing and Editing sound on PC, Overview and using some sound recording, editing software. Overview of various sound file formats on PC – WAV, MP3, MP4, Ogg Vorbose etc.

Animation: Basics of animation, Principle and use of animation in multimedia, Effect of resolutions, pixel depth, Images size on quality and storage. Overview of 2-D and 3-D animation techniques and software- animation pro, 3D studio & Paint Shop pro animator.

Animation on the Web – features and limitations, creating simple animations for the Web using GIF Animator and Flash.

UNIT–III **Video :** Basics of Video – Analog and Digital Video, How to use video on PC. Introduction to graphics accelerator cards, DirectX Introduction to AV/DV and IEEE1394 cards , Digitization of analog video to digital video, Interlacing and non-interlacing, Brief note on various video standards – NTSC, PAL, SECAM, HDTV, Introduction to video capturing Media & instrument – Videodisk, DVCAM, Camcorder, Introduction to digital video compression techniques and various file formats – AVI, MPEG, MOVE Real Video.

Brief Introduction to video editing and movie making tools – Quick time, video for windows & Adobe premier.

UNIT–IV **Authoring tools for CD Based Multimedia:** Type of multimedia authoring tools, key factors of selecting CD based multimedia authoring tools, Planning and distribution of a multimedia project. Multimedia development team & skills requirement, Stages in designing & producing multimedia products for CD, Testing of product, distribution of

multimedia product, various formats of CD's and DVD's.

UNIT–V Multimedia on the Web: Bandwidth relationship, broadband technologies, Text in the web – Dynamic and embedded font technology, Audio on the Web – Real Audio and MP3/MP4, Audio support in HTML, Graphics – HTML safe color palate, Interlaced V/s Non interlaced model, Graphics support in HTML, Image Map, Video on the Web – Streaming video, Real Video, MPEG and SMIL, Virtual Reality on the Web.

TEXT AND REFERENCE BOOKS :

1   Multimedia: Making It Work (4th Edition) – by Tay Vaughan, Tata Mcgraw Hills.
2   Multimedia In Action – James E Shuman – Vikas Publishing House.
3   Multimedi Basics – Volume – 1 Technology, Andreas Holzinger, Firewall Media (Laxmi Publications Pvt. Ltd) New Delhi.

BCA-306(A)
FINANCIAL   MANAGEMENT   &   ACCOUNTANCY

Max marks-100   Min marks – 40

Note : The Question Paper setter is advised to prepare unit-wise question with the provision of internal choice. Only Simple calculator is allowed not Scientific calculator.

UNIT-I 1.   Financial Accounting :
Meaning and Nature, Accounting Principles underlying the preparation of financial statements.

2.   Preparation of Financial Statements :
A Synoptic view-Profit and Loss account, Balance Sheet

UNIT-II 3.   Financial statement Analysis
Ratio analysis (Liquidity, Solvency, Profitability, Efficiency), Statement of Changes in financial position-working capital basis.

4.   Conceptual Framework of Cost Accounting
Meaning nature and need of cost accounting, Elements of cost, Preparation of cost – sheet, Cost concept –Fixed and variable costs, sunk costs, Out of pocket costs, Relevant and irrelevant costs, Opportunity and imputed costs.

UNIT-III 5.   Cost – volume Profit (CVP) relationship
Break-even analysis; (single and multiple products), Determination of sales volume to attain desired profits, Cash break-even point. Graphic presentation of CVP relationship. Assumptions and limitation of break-even analysis

UNIT-IV 6.   Budgeting :
Definition and objective. Preparation of various types of budgets including cash budget. Fixed and flexible budgets.

UNIT-V 7.   Cost Accumulation System
Job and Process (simple treatment)

8   Variable and absorption costing systems
Comparison for income determination (simple treatment), Variable costing as a tool of decision-making

BCA306 (B)
FOUNDATION   COURSE   Max marks-50

NOTE :- The Question Paper setter is advised to prepare unit-wise question with the provision of internal choice.

Unit-I Essay type answer in about 200 words. Four essay. Type question to be asked and two to be attempted.

Unit–II Writing skills for composition- Essay writing.

Unit-III	Precis Writing	
Unit-IV	Roading Comprehension of an unseen passage	:10 Marks
Unit–V	Vocabulary based on text	:5 Marks
	Grammar- Advanced Exercises.	

Note:- Questions on unit I and IV (b) Shall be asked from the prescribed text. Which will comprise popular creative writing and the following items.

Minimum needs- Housing and Transport. Geo -economic profile of women and Empowerment, Management of change . Quality of life, war and human survival, the question of human social value survival , the question of human Social value, new Economic Philosophy. Recent Liberalisation methods, Demoratic decoralisation(With reference to 73,74 constitutional Amendment)

The text book shall be sponsored by the M.P. Higher Education Department and published the M.P. Hindi Granth Academy.

PRACTICAL WORK
BCA III
BCA-305 (B) MULTIMEDIA TOOLS AND APPLICATIONS

1. Scheme of Examination:-

   Practical examination will be of 3 hours duration. The distribution of practical marks will be as follows

Programme 1	-	10
Programme 2	-	10
Viva	-	15
[Practical Copy + Internal Record]	-	15
Total	**-**	**50**

2. In every program there should be comment for each coded line or block of code
3. Practical file should contain printed programs with name of author, date, path of program, unit no. and printed output.
4. All the following programs or a similar type of programs should be prepared

FLASH LIST OF PRACTICALS

Q.1. Draw the following shapes neatly in Flash and convert them in symbols. Also apply different transformations like scale, rotate, skew, skip etc.

1. Fish	2. Palm Tree
3. Swan	4. Teddy Bear
5. Tree	6. Santa Claus
7. House	8. Car
9. Ballon	10. Boat

Q.2. Create a Flash movie to draw the symbol of an animal and apply motion between.

Q.3. Create a Flash movie to create a minimum of five layers (Water, fish, bubbles, plants etc) of an aquarium and apply motion between.

Q.4. Create a Flash movie to create mask.

Q.5. Create a Flash movie to create Fade In/Fade Out in four pictures.

Q.6. Create a Flash movie to create the symbol of a wheel and scale and rotate it.

Q.7. Create a flash movie to create growing circles.

Q.8. Create hand writing in Flash.

Q.9. Create a Flash movie of a moving car with rotating wheels.

Q.10. Transform a circle into a square using shape tween.

Q.11. Create a Flash movie to import text from MS-Word and apply different transformations.

Q.12. Create a Flash movie to demonstrate onion skin markers.

Q.13. Create a Flash movie to create ripple effect.

Q.14. Create a Flash movie to demonstrate motion guide.

Q.15. Create a Flash movie of a sheep climbing a mountain using layers. Tehe scenery should contain mountain, river, trees, clouds, birds, sheep etc.

PHOTOSHOP LIST OF PRACTICALS

Q.1. Import an image in Photoshop and change its background using marquee and lasso tools.

Q.2. Import an image in Photoshop and copy it using heal brush tool.

Q.3. Import an image in Photoshop and desaturate it and recolor it.

Q.4. Use layers and filters to design an image in Photoshop. Use the flatten image as well.

Q.5. Import an image in Photoshop and desaturate it and reveal selective portions.

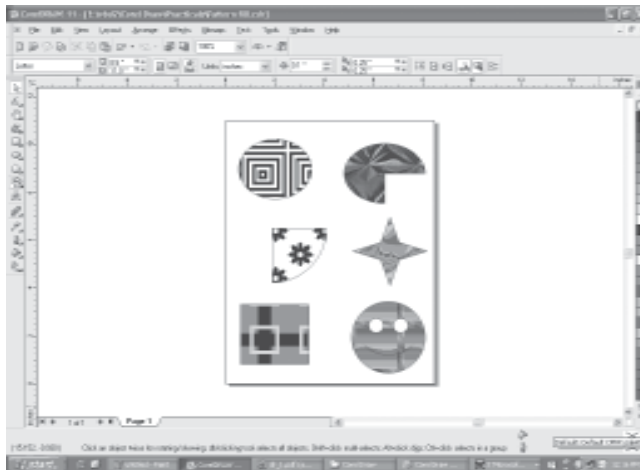## CORAL DRAW LIST OF PRACTICALS

Q1. Draw the following shapes:
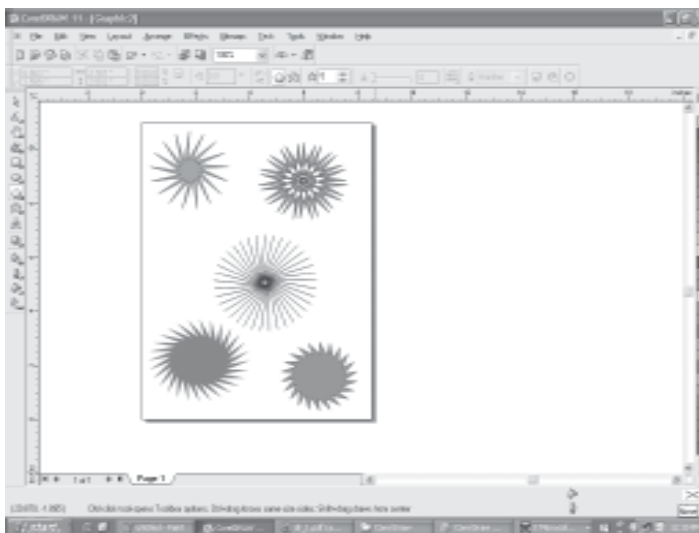
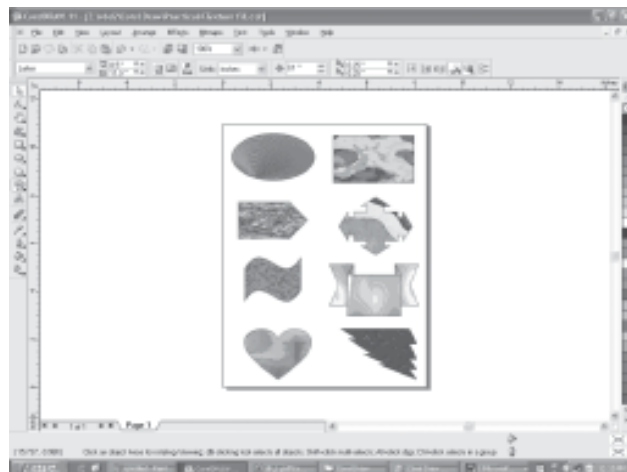Q.2. Use artistic media brush tool to create different backgrounds.
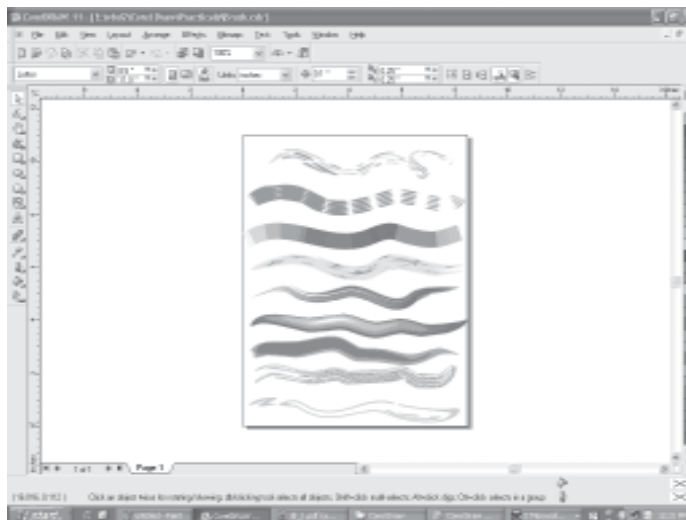
Q3. Use sprayer tool to create different backgrounds.
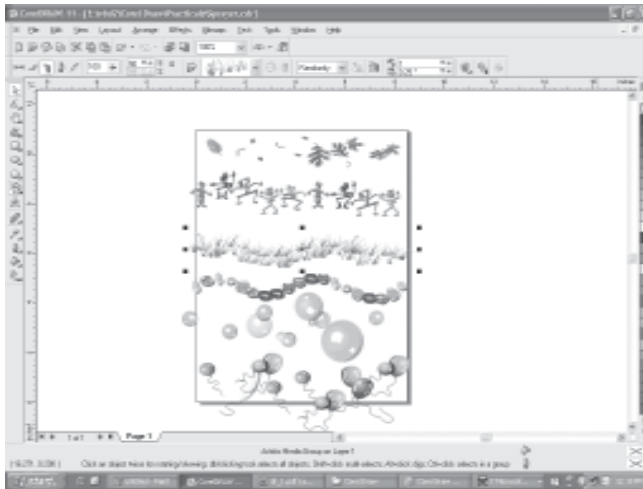
Q.4. Draw different objects and fill them with different patterns.

Q.5. Draw different objects and fill them with different textures.

1. Making a simple Video file (not using video file) with suitable sound file using Windows Movie Maker
2. Edit Video file, like - changing sound and adding starting and ending banner with title using Windows Movie Maker.
3. Create a .WAV file with the help of Windows sound recorder application.
4. With the help of Adobe Image Ready create attractive .GIF image.
5. Create & save MP4 files using appropriate software.
6. Create & save MP3 files using appropriate software.
7. Insert sound clips in webpage using Front Page application Software.

PRACTICAL WORK
BCA-307 JAVA

1 Scheme of Examination:-
Practical examination will be of 3 hours duration. The distribution of practical marks will be as follows

Programme 1	-	20
Programme 2	-	20
Programme 3	-	20
Viva	-	25
[Practical Copy + Internal Record]	-	15
Total	**-**	**100**

2 In every program there should be comment for each coded line or block of code
3 Practical file should contain printed programs with name of author, date, path of program, unit no. and printed output.
4 All the following programs or a similar type of programs should be prepared

List of Practical

1. WAP that implements the Concept of Encapsulation.
2. WAP to demonstrate concept of Polymorphism (function Overloading and constructor Overloading).
3. WAP the use boolean data type and print the Prime number Series up to 50.
4. WAP to print first 10 number of the following Series using Do---While Loops 0, 1, 1, 2, 3, 5, 8, 11.................
5. WAP to sort the element of One Dimensional Array in Ascending order.
6. WAP for matrix multiplication using input/output Stream.
7. WAP to add the elements of Vector as arguments of main method (Run time) and rearrange them, and copy it into an Array.
8. WAP to check that the given String is palindrome or not.
9. WAP to arrange the String in alphabetical order.
10. WAP for StringBuffer class which perform the all methods of that class.
11. WAP to calculate Simple Interest using the Wrapper Class.
12. WAP to calculate Area of various geometrical figures using the abstract class.
13. WAP where Single class implements more than one interfaces and with help of interface reference variable user call the methods.
14. WAP that use the multiple catch statements within the try-catch mechanism.
15. WAP where user will create a self-Exception using the "throw" keyword.
16. WAP for multithread using the isAlive(), join() and synchronized() methods of Thread class.
17. WAP to create a package using command and one package will import another package.
18. WAP for AWT to create Menu and Popup Menu for Frame.
19. WAP for Applet that handle the KeyBoard Events.

20. WAP, which support the TCP/IP protocol, where client gives the message and server will receive the message.
21. WAP to illustrate the use of all methods of URL class.
22. WAP for JDBC to insert the values into the existing table by using prepared Statement.
23. WAP for JDBC to display the records from the existing table.
24. WAP to demonstrate the Border Layout using applet.
25. WAP for Applet who generate the MouseMotionListener Event.
26. WAP for display the checkboxes, Labels and TextFields on an AWT.
27. WAP to calculate the Area of various geometrical figures using the abstract class.
28. WAP for creating a file and to store data into that file.(Using the FileWriterIOStream)
29. WAP to read file and display its content using FILEINPUTSTREAM & RANDOMACCESSFILE
30. WAP accepting 2 inputs as a source and target file name and writes the content from the source to target.
31. WAP to display your file in DOS console use the Input/Output Stream.
32. WAP to create an Applet using the HTML file, where Parameter Pass for font Size and Font type and Applet message will change to corresponding parameters.

PRACTICAL WORK
BCA III
BCA-308 Project

1. Scheme of Examination:- The Project should be done by individual student.
   Practical examination will be of 3 hours duration. The distribution of practical marks will be as follows

Software Demonstration	-	40
Project Report (Hard Copy + Soft Copy)	-	20
Project Demonstration/Presentation	-	20
Project Viva	-	20
Total	**-**	**100**

2. Format of the student project report on completion of the project
   - Cover page as per format
   - Certificate of Approval
   - Certificate of project guide/Center Manager
   - Certificate of the company/Organization
   - Certificate of Evaluation
   - Declaration / Self Certificate
   - Acknowledgement

   In the "Acknowledgement" page, the writer recognizes his /her indebtedness for guidance and assistance of the thesis/report adviser and other members of the faculty. Courtesy demands that he/she also recognize specific contributions by other persons or institutions such as libraries and research foundations. Acknowledgements should be expressed simply, tastefully, and tactfully.
   - Synopsis of the project
   - Main Report
     - ✓ Objectives & Scope of the project
     - ✓ Theoretical Background of Project
     - ✓ Definition of problem
     - ✓ System Analysis & Design
     - ✓ System Planning (PERT Chart)

- ✓ Methodology adopted, system Implementation & Detail of Hardware & Software used
- ✓ System maintenance & Evaluation
- ✓ Cost and benefit Analysis
- ✓ Detailed Life Cycle of the project
  - o ERD, DFD
  - o Input and Output Screen Design
  - o Process involved
  - o Methodology used for testing
  - o Test Report, Printout of the code sheet
- ✓ User/Operational Manual- including security aspects, access rights, back up, Controls etc.
- ✓ Conclusion
- ✓ References
- ✓ Soft copy of the project on CD

Formats of various certificates and formatting styles are as:

1. Project report Cover Format:

<div align="center">

A

Project Report

On

Title of the Project Report

(Times New Roman.Italic, Font Size = 24)

Submitted in partial fulfillment of the requirements for the award of degree

Bachelor of Computer Application

From

Pt.Ravishankar Shukla University Raipur (C.G.)

(Bookman Old Style, 16 Point, Center)

Year : xxxx

Logo of college

</div>

Guide   Submitted by:
(Guide Name)   (Student's Name)
                                                                                                     Roll No:

<div align="center">

Submitted to
(College Name)
Pt.Ravishankar Shukla University Raipur (C.G.)

</div>

2. Certificate of Approval by Head of the Department in letter head

<div align="center">

CERTIFICATE OF APPROVAL

</div>

This is to certify that the Project work entitled " _____ " is carried out by Mr/Ms/Mrs _____ , a student of BCA – III year at **(College Name)** is hereby approved as a credible work in the discipline of Computer Science & Information Technology for the award of degree of **Bachelor of Computer Application** during the year _____ from **Pt. Ravishankar Shukla University, Raipur (CG).**

(Head Name)

8. Certificate from the Guide in letter head

CERTIFICATE

This is to certify that the Project work entitled " _____" Submitted to the (College Name) by Mr/Ms/Mrs _____ Roll No _____ , in partial fulfillment for the requirements relating to nature and standard of the award of Bachelor of Computer Application degree by , Pt. Ravishankar Shukla University, Raipur (CG) for the academic year 20____ - 20____ .

This project work has been carried out under my guidance.

(Guide Name)

9. Certificate of the Company or Organisation from where the Project is done from the Project Manager or Project guide.

10. Certificate of evaluation in the department letter head

CERTIFICATE OF EVALUATION

This is to certify that the Project work entitled " _____" is carried out by Mr/Ms/Mrs _____ , a student of BCA – III year at (College Name), after proper evaluation and examination, is hereby approved as a credible work in the discipline of Computer Science & Information Technology and is done in a satisfactory manner for its acceptance as a requisite for the award of degree of Bachelor of Computer Application during the year _____ from Pt. Ravishankar Shukla University, Raipur (CG).

Internal Examiner   External Examiner

11. Declaration of Student / Self Certificate

DECLARATION

This to certify that the project report entitled "_____", which is submitted by me in the partial fulfillment for the award of the degree of Bachelor of Computer Application, (College Name), comprises the original work carried out by me.

I further declare that the work reported in this project has not been submitted and will not be submitted, either in part or in full for the award of any other degree or diploma in this Institute or any other Institute or University.

Place :   (Name)
Date :   (Roll No)

- - - - - - - -