

PROGRAM /COURSE STRUCTURE & SYLLABUS

**as per the Choice Based Credit System (CBCS)
designed in accordance with
Learning Outcomes-Based Curriculum
Framework (LOCF)**

**of National Education Policy (NEP) 2020
for Undergraduate Program in
COMPUTER APPLICATION**

**B.COM. HONOURS IN
COMPUTER APPLICATION PROGRAMME
AS PER NEP 2020**

(Effective from June-2023)

COMPUTER APPLICATIONS- Major**SEMESTER 3 - FIRST YEAR B. COM.****Discipline specific course – Major /CORE SUBJECT**

Semester	Course No	Title of Course	Paper Name	Topic	Credit Total [04]	
					Theory	Practical.
3	DSC-C-211-G	Computer Applications	Introduction to Cyber security and Multimedia	Cyber security and Photoshop	50%	50%
3	DSC-C -212-G	Computer Applications	Introduction to Open Source software & Multimedia	Open Source software & Synfig Studio	50%	50%
3	DSC-C-213-G	Computer Applications	Introduction to CRM and Outlook	CRM and outlook	50%	50%

Teaching Methodology: Lectures & Practical's

COMPUTER APPLICATIONS- Major**GUJARAT UNIVERSITY
COMPUTER SYLLABUS FOR BCOM****SEMESTER - III****Title of Course: COMPUTER APPLICATIONS****Discipline specific course – Major /CORE SUBJECT****MAJOR COURSE CODE: DSC-C- 211-G****COURSE NAME: INTRODUCTION TO CYBER SECURITY AND MULTIMEDIA****Topics to be covered:** Basics of Cyber security, Basic of Multimedia. and Photoshop**Course Objectives:**

- To equip individuals with foundational knowledge and practical skills in basic cybersecurity principles, threat awareness, and protective measures, fostering a safer online environment for personal and professional activities.
- To cultivate awareness and understanding of cybersecurity risks, best practices, and preventive measures, empowering individuals to mitigate threats, protect sensitive information, and navigate the digital landscape securely.
- Familiarize beginners with the basic tools and functionalities of Photoshop, enabling them to perform essential tasks such as image cropping, resizing, and color adjustments.
- Cultivate creativity and artistic expression by introducing students to basic design principles and encouraging experimentation with various Photoshop techniques to create visually compelling digital artwork.

Unit I: Introduction to Cyber World

- Understanding the Cyber World
- Basic Terminology: Cybersecurity, Cybercrime, and Cyber Ethics
- The Importance of Cyber Awareness
- Recognizing Common Cyber Threats
- Types of cyber scams
- Overview of Cyber Crimes: Types and Examples
- Case Studies of Notable Cyber Crimes
- Identifying and Avoiding Online/E-commerce Scams
- Preventing financial fraud
- Social Media Risks and Privacy Concerns
- Cyberbullying Awareness and Prevention
- Managing Online Reputation: Posting Responsibly and Understanding the Permanence of Online Content
- Reporting Cyber Crimes and Blocking Unwanted Contacts or Content
- Overview of Cyber Laws

COMPUTER APPLICATIONS- Major**Unit II: Cyber Security Fundamentals**

- Principles of Cyber Security
- Secure Password Practices
- Authentication and Access Control
- Safe Browsing Practices
- Email Security
- Risks in Online Transactions
- Secure Payment Methods
- Safeguarding Sensitive and personal Information
- Securing Devices and Networks
- Basics of Computer Security: Antivirus Software, Firewalls, and Updates
- Understanding and Avoiding Public Wi-Fi Risks
- Secure Wi-Fi Practices: Password Protection and Encryption
- Safe Web Browsing Practices: Recognizing Secure Websites and Avoiding Malicious Link

Unit III: INTRODUCTION TO PHOTOSHOP

Introduction and Basic Concepts, Objectives, Starting Photoshop
Screen layout of Photoshop.

Getting Images in Photoshop: Scanning, Importing, Fill size settings, create new image, cropping image.

Editing and Retouching: Correcting mistakes, reverting to any state of the image, Moving, Copying and pasting selections, drag and drop, transforming, rubber stamp, dodge tool, burn tool, sharpen Tool

Using Brush Palette: To choose a brush setting for a painting or editing tool, create a custom brush shape, Setting brush options, Hardness, Spacing, Angle, Roundness

Using Layers: Layers, Editing Layers, transparency, add a new layer, selection into a new layer, background to an image/ into a layer, Editing and removing layer effects

Unit IV: EXTENDED USE OF PHOTOSHOP

Using Channel and Mask: Using the Channels Palette, Select a channel, show/hide channel, Alpha channels

Using Type: Outline Type, Bitmap Type, Creating Type, Entering Text, font family, type size, anti-aliasing

Using Filters: Edge effects, glass surface controls, Lighting Effects Filter/Type/Style.

Eye Candy: For creating great effects

INPUT AND OUTPUT TARGETTING

Saving and Exporting: To save a file, load, saving file in different format [like JPEG, GIF, PDF, TIFF], Delegation of Output Targets , Understanding Half-toned Cell, Resolution Factor, Printing

Color: How color management systems work, device profiles, color management module, workflow, etc.

*** **

COMPUTER APPLICATIONS- Major

Mode of Evaluation: Evaluation will be divided into two parts.

External: Annual Examination will be conducted by the Gujarat University of 50 Marks (**25 [50%] marks of theory and 25 [50%] marks of practical's**) (in theory 4 Descriptive Questions and 1 MCQ)

Internal: Internal Evaluation will be decided by the University from time to time and instructed to colleges. The following can be considered as the model evaluation system.

[Out of 50 Marks, 30 Marks will be awarded on the basis of Internal Evaluation Mechanism (E.g., Mid Term Examination, CIE). For 10 Marks the following Assessment tools can be used. And 5 Marks will be given on the basis attendance.]

Assessment Tools:

Following Assignments (Anyone) can be given to the students for the purpose of internal assessment.

- Computer Hacking and unauthorized access.
- Basic concepts of graphics
- Basics of photo shop
- create attractive Brochures.
- Information Bulleting
- Advertisement, Pamphlets
- Inquiry Form etc.

Course Outcome

Acquiring knowledge and skills in cyber security, multimedia and photo shop boosts your self-confidence in using graphics technology, empowering you to be more independent, productive, and successful in various graphics aspects in designing.

FBLD (Flip Blended Learning Design Template)

- Any One Unit from the above syllabus can be discussed by the faculty through online mode.
- Online mode can be SWAYAM MOOC Course or any other suggested by the UGC or Gujarat University.

MOOC Courses

Fundamentals of cyber security, multimedia, graphics basic and features of photo shop

COMPUTER APPLICATIONS- Major**Text and Reference Books:**

- Computer Application – IV, Vimal Pandya, HK Arts College Publishers, Ahmedabad [Gujarati Book]
- Photoshop, BPB Publications
- Adobe Photoshop Help (https://helpx.adobe.com/pdf/photoshop_reference.pdf)
- An introduction to Adobe Photoshop , steve back
(<https://www.otcbahrain.com/wp-content/uploads/2017/12/An-Introduction-to-Adobe-Photoshop.pdf>)
- [Cyber Security Essentials](#) - Paperback (Dec. 15, 2010) by James Graham, Ryan Olson and [Rick Howard](#), BPB Publication
- Trout, B. (2007). "Cyber Law: A Legal Arsenal For Online Business", New York: World Audience, Inc.
- Emerging Technologies and the Law: Forms and Analysis, by [Richard Raysman](#), Peter Brown, Jeffrey D. Neuburger and William E. Bandon, III. Law Journal Press, 2002-2008. [ISBN 1-58852-107-9](#)
- Warren & Louis Brandeis, The Right to Privacy , 4 Harv. L. Rev. 193 (1890)
- Solove, D.,Schwartz, P.. (2009). Privacy, Information, and Technology. (2nd Ed.). New York, NY: Aspen Publishers. [ISBN 978-0735579101](#).

PRACTICAL - Photoshop

1. Artistic & Blur Effect
2. Brush Strokes & Distort Effect
3. Noise & Pixelate Effect
4. Render & Sharpen Effect
5. Sketch & Stylize Effect
6. Create Banner
7. Create Brochure
8. Create Inquiry Form
9. Create Information Booklet
10. Mix the picture [take 3 to 4 photos]

COMPUTER APPLICATIONS- Major**NOTE:**

1. The norms including workload of any type of computer subjects (Major/Minor/Multi-Disciplinary/Soft Skill /Ability Enhancement course) in B.A./B.Com. shall be considered based on the below mentioned ratio of computer students per batch due to having technical subjects.
2. The duration of each Theory and Practical session is 55 minutes.
3. The maximum batch size for any computer related subject in any division of each semester for theory session is 60 students.
4. The batch size of practical session for any computer related subject in any semester is 15-20 students.
5. Any type of computer related subject can be offered in English / Gujarati or both Mediums.
6. The Theory and Practical sessions (workload) shall be applicable for English and Gujarati (both) medium separately.
7. The number of Minimum / Maximum of practical sessions shall be considered as per the framework and credits defined under the policy NEP 2020.
8. Minimum of 75% attendance is required to appear for the practical examination.
9. Minimum practical exercises must be completed by students before the examination.
10. The submission of computer journal for the respective subjects is mandatory for all the students of computer.
11. The certified journal by the competent authority of the college needs to be presented by students at the time of practical examination.
12. The submission of assignments and presentation is mandatory as per the norms laid down by the competent authority of Gujarat University under NEP 2020.
13. Students must appear in both the theory and practical examination of each term in the Internal and External examination.
14. The evaluation pattern for the weightage in Internal and External examination shall be considered as per the policy framed by the Gujarat University.

COMPUTER APPLICATIONS- Major**GUJARAT UNIVERSITY
COMPUTER SYLLABUS FOR BCOM****SEMESTER – III****Title of Course: COMPUTER APPLICATIONS****Discipline specific course – Major /CORE SUBJECT****MAJOR COURSE CODE: DSC-C – 212-G****COURSE NAME: INTRODUCTION TO OPEN-SOURCE SOFTWARE & MULTIMEDIA****Course Objectives:**

- Introduce students to versatile open-source software tools like GIMP, LibreOffice and VLC.
- Learn to use Synfig Tools for animation and digital art projects.
- Develop skills for creative expression through open-source resources.
- Gain proficiency in multimedia production using free and accessible tools.

UNIT I UNDERSTANDING OPEN SOURCE:

- Definition of Open Source and its core principles.
- Differentiating between Open Source and proprietary software models.
- Examples of popular Open-Source software and their significance.

Benefits of Open Source:

- Exploring the advantages of using Open-Source software.
- Discussion on cost-effectiveness, customization, and community-driven development.

Introduction to Open-Source Tools:

- Overview of essential Open-Source tools for various purposes (e.g., LibreOffice for office productivity, GIMP for image editing, VLC Media Player for multimedia).
- Hands-on demonstration of installing and using Open-Source software on different platforms.

UNIT II MULTIMEDIA

Definition of multimedia and its significance in computer science

Explaining the integration of various media types (text, images, audio, video) in multimedia applications.

Examples of multimedia applications in everyday life (e.g., websites, presentations, digital art).

Multimedia Components:

Introduction to the basic components of multimedia: text, images, audio, and video.

Exploring different file formats associated with each multimedia component (e.g., JPEG for images, MP3 for audio, MP4 for video).

Understanding the characteristics and properties of each multimedia component.

COMPUTER APPLICATIONS- Major**Digital Imaging:**

Overview of digital imaging concepts and techniques.

Introduction to image editing software (e.g., Adobe Photoshop, GIMP) for manipulating and enhancing digital images.

Basic image editing operations such as cropping, resizing, and adjusting brightness/contrast.

Audio and Video Editing:

Introduction to audio and video editing concepts.

Exploring audio editing software (e.g., Audacity) for recording and editing audio clips.

Basic audio editing operations such as trimming, fading, and adding effects.

Introduction to video editing software (e.g., Adobe Premiere Pro, iMovie) for editing and enhancing video footage.

Basic video editing operations such as cutting, merging, and adding transitions.

Multimedia Integration:

Understanding how different multimedia components are integrated into multimedia projects.

Exploring multimedia authoring tools (e.g., Adobe Flash, Adobe Animate) for creating interactive multimedia content.

UNIT III SYNFIG TOOLS AS MULTIMEDIA**Overview of Synfig Studio:**

Introduction to vector and raster graphics in animation, Introduction of Synfig Studio, how to start, its screen and its parts, Overview and uses of Synfig, Synfig environment, Creating new Synfig file, User interface of Synfig, workspace, Menu bar, Timeline, Property Panel, Motion Editor Panel

Saving files: Compressed Synfig file *.sifz, uncompressed Synfig file *.sif, Container format File *.sfg. Revert, Import, Import Sequence, Preview, Render, Tool Bar, Show/Hide Handles, Low Res-Pixel Size, Show Grid, Snap to Grid, snap to Guide, Enable Rendering in Background, show Onionskin. Navigation, Canvas, Property.

UNIT IV BASIC NAVIGATION AND CREATING YOUR FIRST ANIMATION

Toolbox: Transform, Smooth move, Scale, Rotate, Mirror, circle, Rectangle, Star, Polygon, Gradient, spine, Draw, CutOut, Width, Fill, Eye drop, Text, Sketch, Zoom

Layer: Add Layer, Duplicate Layer, Copy Layer, Delete Layer, Remove Layer from Set. Increase/Decrease Opacity, Plug-Ins

What is tweening? Time bar and its use, keyframe and its use, use of time loop, morphing, what is Kinematics?

*** **

COMPUTER APPLICATIONS- Major

Mode of Evaluation: Evaluation will be divided into two parts.

External: Annual Examination will be conducted by the Gujarat University of 50 Marks (**25 [50%] marks of theory and 25 [50%] marks of practical's**) (in theory 4 Descriptive Questions and 1 MCQ)

Internal: Internal Evaluation will be decided by the University from time to time and instructed to colleges. The following can be considered as the model evaluation system.

[Out of 30 Marks, 15 Marks will be awarded on the basis of Internal Evaluation Mechanism (E.g., Mid Term Examination, CIE). For 10 Marks the following Assessment tools can be used. And 5 Marks will be given on the basis attendance.]

Assessment Tools:

Following Assignments (Anyone) can be given to the students for the purpose of internal assessment.

- Basics of open source
- Understand the evolution of animation and its fundamental principles.
- Familiarize with Synfig Studio's environment and basic functionalities.
- Create a simple animated scene using basic shapes and movements.

Course Outcome

- Familiarity with various open-source software options for multimedia creation.
- Proficiency in utilizing Synfig Tools for animation and multimedia projects.
- Creative expression through the exploration of open-source resources.
- Enhanced digital artistry and multimedia production skills.

FBLD (Flip Blended Learning Design Template)

- Any One Unit from the above syllabus can be discussed by the faculty through online mode.
- Online mode can be SWAYAM MOOC Course or any other suggested by the UGC or Gujarat University.

MOOC Courses

Fundamentals of Internet, basic and advance features of HTML, Challenges of Internet technology

Text and Reference Books:

1. Synfig Studio (English version): 2D Animation ,Author AMC College ,Advanced Micro Systems Sdn Bhd
2. Synfig Studio 0.62.01 User Manual
3. <https://forums.synfig.org/t/advice-needed-for-a-novice/2456>
4. Using Synfig Studio as an Interactive Learning Media: A Study of Senior High School in Rural School
5. 1. Synfig User's Manual, The Synfig Group, Joking Reaper, 2016 • 423 Pages • 17.35 MB • English
<https://pdfroom.com/books/synfig-users-manual/4zW5nADr2Nq/download>

COMPUTER APPLICATIONS- Major

Online Resources

On-line resources to be used if available as reference material.

- <https://www.youtube.com/watch?v=Ti0suJBz30U>
- <https://www.youtube.com/watch?v=2P7-fmDzUUe>
- <https://www.youtube.com/hashtag/computergujaratimedium>
- https://www.youtube.com/watch?v=5B_Aok26LKC
- <https://www.youtube.com/watch?v=5MfstPzalvY>
- <https://www.youtube.com/watch?v=-oTQCysVTs>
- https://wiki.synfig.org/Doc:Animation_Basics

PRACTICAL - Synfig Studio

The list of exercise copies will be circulated separately at later stage.

COMPUTER APPLICATIONS- Major**NOTE:**

1. The norms including workload of any type of computer subjects (Major/Minor/Multi-Disciplinary/Soft Skill /Ability Enhancement course) in B.A./B.Com. shall be considered based on the below mentioned ratio of computer students per batch due to having technical subjects.
2. The duration of each Theory and Practical session is 55 minutes.
3. The maximum batch size for any computer related subject in any division of each semester for theory session is 60 students.
4. The batch size of practical session for any computer related subject in any semester is 15-20 students.
5. Any type of computer related subject can be offered in English / Gujarati or both Mediums.
6. The Theory and Practical sessions (workload) shall be applicable for English and Gujarati (both) medium separately.
7. The number of Minimum / Maximum of practical sessions shall be considered as per the framework and credits defined under the policy NEP 2020.
8. Minimum of 75% attendance is required to appear for the practical examination.
9. Minimum practical exercises must be completed by students before the examination.
10. The submission of computer journal for the respective subjects is mandatory for all the students of computer.
11. The certified journal by the competent authority of the college needs to be presented by students at the time of practical examination.
12. The submission of assignments and presentation is mandatory as per the norms laid down by the competent authority of Gujarat University under NEP 2020.
13. Students must appear in both the theory and practical examination of each term in the Internal and External examination.
14. The evaluation pattern for the weightage in Internal and External examination shall be considered as per the policy framed by the Gujarat University.

COMPUTER APPLICATIONS- MajorGUJARAT UNIVERSITY
COMPUTER SYLLABUS FOR **BCOM****SEMESTER - III****Title of Course: COMPUTER APPLICATIONS****Discipline specific course – Major /CORE SUBJECT****MAJOR COURSE CODE: DSC-C – 213-G****COURSE NAME: INTRODUCTION TO CRM AND OUTLOOK****Topics to be covered:** Basics of CRM and fundamental of Ms Outlook and use**OBJECTIVE:**

- Understand CRM basics and its relevance in creative industries.
- Master key features of Outlook for effective communication and organization.
- Explore integrating CRM and Outlook for streamlined project management.
- Apply CRM and Outlook tools to enhance client relationships and project workflows in computer.

UNIT – I INTRODUCTION OF CRM

Definition of CRM, Discuss about customer, Architecture of CRM, CRM technology components & Technology consideration, customer life style, customer interaction, Framework and Key features of E-CRM, Six “ES” in E-CRM, Components of E-CRM, Difference between CRM and eCRM, Sales Force Automations (SFA), Definition and need of SFA, barriers to successful SFA functionality, technological aspect of SFA, data synchronization, Flexibility and performance, reporting tools.

UNIT – II FUNCTIONALITY OF CALL CENTRE

Meaning of Call center, customer interaction, the functionality, technological implementation, what is ACD (Automatic Call Distribution), IVR (Interactive Voice Response), CTI (Computer Telephony Integration). Web enable call centers, Inbound and outbound call center, Virtual call center & its benefits, Telemarketing Call centers, Phone Call centers, automated intelligent call routing, logging & monitoring. Impact of CRM on Marketing Channels Meaning, how does the traditional distribution channel structure support customer relationship, emerging channel trends that impact CRM. Future of CRM, Case Study of CRM & E-CRM.

Unit –III E-mail Basics & Chatting (Messenger):

E-mail System, E-mail Protocols, E-mail addresses, Structure of an E-mail Message, Email clients & Servers Mailing list, E-mail Security, E-mail etiquette, Awareness of Telephonic/Video conference tools & technologies, Messenger (Yahoo, Skype, Gtalk), WWW and Web Browser - Current Trend of Internet, Definition - Internet, Intranet, Extranet, Evolution of Web, Basic elements of WWW, Search Engines & Search Criteria

COMPUTER APPLICATIONS- Major**UNIT –IV USING MS - OUTLOOK:**

Opening MS-Outlook, Managing E-mail account configuration, Organizing E-mails using folders, Composing, Sending, Reading, Deleting, Printing E-mail Messages, Use of Address Book, Creating distribution list (To-Do list), Managing Appointments, Meetings, Events, Working with Calendar, Schedule, Recurring appointments, Assigning Tasks, Sorting and Finding E-mails, How to forward and Recall messages, Sending and Receiving attachments, E-mail views, Signatures, Out of office assistant

Mode of Evaluation: Evaluation will be divided into two parts.

External: Annual Examination will be conducted by the Gujarat University of 50 Marks **(25 [50%] marks of theory and 25 [50%] marks of practical's)** (in theory 4 Descriptive Questions and 1 MCQ)

Internal: Internal Evaluation will be decided by the University from time to time and instructed to colleges. The following can be considered as the model evaluation system.

[Out of 50 Marks, 30 Marks will be awarded on the basis of Internal Evaluation Mechanism (E.g., Mid Term Examination, CIE). For 10 Marks the following Assessment tools can be used. And 5 Marks will be given on the basis attendance.]

Assessment Tools:

Following Assignments (Anyone) can be given to the students for the purpose of internal assessment.

- Introduction to CRM and its use
- Basic concepts of email and internet
- Basics of outlook
- create contact
- configure email.
- use of calendar
- create task.

Course Outcome

- Proficiency in utilizing CRM systems for managing client interactions.
- Mastery of Outlook tools for efficient communication and task management.
- Integration skills to optimize workflow between CRM and Outlook.
- Enhanced project management abilities for creative endeavors.

FBLD (Flip Blended Learning Design Template)

- Any One Unit from the above syllabus can be discussed by the faculty through online mode.
- Online mode can be SWAYAM MOOC Course or any other suggested by the UGC or Gujarat University.

MOOC Courses

Fundamentals of cyber security, multimedia, graphics basic and features of outlook, email and CRM

COMPUTER APPLICATIONS- Major**REFERENCES:**

- CRM at the speed of light by Paul Greenberg, YMH 2nd edition. 2. Customer Relationship Management by V Kumar, Werner J Reinartz, WILRY India edition. 3. Customer Relationship Management by Kristin Anderson and Carol Kerr, TM.
- CRM Concepts and cases Alok Kumar Rai PHI, ISBN -978-81-203-4695--6
- CRM Emerging Concepts, Tools and Applications Tata McGraw-Hill Education ISBN-13:978-07--43504-9
- Microsoft Outlook 2016 Step by Step, Joan Lambert, PUBLISHED BY Microsoft Press A division of Microsoft Corporation
- eBook: Outlook 2016 Tips & Tricks,
- Microsoft Outlook for Dummies: Dyszel

PRACTICAL EXERCISES OF MS-OUTLOOK**Exercise: 1**

- a) Add at least ten contacts in the address book.
- b) Prepare two distribution lists names friends and family.
- c) Add names of the friends added in the first step in friends Distribution list and names of the family members in the Family distribution list.

Exercise: 2

Suppose you are celebrating your birthday. Prepare an invitation message and send it to friends and family members using the distribution list created in exercise one.

Exercise: 3

Your father has asked you to pay the utility (telephone bill, Electricity bill, Gas bill etc.) before the due date. Set reminder for the task using MS Outlook.

Exercise: 4

Assume that you have opened an recurring account in post office. You are supposed to pay Rs.1000 on 5th of every month. Set a recurrence reminder using MS Outlook.

Exercise: 5

Assume that you are appearing for an entrance examination which contains questions on logical ability and verbal skills. You have only a week for exam preparation. Prepare a task list for this important task with red color. Open outlook every day and edit the status of tasks.

COMPUTER APPLICATIONS- Major

Exercise 6

Assume that you have fixed a meeting with your employees. Set a schedule and assign (Distribute) to all concern employees of your company.

Exercise 7

To customize the different signature of your mail account and send it to your concerns.

Exercise 8

Suppose you are having to documents and one image file in your local hard drive. Attach all these three files and send it to your family member.

Exercise 9

Perform to upload / download and share files using google Drive to upload some files to your google drive and share with your colleagues.

Exercise 10

Set appointment using Google Calendar

Suppose you need to arrange a meeting in Office for some agenda. Set and send a reminder to all your concern colleagues for attending this meeting using Google Calendar.

COMPUTER APPLICATIONS- Major**NOTE:**

1. The norms including workload of any type of computer subjects (Major/Minor/Multi-Disciplinary/Soft Skill /Ability Enhancement course) in B.A./B.Com. shall be considered based on the below mentioned ratio of computer students per batch due to having technical subjects.
2. The duration of each Theory and Practical session is 55 minutes.
3. The maximum batch size for any computer related subject in any division of each semester for theory session is 60 students.
4. The batch size of practical session for any computer related subject in any semester is 15-20 students.
5. Any type of computer related subject can be offered in English / Gujarati or both Mediums.
6. The Theory and Practical sessions (workload) shall be applicable for English and Gujarati (both) medium separately.
7. The number of Minimum / Maximum of practical sessions shall be considered as per the framework and credits defined under the policy NEP 2020.
8. Minimum of 75% attendance is required to appear for the practical examination.
9. Minimum practical exercises must be completed by students before the examination.
10. The submission of computer journal for the respective subjects is mandatory for all the students of computer.
11. The certified journal by the competent authority of the college needs to be presented by students at the time of practical examination.
12. The submission of assignments and presentation is mandatory as per the norms laid down by the competent authority of Gujarat University under NEP 2020.
13. Students must appear in both the theory and practical examination of each term in the Internal and External examination.
14. The evaluation pattern for the weightage in Internal and External examination shall be considered as per the policy framed by the Gujarat University.