

Syllabus of BA/B.ScHonours (FYUGP) in Computer Applications

Implementation from 2026-27, 2027-28 and 2028-29

Semester –I

S. No	Course Type	Course Code	Course Title	Credits	Marks				Total Marks
					Theory		Practical/Tutorial		
					Mid Sem	End Exam	Assesment	Exam	
1	MAJOR (Theory)	UMJCATH-101	Fundamentals of Computers	4	20	80	-	-	100
2	MAJOR (Practical)	UMJCAPR-111	Office Tools	2	-	-	25	25	50
3	Minor (Theory)	UMICATH-121	Fundamentals of Computers	4	20	80	-	-	100
4	Minor (Practical)	UMICAPR-131	Office Tools	2	-	-	25	25	50
5	MD	UMDCATH-141	Understanding Computers	3	15	60			75
6	SEC	USECAPR-151	Web Technology-I	3	-	-	35	40	75

Semester –II

S. No	Course Type	Course Code	Course Title	Credits	Marks				Total Marks
					Theory		Practical/Tutorial		
					Mid Sem	End Exam	Assesment	Exam	
1	MAJOR (Theory)	UMJCATH-201	Fundamentals of Internet	4	20	80	-	-	100
2	MAJOR (Practical)	UMJCAPR-211	HTML Programming	2	-	-	25	25	50
3	Minor (Theory)	UMICATH-221	Fundamentals of Internet	4	20	80	-	-	100
4	Minor (Practical)	UMICAPR-231	HTML Programming	2	-	-	25	25	50
5	MD	UMDCATH-241	Understanding Internet	3	15	60			75
6	SEC	USECAPR-251	Web Technology-II	3	-	-	35	40	75

Syllabus of BA/B.Sc Honours (FYUGP) in Computer Applications
COMPUTER APPLICATION (ARTS/SCIENCE)

FIRST SEMESTER

Course Title: Computer Fundamentals

Course Type: MAJOR

Course Code: UMJCATH-101

Course Credits: (04)

Internal Assessment: 20 Marks (1.5 hours)

End Semester Examination: 80 Marks (3 hours)

Total Marks: 100

Course Objectives

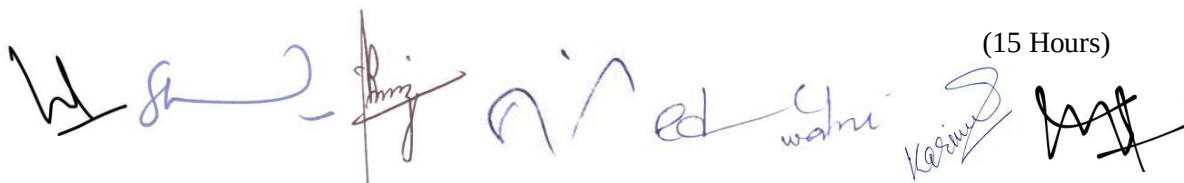
1. To introduce students to the fundamental concepts of computers and their applications in various fields.
2. To develop an understanding of input/output devices, memory, and software systems.
3. To familiarize students with operating systems and office automation tools.
4. To build basic skills for practical usage of MS Office and system operations.
5. To enable students to understand number systems and data representation techniques.

Learning Outcomes

1. Define and recall basic computer terminology, components, and functions.
2. Explain the working of computer systems, input/output devices, and operating systems.
3. Use MS Word, Excel, and PowerPoint for creating documents, spreadsheets, and presentations.
4. Differentiate between types of computers, software, memory units, and number systems.
5. Assess the performance and suitability of different computing tools and technologies.
6. Develop structured documents, data sheets, and presentations using appropriate software tools.

UNIT I

Computer and its Characteristics, Applications of Computer, Digital and Analog Computers, Generations of Computers, Block Diagram of a Computer, Types of Computers (Super, Mainframe, Mini, Micro). Memory hierarchy: Registers, Cache, Primary Memory (RAM, ROM, PROM, EPROM, EEPROM), Secondary Storage Devices (Hard Disk, Optical disk, blue ray disk, pen drives). Storage Units: Bit, Byte, KB, MB, GB.

 (15 Hours)

Syllabus of BA/B.Sc Honours (FYUGP) in Computer Applications

UNIT II

Input Devices: Keyboard, Mouse, Trackball, Joystick, Scanner, Barcode Reader, OCR, OMR, MICR, Touch Screen, Touchpad, Stylus/Digital Pen, Biometric Devices (Fingerprint and Iris Scanner), Web Camera, Microphone, Smart Card Reader, RFID Reader, NFC Devices, GPS Receiver, IoT Sensor-Based Input Devices. **Output Devices:** Monitor (CRT, LCD, LED), Printers (Impact and Non-impact), Plotters, Projectors, Speakers. Headphones, Smart Displays. I/O Interfaces and Ports: USB, HDMI, Serial and Parallel ports. Data Representation and Multimedia Devices.

(15 Hours)

UNIT III

Software and its Types: System Software, Application Software, Firmware. Operating System: Functions and Types (Single user, Multi-user, Multitasking, Batch, Real-Time). Computer Languages: Machine, Assembly, High-Level Languages. Translators: Compiler, Interpreter, Assembler, Linker, Loader. Computer Virus: Types, Prevention, Antivirus Software. Overview of Artificial Intelligence : AI Applications in Daily Life ,Machine Learning Generative AI ,Chatbots and Virtual Assistants (e.g., ChatGPT, Google Gemini, Microsoft Copilot) , Ethical Use of AI, Responsible AI and Limitations of AI.

s(15 Hours)

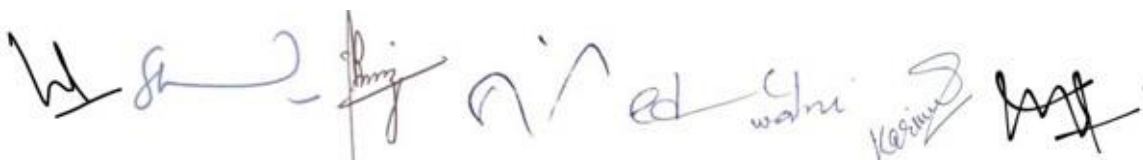
UNIT IV

Number System: Decimal Number System, Binary Number System, Octal Number System, Hexadecimal Number System. Conversion from one number system to another. Floating, Point Representation. Arithmetic operations in binary (Addition, Subtraction, Multiplication, Division). Complement methods (1's Complement, 2's Complement, r and r-1 Complement).

(15 Hours)

References:

1. P.K Sinha & Priti Sinha, Computer Fundamentals, BPB Publications.
2. Alexix Leon, Mathewes Leon, Fundamentals of Information Technology,
3. Suresh K. Basandra, Computer Systems Today, Galgotia Publications.
4. V. Rajaraman, Fundamentals of Computers, EEE.
5. Peter Norton, Introduction to Computers, Tata Mcgraw Hill
6. Joyce Coax, Joan Preppernau, Steve Lambert and Curtis Frye, 2007 Microsoft Office System step by step, Microsoft Press.
7. R.K. Taxali, PC Software for Windows



Syllabus of BA/B.Sc Honours (FYUGP) in Computer Applications Testing and Evaluation:

Examination Pattern shall be as under:

1. 20 marks shall be earmarked for Internal Assessment (05 Marks for Attendance and 15 Marks for Assessment Test).

2. Scheme for award of marks for attendance:

- | | | |
|---------------------------|---|----------|
| a. Attendance of 75-80 % | = | 01 Marks |
| b. Attendance of 81-85 % | = | 02 Marks |
| c. Attendance of 86-90 % | = | 03 Marks |
| d. Attendance of 91-95 % | = | 04 Marks |
| e. Attendance of 96-100 % | = | 05 Marks |

3. Pattern of Internal Assessment Test of 15 marks:

a. The test shall comprise of two sections:

i. SECTION-A (Short Answer Type questions)

1. Attempt any five Questions of 02 Marks each out of eight Questions. **(5x2=10 Marks)**

ii. SECTION-B(Long Answer Type questions)

1. Attempt any one Question of 05 Marks out of two Questions. **(1x5=5 Marks)**

4. Pattern of External End-Semester Examination of 80 marks:

a. The Paper shall comprise of three Sections:

i. SECTION-A(Very short Answer Type Questions)

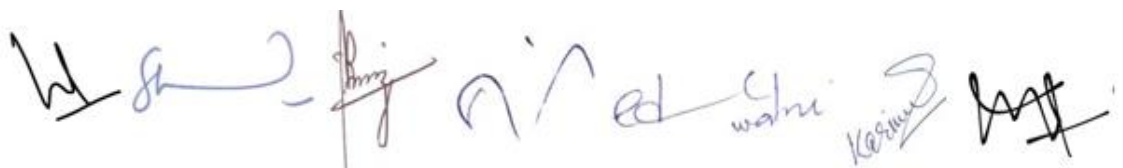
1. 06 questions of 01 mark each. **6x1=6 marks**
2. 05 questions of 02 mark each. **5x2=10 marks**

ii. SECTION-B(Short Answer Type Questions)

1. Total 08 questions (02 Questions from each unit) of 04 marks each.
2. Attempt any one Question from each Unit. **4x4=16 marks**

iii. SECTION-C (Long Answer Type Questions)

1. Total 08 questions (02 Questions from each unit) of 12 marks each.
2. Attempt any one Question from each Unit. **4x12=48 marks**



Syllabus of BA/B.Sc Honours (FYUGP) in Computer Applications
COMPUTER APPLICATION (ARTS/SCIENCE)

FIRST SEMESTER

Course Title: OFFICE TOOLS

Course Type: MAJOR

Course Code: UMJCAPR-111

Course Credits: (02)

Internal Practical Examination: 25 Marks

External Practical Examination: 25 Marks

Total Marks: 50

Course Objectives

1. To develop practical skills in MS Word, Excel, and PowerPoint.
2. To enable students to create, edit, and format documents and reports.
3. To introduce data handling, formulas, and charting techniques in Excel.
4. To build the ability to design effective presentations using PowerPoint.
5. To provide hands-on experience with Windows operating system.
6. To develop skills in file and folder management.
7. To familiarize students with DOS commands and system utilities.
8. To enable basic system maintenance and troubleshooting skills.

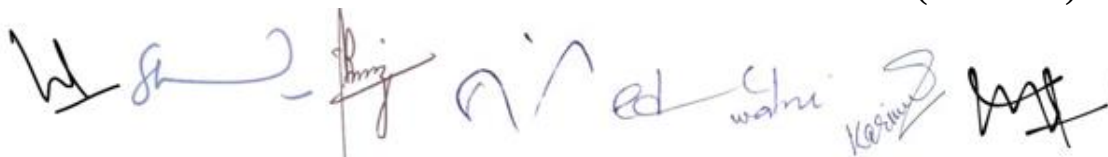
Learning Outcomes

1. Identify features and components of MS Word, Excel, and PowerPoint.
2. Explain formatting tools, functions, and presentation elements.
3. Create formatted documents, spreadsheets with formulas, and presentations.
4. Compare different tools and functions within MS Office applications.
5. Assess the quality and effectiveness of documents, spreadsheets, and presentations.
6. Design professional documents, data sheets, and presentations for real-world tasks.

UNIT I

MS Word: Create, edit and format documents, working with fonts, paragraphs, page setup, Tables, images, WordArt and shapes, Mail Merge. **MS Excel:** Worksheets and workbooks, Formulas and functions (SUM, AVERAGE, IF), Charts and graphs, Data sorting and filtering. **MS PowerPoint:** Creating presentations, Slide layouts and design, Animations and transitions, Slide show setup.

(30 Hours)



Syllabus of BA/B.Sc Honours (FYUGP) in Computer Applications

UNIT II

Introduction to Windows Environment :Desktop, Taskbar, Start Menu and File Explorer ,File and Folder Management (Create, Copy, Move, Rename, Delete, Compress and Extract Files) Search, Sort, Filter and Organize Files and Folders, File Properties, Hidden Files and File Permissions, Control Panel and Windows Settings ,Installing, Updating and Uninstalling Software Managing User Accounts and Passwords , Managing Storage Devices (USB Drives, External Hard Disks and SSDs) Basic Troubleshooting: Disk cleanup and defragmentation, Virus scanning, System utilities usage.

(30 Hours)

Examination Pattern shall be as under:

1. 25 marks shall be earmarked for Internal Practical Examination

- a. 05 Marks for Attendance.
- b. 10 Marks for Practical Test.
- c. 05 Marks for Project Report.
- d. 05 Marks for Viva/ Presentation.

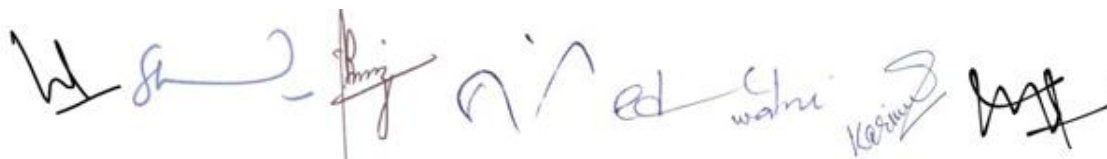
2. 25 marks shall be earmarked for External Practical Examination

- a. 10 Marks for Practical Test.
- b. 05 Marks for Project Report.
- c. 05 Marks for Implementation.
- d. 05 Marks for Viva/ Presentation.

(External Examiner shall be appointed by the principal of the College).

3. Scheme for award of marks for attendance:

- | | | |
|---------------------------|---|----------|
| a. Attendance of 75-80 % | = | 01 Marks |
| b. Attendance of 81-85 % | = | 02 Marks |
| c. Attendance of 86-90 % | = | 03 Marks |
| d. Attendance of 91-95 % | = | 04 Marks |
| e. Attendance of 96-100 % | = | 05 Marks |



Syllabus of BA/B.Sc Honours (FYUGP) in Computer Applications
COMPUTER APPLICATION (ARTS/SCIENCE)

FIRST SEMESTER

Course Title: Computer Fundamentals

Course Type: MINOR

Course Code: UMICATH-121

Course Credits: (04)

Internal Assessment: 20 Marks (1.5 hours)

End Semester Examination: 80 Marks (3 hours)

Total Marks: 100

Course Objectives

1. To introduce students to the fundamental concepts of computers and their applications in various fields.
2. To develop an understanding of input/output devices, memory, and software systems.
3. To familiarize students with operating systems and office automation tools.
4. To build basic skills for practical usage of MS Office and system operations.
5. To enable students to understand number systems and data representation techniques.

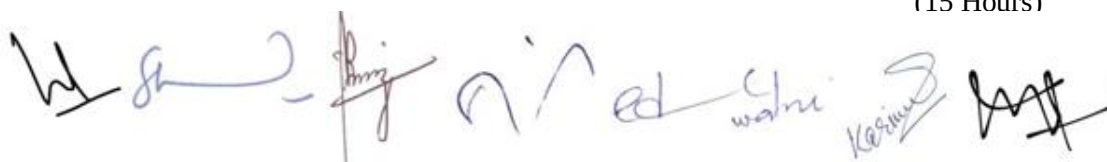
Learning Outcomes

1. Define and recall basic computer terminology, components, and functions.
2. Explain the working of computer systems, input/output devices, and operating systems.
3. Use MS Word, Excel, and PowerPoint for creating documents, spreadsheets, and presentations.
4. Differentiate between types of computers, software, memory units, and number systems.
5. Assess the performance and suitability of different computing tools and technologies.
6. Develop structured documents, data sheets, and presentations using appropriate software tools.

UNIT I

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(15 Hours)



Syllabus of BA/B.Sc Honours (FYUGP) in Computer Applications

UNIT II

Input Devices: Keyboard, Mouse, Trackball, Joystick, Scanner, Barcode Reader, OCR, OMR, MICR, Touch Screen, Touchpad, Stylus/Digital Pen, Biometric Devices (Fingerprint and Iris Scanner), Web Camera, Microphone, Smart Card Reader, RFID Reader, NFC Devices, GPS Receiver, IoT Sensor-Based Input Devices. **Output Devices:** Monitor (CRT, LCD, LED), Printers (Impact and Non-impact), Plotters, Projectors, Speakers. Headphones, Smart Displays. I/O Interfaces and Ports: USB, HDMI, Serial and Parallel ports. Data Representation and Multimedia Devices.

(15 Hours)

UNIT III

Software and its Types: System Software, Application Software, Firmware. Operating System: Functions and Types (Single user, Multi-user, Multitasking, Batch, Real-Time). Computer Languages: Machine, Assembly, High-Level Languages. Translators: Compiler, Interpreter, Assembler, Linker, Loader. Computer Virus: Types, Prevention, Antivirus Software. Overview of Artificial Intelligence : AI Applications in Daily Life ,Machine Learning Generative AI ,Chatbots and Virtual Assistants (e.g., ChatGPT, Google Gemini, Microsoft Copilot) , Ethical Use of AI, Responsible AI and Limitations of AI.

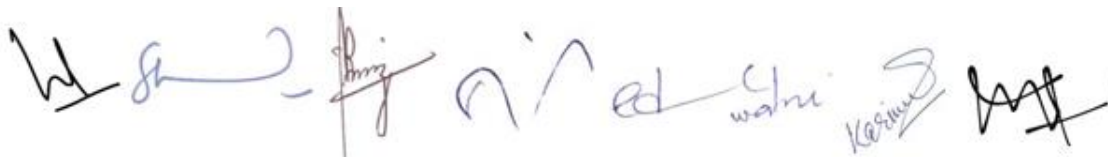
(15 Hours)

UNIT IV

Number System: Decimal Number System, Binary Number System, Octal Number System, Hexadecimal Number System. Conversion from one number system to another. Floating Point Representation. Arithmetic operations in binary (Addition, Subtraction, Multiplication, Division). Complement methods (1's Complement, 2's Complement, r and r-1 Complement).

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7. R.K. Taxali, PC Software for Windows



Syllabus of BA/B.Sc Honours (FYUGP) in Computer Applications Testing and Evaluation:

Examination Pattern shall be as under:

1. 20 marks shall be earmarked for Internal Assessment (05 Marks for Attendance and 15 Marks for Assessment Test).

2. Scheme for award of marks for attendance:

- | | | |
|---------------------------|---|----------|
| a. Attendance of 75-80 % | = | 01 Marks |
| b. Attendance of 81-85 % | = | 02 Marks |
| c. Attendance of 86-90 % | = | 03 Marks |
| d. Attendance of 91-95 % | = | 04 Marks |
| e. Attendance of 96-100 % | = | 05 Marks |

3. Pattern of Internal Assessment Test of 15 marks:

a. The test shall comprise of two sections:

i. SECTION-A (Short Answer Type questions)

1. Attempt any five Questions of 02 Marks each out of eight Questions. **(5x2=10 Marks)**

ii. SECTION-B(Long Answer Type questions)

1. Attempt any one Question of 05 Marks out of two Questions. **(1x5=5 Marks)**

4. Pattern of External End-Semester Examination of 80 marks:

a. The Paper shall comprise of three Sections:

i. SECTION-A(Very short Answer Type Questions)

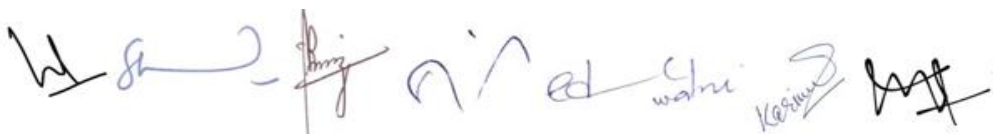
1. 06 questions of 01 mark each. **6x1=6 marks**
2. 05 questions of 02 mark each. **5x2=10 marks**

ii. SECTION-B(Short Answer Type Questions)

1. Total 08 questions (02 Questions from each unit) of 04 marks each.
2. Attempt any one Question from each Unit. **4x4=16 marks**

iii. SECTION-C (Long Answer Type Questions)

1. Total 08 questions (02 Questions from each unit) of 12 marks each.
2. Attempt any one Question from each Unit. **4x12=48 marks**



Syllabus of BA/B.Sc Honours (FYUGP) in Computer Applications
COMPUTER APPLICATION (ARTS/SCIENCE)

FIRST SEMESTER

Course Title: OFFICE TOOLS

Course Type: MINOR

Course Code: UMICAPR-131

Course Credits: (02)

Internal Practical Examination: 25 Marks

External Practical Examination: 25 Marks

Total Marks: 50

Course Objectives

1. To develop practical skills in MS Word, Excel, and PowerPoint.
2. To enable students to create, edit, and format documents and reports.
3. To introduce data handling, formulas, and charting techniques in Excel.
4. To build the ability to design effective presentations using PowerPoint.
5. To provide hands-on experience with Windows operating system.
6. To develop skills in file and folder management.
7. To familiarize students with DOS commands and system utilities.
8. To enable basic system maintenance and troubleshooting skills.

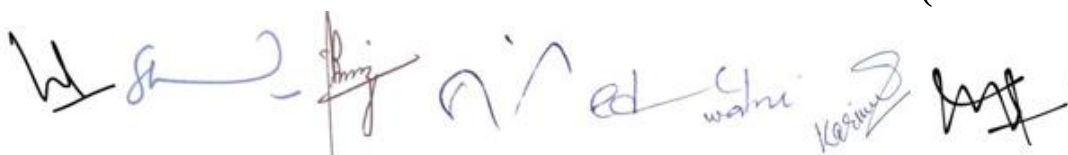
Learning Outcomes

1. Identify features and components of MS Word, Excel, and PowerPoint.
2. Explain formatting tools, functions, and presentation elements.
3. Create formatted documents, spreadsheets with formulas, and presentations.
4. Compare different tools and functions within MS Office applications.
5. Assess the quality and effectiveness of documents, spreadsheets, and presentations.
6. Design professional documents, data sheets, and presentations for real-world tasks.

UNIT I

MS Word: Create, edit and format documents, working with fonts, paragraphs, page setup, Tables, images, WordArt and shapes, Mail Merge. **MS Excel:** Worksheets and workbooks, Formulas and functions (SUM, AVERAGE, IF), Charts and graphs, Data sorting and filtering. **MS PowerPoint:** Creating presentations, Slide layouts and design, Animations and transitions, Slide show setup.

(30 Hours)



Syllabus of BA/B.Sc Honours (FYUGP) in Computer Applications

UNIT II

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(30 Hours)

Examination Pattern shall be as under:

4. 25 marks shall be earmarked for Internal Practical Examination

- a. 05 Marks for Attendance.
- b. 10 Marks for Practical Test.
- c. 05 Marks for Project Report.
- d. 05 Marks for Viva/ Presentation.

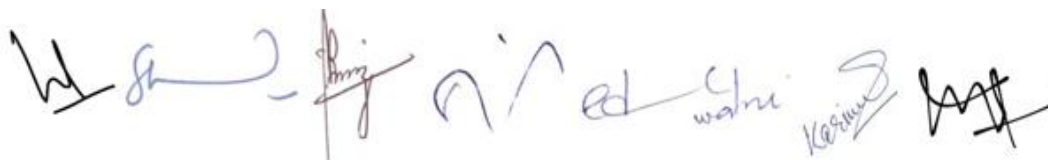
5. 25 marks shall be earmarked for External Practical Examination

- a. 10 Marks for Practical Test.
- b. 05 Marks for Project Report.
- c. 05 Marks for Implementation.
- d. 05 Marks for Viva/ Presentation.

(External Examiner shall be appointed by the principal of the College).

6. Scheme for award of marks for attendance:

- | | | |
|---------------------------|---|----------|
| a. Attendance of 75-80 % | = | 01 Marks |
| b. Attendance of 81-85 % | = | 02 Marks |
| c. Attendance of 86-90 % | = | 03 Marks |
| d. Attendance of 91-95 % | = | 04 Marks |
| e. Attendance of 96-100 % | = | 05 Marks |



Syllabus of BA/B.Sc Honours (FYUGP) in Computer Applications
COMPUTER APPLICATION (ARTS/SCIENCE)

FIRST SEMESTER

Course Title: Understanding Computers

Course Type: MULTIDISCIPLINARY

Course Code: UMDCATH-141

Course Credits: (03)

Internal Assessment: 15 Marks (1.5 hours)

End Semester Examination: 60 Marks (2 $\frac{1}{2}$ hours)

Total Marks: 75

Course Objectives

1. To introduce students to the fundamental concepts of computers and their applications in various fields.
2. To develop an understanding of input/output devices, memory, and software systems.
3. To familiarize students with operating systems and office automation tools.
4. To build basic skills for practical usage of MS Office and system operations.
5. To enable students to understand number systems and data representation techniques.

Learning Outcomes

1. Define and recall basic computer terminology, components, and functions.
2. Explain the working of computer systems, input/output devices, and operating systems.
3. Use MS Word, Excel, and PowerPoint for creating documents, spreadsheets, and presentations.
4. Differentiate between types of computers, software, memory units, and number systems.
5. Assess the performance and suitability of different computing tools and technologies.
6. Develop structured documents, data sheets, and presentations using appropriate software tools.

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15 Hours)

Syllabus of BA/B.Sc Honours (FYUGP) in Computer Applications

UNIT II

Input Devices: Keyboard, Mouse, Trackball, Joystick, Scanner, Barcode Reader, OCR, OMR, MICR, Touch Screen, Touchpad, Stylus/Digital Pen, Biometric Devices (Fingerprint and Iris Scanner), Web Camera, Microphone, Smart Card Reader, RFID Reader, NFC Devices, GPS Receiver, IoT Sensor-Based Input Devices. **Output Devices:** Monitor, Plotters, Projectors, Speakers. Headphones, Smart Displays. I/O Interfaces and Ports: USB, HDMI, Serial and Parallel ports. Data Representation and Multimedia Devices.

(15 Hours)

UNIT III

Software and its Types: System Software, Application Software, Firmware. Operating System: Functions and Types (Single user, Multi-user, Multitasking, Batch, Real-Time). Computer Languages: Machine, Assembly, High-Level Languages. Translators: Compiler, Interpreter, Assembler, Linker, Loader. Computer Virus: Types, Prevention, Antivirus Software. Overview of Artificial Intelligence : AI Applications in Daily Life ,Machine Learning Generative AI ,Chatbots and Virtual Assistants (e.g., ChatGPT, Google Gemini, Microsoft Copilot) , Ethical Use of AI, Responsible AI and Limitations of AI.

(15 Hours)

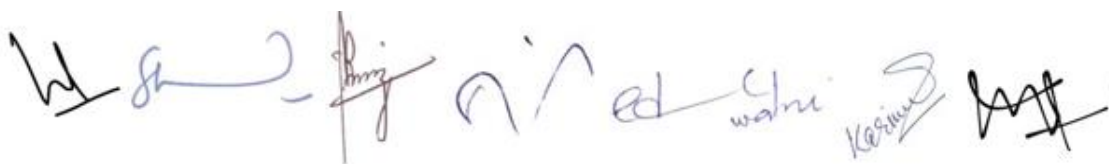
UNIT IV

Number System: Decimal Number System, Binary Number System, Octal Number System, Hexadecimal Number System. Conversion from one number system to another. Floating, Point Representation. Arithmetic operations in binary (Addition, Subtraction, Multiplication, Division). Complement methods (1's Complement, 2's Complement, r and r-1 Complement).

(15 Hours)

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7. R.K. Taxali, PC Software for Windows



Syllabus of BA/B.Sc Honours (FYUGP) in Computer Applications Testing and Evaluation:

Examination Pattern shall be as under:

1. 15 marks shall be earmarked for Internal Assessment (05 Marks for Attendance and 10 Marks for Assessment Test).

2. Scheme for award of marks for attendance:

- | | | |
|---------------------------|---|----------|
| a. Attendance of 75-80 % | = | 01 Marks |
| b. Attendance of 81-85 % | = | 02 Marks |
| c. Attendance of 86-90 % | = | 03 Marks |
| d. Attendance of 91-95 % | = | 04 Marks |
| e. Attendance of 96-100 % | = | 05 Marks |

3. Pattern of Internal Assessment Test of 10 marks:

a. The test shall comprise of two sections:

i. SECTION-A (Short Answer Type questions)

1. Attempt any four Questions of $1\frac{1}{2}$ Marks each out of Six Questions. **($4 \times 1\frac{1}{2} = 06$ Marks)**

ii. SECTION-B (Long Answer Type questions)

1. Attempt any one Question of 04 Marks out of two Questions. **($1 \times 4 = 4$ Marks)**

4. Pattern of External End-Semester Examination of 60 marks:

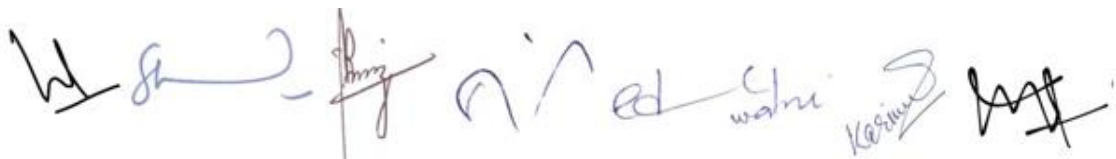
a. The Paper shall comprise of two Sections:

i. SECTION-A (Short Answer Type Questions)

1. 04 questions having one Question from each Unit of 03 marks. **$4 \times 3 = 12$ marks**

ii. SECTION-B (Long Answer Type Questions)

1. Total 08 questions having 02 Questions from each unit of 12 marks.
2. Attempt any one Question from each Unit. **$4 \times 12 = 48$ marks**



Syllabus of BA/B.Sc Honours (FYUGP) in Computer Applications
COMPUTER APPLICATION (ARTS/SCIENCE)

SECOND SEMESTER

Course Title: Fundamentals of Internet

Course Type: MAJOR

Course Code: UMJCATH-201

Course Credits: (04)

Internal Assessment: 20 Marks (1.5 hours)

End Semester Examination: 80 Marks (3 hours)

Total Marks: 100

Course Objectives

1. To develop understanding of computer networks and Internet fundamentals.
2. To explain Internet structure, evolution, and web technologies.
3. To introduce Internet protocols and addressing mechanisms.
4. To build foundational knowledge of HTML for web development.

Learning Outcomes

1. Describe networking concepts and Internet architecture.
2. Explain web technologies and Internet services.
3. Analyze different Internet protocols and IP addressing.
4. Create structured web pages using HTML fundamentals.

UNIT I

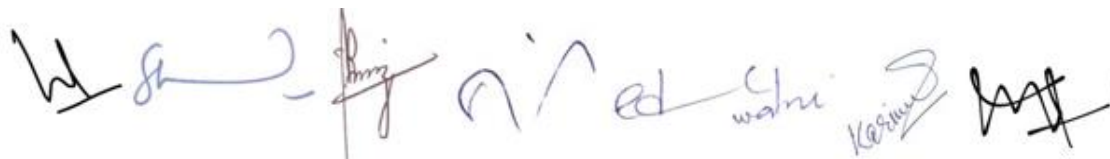
Network: Definition, Goals, Advantages and Disadvantages, Categories of Networks, Network Topologies, Data Communication and its Components (Sender, Receiver, Protocol, Message, Medium), Transmission Modes (Simplex, Half Duplex, Full Duplex), Transmission Media: Co-axial, Twisted Pair, Fiber Optics, Radio Waves, Microwaves, Satellites, Networking Devices: Modem, Switch, Hub, Router, Bridge, Gateway.

(15 Hours)

UNIT II

Introduction to Internet, Definition and characteristics, Basic architecture of Internet, Client-server model, History and Evolution, Growth of Internet and WWW, Modern Internet trends, Applications of Internet, E-commerce and E-governance, Education (E-learning platforms), Social Networking, Advantages and Disadvantages, Web Terminologies, Web Browser (Types and functions), Web Address , URL structure, DNS (Domain Name System), Search Engines.

(15 Hours)



Syllabus of BA/B.Sc Honours (FYUGP) in Computer Applications

UNIT III

IP Addressing, Definition and purpose, IPv4 structure (32-bit addressing), IPv6 structure (128-bit addressing), Differences between IPv4 and IPv6, Classes of IP Address (Class A, B, C, D, E), Public vs Private IP, Protocols and their Functions, HTTP & HTTPS (Web communication), FTP, SMTP, POP3, Internet Connection Concepts: Dial-up, Broadband, Wireless, Basics of data transmission in Internet.

(15 Hours)

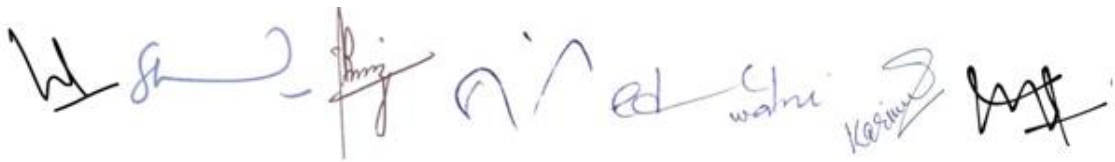
UNIT IV

Introduction to HTML, Definition and features, Role in web development, Structure of HTML Document, HTML, HEAD, BODY tags, Basic syntax, HTML Tags, Basic Tags (Heading, Paragraph, Break, Horizontal line), Formatting Tags (Bold, Italic, Underline, Font), HTML Lists: Ordered List, Unordered List, Definition List, HTML Elements, Images and Image Mapping, Div and Span (Grouping elements).

(15 Hours)

References:

1. Andrew S. Tanenbaum, Computer Networks, Pearson
2. William Stallings, Data and Computer Communication, Pearson
3. Forouzan, Data Communication and Networking, McGraw Hill
4. Douglas E. Comer, The Internet Book, Prentice Hall

A series of handwritten signatures and initials in blue ink, including 'H', 'S', 'P', 'A', 'V', 'K', and 'M'.

Syllabus of BA/B.Sc Honours (FYUGP) in Computer Applications Testing and Evaluation:

Examination Pattern shall be as under:

1. 20 marks shall be earmarked for Internal Assessment (05 Marks for Attendance and 15 Marks for Assessment Test).

2. Scheme for award of marks for attendance:

- | | | |
|---------------------------|---|----------|
| a. Attendance of 75-80 % | = | 01 Marks |
| b. Attendance of 81-85 % | = | 02 Marks |
| c. Attendance of 86-90 % | = | 03 Marks |
| d. Attendance of 91-95 % | = | 04 Marks |
| e. Attendance of 96-100 % | = | 05 Marks |

3. Pattern of Internal Assessment Test of 15 marks:

a. The test shall comprise of two sections:

i. SECTION-A (Short Answer Type questions)

1. Attempt any five Questions of 02 Marks each out of eight Questions. **(5x2=10 Marks)**

ii. SECTION-B(Long Answer Type questions)

1. Attempt any one Question of 05 Marks out of two Questions. **(1x5=5 Marks)**

4. Pattern of External End-Semester Examination of 80 marks:

a. The Paper shall comprise of three Sections:

i. SECTION-A(Very short Answer Type Questions)

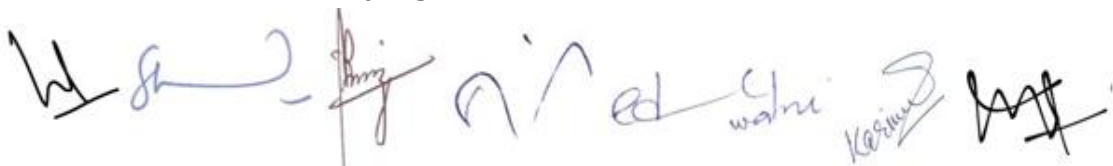
1. 06 questions of 01 mark each. **6x1=6 marks**
2. 05 questions of 02 mark each. **5x2=10 marks**

ii. SECTION-B(Short Answer Type Questions)

1. Total 08 questions (02 Questions from each unit) of 04 marks each.
2. Attempt any one Question from each Unit. **4x4=16 marks**

iii. SECTION-C (Long Answer Type Questions)

1. Total 08 questions (02 Questions from each unit) of 12 marks each.
2. Attempt any one Question from each Unit. **4x12=48 marks**



Syllabus of BA/B.Sc Honours (FYUGP) in Computer Applications
COMPUTER APPLICATION (ARTS/SCIENCE)

FIRST SEMESTER

Course Title: HTML PROGRAMMING

Course Type: MAJOR

Course Code: UMJCAPR-211

Course Credits: (02)

Internal Practical Examination: 25 Marks

External Practical Examination: 25 Marks

Total Marks: 50

Course Objectives

1. To develop hands-on skills in HTML web page design.
2. To create structured layouts using tables and frames.
3. To design interactive web forms for user input.

Learning Outcomes

1. Design web pages using HTML tables and layouts.
2. Implement frames and embed content using iframes.
3. Create interactive forms for data collection.
4. Apply basic validation and user interface design principles.

UNIT I

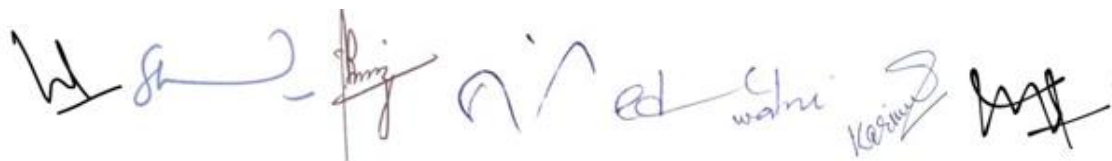
HTML Tables, Table creation (TABLE, TR, TH, TD), Table attributes (Border, Bgcolor, Align), Cell spacing and padding, Rowspan and Colspan, Frames and Layouts, Frame and Frameset, Frame attributes, Iframe and embedding external content, create timetable using tables, Design webpage layout using frames,

(30 Hours)

UNIT II

HTML Forms, Form structure and attributes (Action, Method, Name), Form Controls, Textbox, Password field, Checkboxes, Radio buttons, Select (Dropdown), File upload, Hidden fields, Buttons (Submit, Reset), Basic Form Design, User-friendly interface, Simple validation concepts

(30 Hours)



**Syllabus of BA/B.Sc Honours (FYUGP) in Computer Applications
Examination Pattern shall be as under:**

1. 25 marks shall be earmarked for Internal Practical Examination

- a. 05 Marks for Attendance.
- b. 10 Marks for Practical Test.
- c. 05 Marks for Project Report.
- d. 05 Marks for Viva/ Presentation.

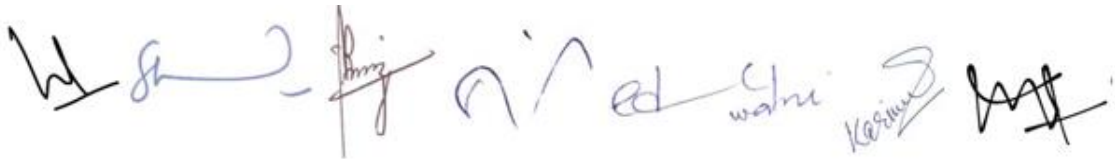
2. 25 marks shall be earmarked for External Practical Examination

- a. 10 Marks for Practical Test.
- b. 05 Marks for Project Report.
- c. 05 Marks for Implementation.
- d. 05 Marks for Viva/ Presentation.

(External Examiner shall be appointed by the principal of the College).

3. Scheme for award of marks for attendance:

- | | | |
|---------------------------|---|----------|
| a. Attendance of 75-80 % | = | 01 Marks |
| b. Attendance of 81-85 % | = | 02 Marks |
| c. Attendance of 86-90 % | = | 03 Marks |
| d. Attendance of 91-95 % | = | 04 Marks |
| e. Attendance of 96-100 % | = | 05 Marks |



Syllabus of BA/B.ScHonours (FYUGP) in Computer Applications
COMPUTER APPLICATION (ARTS/SCIENCE)

SECOND SEMESTER

Course Title: Fundamentals of Internet

Course Type: MINOR

Course Code: UMICATH-221

Course Credits: (04)

Internal Assessment: 20 Marks (1.5 hours)

End Semester Examination: 80 Marks (3 hours)

Total Marks: 100

Course Objectives

1. To develop understanding of computer networks and Internet fundamentals.
2. To explain Internet structure, evolution, and web technologies.
3. To introduce Internet protocols and addressing mechanisms.
4. To build foundational knowledge of HTML for web development.

Learning Outcomes

1. Describe networking concepts and Internet architecture.
2. Explain web technologies and Internet services.
3. Analyze different Internet protocols and IP addressing.
4. Create structured web pages using HTML fundamentals.

UNIT I

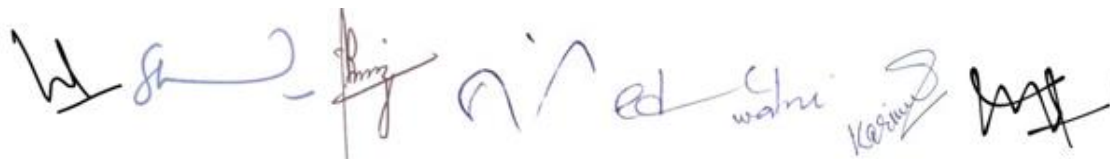
Network: Definition, Goals, Advantages and Disadvantages, Categories of Networks, Network Topologies, Data Communication and its Components (Sender, Receiver, Protocol, Message, Medium), Transmission Modes (Simplex, Half Duplex, Full Duplex), Transmission Media: Co-axial, Twisted Pair, Fiber Optics, Radio Waves, Microwaves, Satellites, Networking Devices: Modem, Switch, Hub, Router, Bridge, Gateway.

(15 Hours)

UNIT II

Introduction to Internet, Definition and characteristics, Basic architecture of Internet, Client-server model, History and Evolution, Growth of Internet and WWW, Modern Internet trends, Applications of Internet, E-commerce and E-governance, Education (E-learning platforms), Social Networking, Advantages and Disadvantages, Web Terminologies, Web Browser (Types and functions), Web Address , URL structure, DNS (Domain Name System), Search Engines.

(15 Hours)



Syllabus of BA/B.ScHonours (FYUGP) in Computer Applications

UNIT III

IP Addressing, Definition and purpose,IPv4 structure (32-bit addressing),IPv6 structure (128-bit addressing),Differences between IPv4 and IPv6,Classes of IP Address (Class A, B, C, D, E), Public vs Private IP, Protocols and their Functions, HTTP & HTTPS (Web communication), FTP,SMTP,POP3, Internet Connection Concepts: Dial-up, Broadband, Wireless, Basics of data transmission in Internet.

(15 Hours)

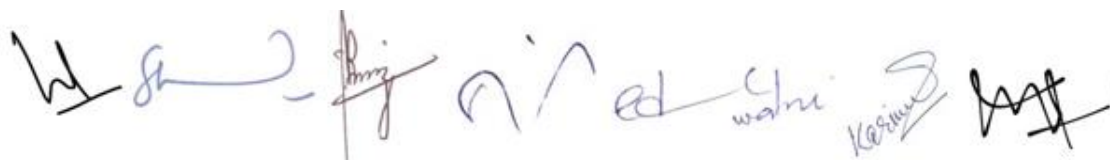
UNIT IV

Introduction to HTML, Definition and features, Role in web development, Structure of HTML Document, HTML, HEAD, BODY tags, Basic syntax, HTML Tags, Basic Tags (Heading, Paragraph, Break, Horizontal line),Formatting Tags (Bold, Italic, Underline, Font),HTML Lists: Ordered List, Unordered List, Definition List, HTML Elements, Images and Image Mapping, Div and Span (Grouping elements).

(15 Hours)

References:

1. Andrew S. Tanenbaum, Computer Networks, Pearson
2. William Stallings, Data and Computer Communication, Pearson
3. Forouzan, Data Communication and Networking, McGraw Hill
4. Douglas E. Comer, The Internet Book, Prentice Hall

A series of handwritten signatures and initials in blue ink, including 'W', 'S', 'P', 'A', 'G', 'K', and 'M'.

Syllabus of BA/B.Sc Honours (FYUGP) in Computer Applications Testing and Evaluation:

Examination Pattern shall be as under:

1. 20 marks shall be earmarked for Internal Assessment (05 Marks for Attendance and 15 Marks for Assessment Test).

2. Scheme for award of marks for attendance:

- | | | |
|---------------------------|---|----------|
| a. Attendance of 75-80 % | = | 01 Marks |
| b. Attendance of 81-85 % | = | 02 Marks |
| c. Attendance of 86-90 % | = | 03 Marks |
| d. Attendance of 91-95 % | = | 04 Marks |
| e. Attendance of 96-100 % | = | 05 Marks |

3. Pattern of Internal Assessment Test of 15 marks:

a. The test shall comprise of two sections:

i. SECTION-A (Short Answer Type questions)

1. Attempt any five Questions of 02 Marks each out of eight Questions. **(5x2=10 Marks)**

ii. SECTION-B(Long Answer Type questions)

1. Attempt any one Question of 05 Marks out of two Questions. **(1x5=5 Marks)**

4. Pattern of External End-Semester Examination of 80 marks:

a. The Paper shall comprise of three Sections:

i. SECTION-A(Very short Answer Type Questions)

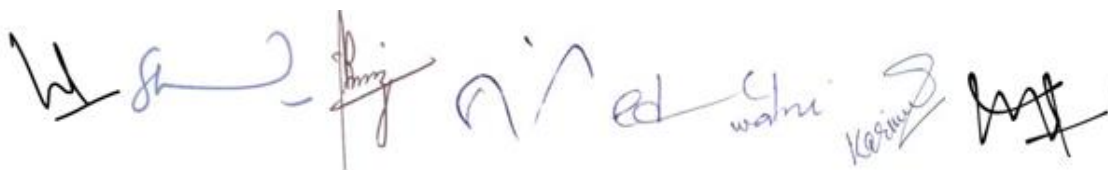
1. 06 questions of 01 mark each. **6x1=6 marks**
2. 05 questions of 02 mark each. **5x2=10 marks**

ii. SECTION-B(Short Answer Type Questions)

1. Total 08 questions (02 Questions from each unit) of 04 marks each.
2. Attempt any one Question from each Unit. **4x4=16 marks**

iii. SECTION-C (Long Answer Type Questions)

1. Total 08 questions (02 Questions from each unit) of 12 marks each.
2. Attempt any one Question from each Unit. **4x12=48 marks**



Syllabus of BA/B.Sc Honours (FYUGP) in Computer Applications
COMPUTER APPLICATION (ARTS/SCIENCE)

FIRST SEMESTER

Course Title: HTML PROGRAMMING

Course Type: MINOR

Course Code: UMICAPR-231

Course Credits: (02)

Internal Practical Examination: 25 Marks

External Practical Examination: 25 Marks

Total Marks: 50

Course Objectives

1. To develop hands-on skills in HTML web page design.
2. To create structured layouts using tables and frames.
3. To design interactive web forms for user input.

Learning Outcomes

1. Design web pages using HTML tables and layouts.
2. Implement frames and embed content using iframes.
3. Create interactive forms for data collection.
4. Apply basic validation and user interface design principles.

UNIT I

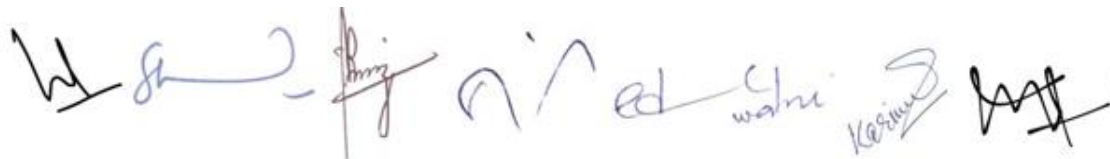
HTML Tables, Table creation (TABLE, TR, TH, TD), Table attributes (Border, Bgcolor, Align), Cell spacing and padding, Rowspan and Colspan, Frames and Layouts, Frame and Frameset, Frame attributes, Iframe and embedding external content, create timetable using tables, Design webpage layout using frames,

(30 Hours)

UNIT II

HTML Forms, Form structure and attributes (Action, Method, Name), Form Controls, Textbox, Password field, Checkboxes, Radio buttons, Select (Dropdown), File upload, Hidden fields, Buttons (Submit, Reset), Basic Form Design, User-friendly interface, Simple validation concepts

(30 Hours)



**Syllabus of BA/B.Sc Honours (FYUGP) in Computer Applications
Examination Pattern shall be as under:**

1. 25 marks shall be earmarked for Internal Practical Examination

- a. 05 Marks for Attendance.
- b. 10 Marks for Practical Test.
- c. 05 Marks for Project Report.
- d. 05 Marks for Viva/ Presentation.

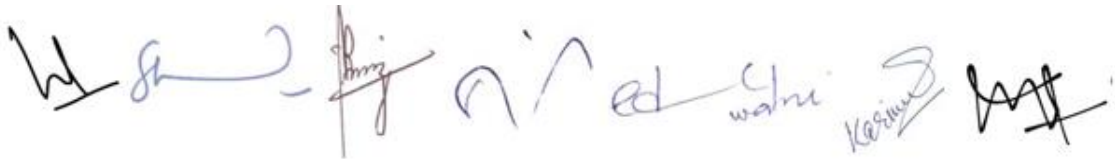
2. 25 marks shall be earmarked for External Practical Examination

- a. 10 Marks for Practical Test.
- b. 05 Marks for Project Report.
- c. 05 Marks for Implementation.
- d. 05 Marks for Viva/ Presentation.

(External Examiner shall be appointed by the principal of the College).

3. Scheme for award of marks for attendance:

- | | | |
|---------------------------|---|----------|
| a. Attendance of 75-80 % | = | 01 Marks |
| b. Attendance of 81-85 % | = | 02 Marks |
| c. Attendance of 86-90 % | = | 03 Marks |
| d. Attendance of 91-95 % | = | 04 Marks |
| e. Attendance of 96-100 % | = | 05 Marks |

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Syllabus of BA/B.Sc Honours (FYUGP) in Computer Applications
COMPUTER APPLICATION (ARTS/SCIENCE)

SECOND SEMESTER

Course Title: Understanding Internet

Course Type: MULTIDISCIPLINARY

Course Code: UMDCATH-241

Course Credits: (03)

Internal Assessment: 15 Marks (1.5 hours)

End Semester Examination: 60 Marks (2 $\frac{1}{2}$ hours)

Total Marks: 75

Course Objectives

1. To develop understanding of computer networks and Internet fundamentals.
2. To explain Internet structure, evolution, and web technologies.
3. To introduce Internet protocols and addressing mechanisms.
4. To build foundational knowledge of HTML for web development.

Learning Outcomes

1. Describe networking concepts and Internet architecture.
2. Explain web technologies and Internet services.
3. Analyze different Internet protocols and IP addressing.
4. Create structured web pages using HTML fundamentals.

UNIT I

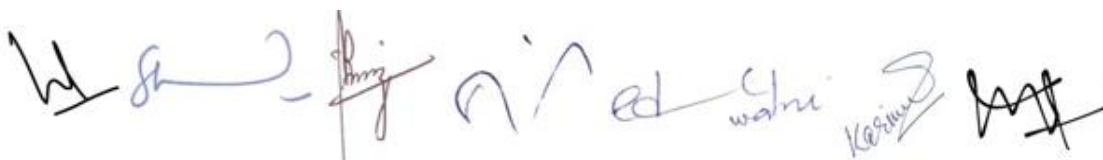
Network: Definition, Goals, Advantages and Disadvantages, Categories of Networks, Network Topologies, Data Communication and its Components (Sender, Receiver, Protocol, Message, Medium), Transmission Modes (Simplex, Half Duplex, Full Duplex), Transmission Media: Co-axial, Twisted Pair, Fiber Optics, Radio Waves, Microwaves, Satellites, Networking Devices: Modem, Switch, Hub, Router, Bridge, Gateway.

(15 Hours)

UNIT II

Introduction to Internet, Definition and characteristics, Basic architecture of Internet, Client-server model, History and Evolution, Growth of Internet and WWW, Modern Internet trends, Applications of Internet, E-commerce and E-governance, Education (E-learning platforms), Social Networking, Advantages and Disadvantages, Web Terminologies, Web Browser (Types and functions), Web Address, URL structure, DNS (Domain Name System), Search Engines.

(15 Hours)



Syllabus of BA/B.Sc Honours (FYUGP) in Computer Applications

UNIT III

IP Addressing, Definition and purpose, IPv4 structure (32-bit addressing), IPv6 structure (128-bit addressing), Differences between IPv4 and IPv6, Classes of IP Address (Class A, B, C, D, E), Public vs Private IP, Protocols and their Functions, HTTP & HTTPS (Web communication), FTP, SMTP, POP3, Internet Connection Concepts: Dial-up, Broadband, Wireless, Basics of data transmission in Internet.

(15 Hours)

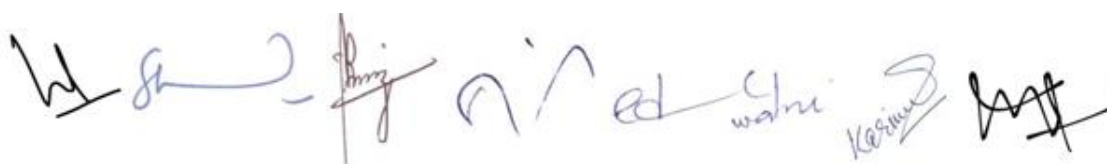
UNIT IV

Introduction to HTML, Definition and features, Role in web development, Structure of HTML Document, HTML, HEAD, BODY tags, Basic syntax, HTML Tags, Basic Tags (Heading, Paragraph, Break, Horizontal line), Formatting Tags (Bold, Italic, Underline, Font), HTML Lists: Ordered List, Unordered List, Definition List, HTML Elements, Images and Image Mapping, Div and Span (Grouping elements).

(15 Hours)

References:

1. Andrew S. Tanenbaum, Computer Networks, Pearson
2. William Stallings, Data and Computer Communication, Pearson
3. Forouzan, Data Communication and Networking, McGraw Hill
4. Douglas E. Comer, The Internet Book, Prentice Hall

A series of handwritten signatures and initials in blue ink, likely belonging to faculty members or the coordinator, arranged horizontally.

Syllabus of BA/B.Sc Honours (FYUGP) in Computer Applications Testing and Evaluation:

Examination Pattern shall be as under:

1. 15 marks shall be earmarked for Internal Assessment (05 Marks for Attendance and 10 Marks for Assessment Test).

2. Scheme for award of marks for attendance:

- | | | |
|---------------------------|---|----------|
| a. Attendance of 75-80 % | = | 01 Marks |
| b. Attendance of 81-85 % | = | 02 Marks |
| c. Attendance of 86-90 % | = | 03 Marks |
| d. Attendance of 91-95 % | = | 04 Marks |
| e. Attendance of 96-100 % | = | 05 Marks |

3. Pattern of Internal Assessment Test of 10 marks:

a. The test shall comprise of two sections:

i. SECTION-A (Short Answer Type questions)

1. Attempt any four Questions of $1\frac{1}{2}$ Marks each out of Six Questions. **(4x $1\frac{1}{2}$ =06 Marks)**

ii. SECTION-B(Long Answer Type questions)

1. Attempt any one Question of 04 Marks out of two Questions. **(1x4=4 Marks)**

4. Pattern of External End-Semester Examination of 60 marks:

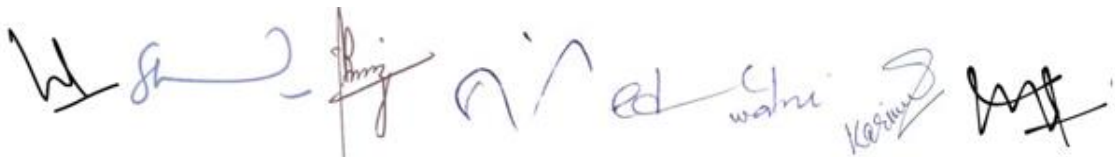
a. The Paper shall comprise of two Sections:

i. SECTION-A(Short Answer Type Questions)

1. 04 questions having one Question from each Unit of 03 marks. **4x3=12 marks**

ii. SECTION-B(Long Answer Type Questions)

1. Total 08 questions having 02 Questions from each unit of 12 marks.
2. Attempt any one Question from each Unit. **4x12=48 marks**



Syllabus of BA/B.Sc Honours(FYUGP) in Computer Applications
COMPUTER APPLICATION (ARTS/SCIENCE)

FIRST SEMESTER

Course Title: WEB TECHNOLOGY-I
Course Type: SKILL ENHANCEMENT COURSE

CourseCode:USECAPR-151 Course

Credits: (03)

Internal Assessment: 35 Marks (1.5 hours)

End Semester Examination:40 Marks (2hours)

Total Marks:75

Course Objectives

1. To develop understanding of computer networks and Internet fundamentals.
2. To explain Internet structure, evolution and web technologies.
3. To introduce Internet protocols and addressing mechanisms.
4. To build foundational knowledge of HTML for web development.

Learning Outcomes

1. Describe networking concepts and Internet architecture.
2. Explain web technologies and Internet services.
3. Analyze different Internet protocols and IP addressing.
4. Create structured web pages using HTML fundamentals.

UNIT I

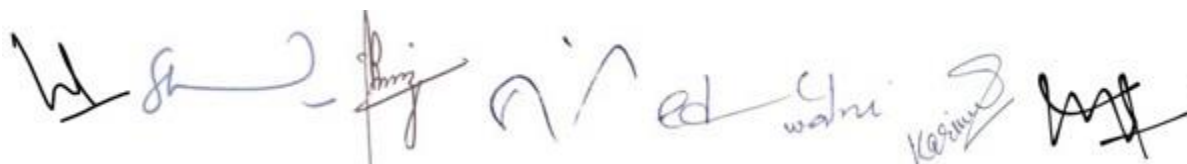
Introduction to Internet, Definition and characteristics, Basic architecture of Internet, Client-server model, History and Evolution, Growth of Internet and WWW, Modern Internet trends, Applications of Internet, E-commerce and E-governance, Education (E-learning platforms), Social Networking, Advantages and Disadvantages, Web Terminologies, Web Browser (Types and functions), Web Address, URL structure,DNS (Domain Name System),Search Engines.

(15 Hours)

UNIT II

Introduction to HTML, Definition and features, Role in web development, Structure of HTML Document, HTML, HEAD, BODY tags, Basic syntax, HTML Tags, Basic Tags (Heading, Paragraph, Break, Horizontal line),Formatting Tags (Bold, Italic, Underline, Font),HTML Lists: Ordered List, Unordered List, Definition List, HTML Elements, Images and Image Mapping, Div and Span (Grouping elements).

(30Hours)

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Syllabus of BA/B.Sc Honours(FYUGP) in Computer Applications

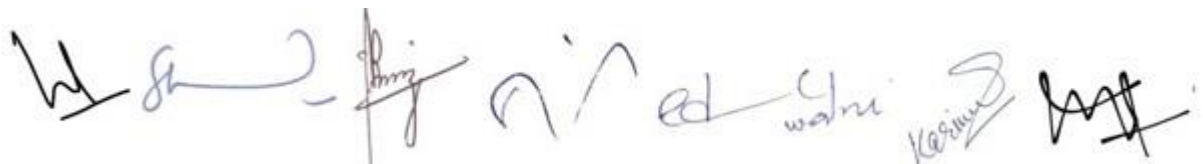
UNIT III

HTML Tables, Table creation (TABLE, TR, TH, TD), Table attributes (Border, Bgcolor, Align), Cell spacing and padding, Rowspan and Colspan, Frames and Layouts, Frame and Frameset, Frame attributes, Design webpage layout using frames, HTML Forms, Form structure and attributes (Action, Method, Name), Form Controls, Textbox, Password field, Checkboxes, Radio buttons, Select (Dropdown), File upload, Hidden fields, Buttons (Submit, Reset),

(30 Hours)

References:

1. Andrew S. Tanenbaum, Computer Networks, Pearson
2. William Stallings, Data and Computer Communication, Pearson
3. Forouzan, Data Communication and Networking, McGrawHill
4. Douglas E. Comer, The Internet Book, PrenticeHall
5. Jeffrey C. Jackson, Web Technologies: A Computer Science Perspective, Pearson.
6. Jon Duckett, HTML&CSS: Design and Build Websites.
7. Kogent Learning Solutions Inc., HTML5 Black Book.
8. David Flanagan, JavaScript: The Definitive Guide.
9. Thomas Powell, Web Design: The Complete Reference.



Syllabus of BA/B.Sc Honours(FYUGP) in Computer Applications

Testing and Evaluation:

Examination Pattern shall be as under:

1. **35 marks shall be earmarked for Internal Assessment**(05Marksfor Attendance and 30 Marks for Assessment Test).

2. **Scheme for award of marks for attendance:**

a.Attendanceof75-80%	=	01 Marks
b.Attendanceof81-85%	=	02 Marks
c. Attendanceof86-90%	=	03 Marks
d.Attendanceof91-95%	=	04 Marks
e.Attendanceof96-100%	=	05 Marks

3. **Pattern of Internal Assessment Test of 30 marks:**

a. The test shall comprise of two sections:

i. **SECTION-A(Short Answer Type questions)**

1. Attempt any five Questions of 03Marks each out of Seven Questions. **(5x3=15 Marks)**

ii. **SECTION-B(Long Answer Type questions)**

1. Attempt any two Question of 7.5 Marks out of four Questions. **(2x7.5=15 Marks)**

4. **Pattern of External End-Semester Examination of 40 marks:**

a. The Paper shall comprise of two Sections:

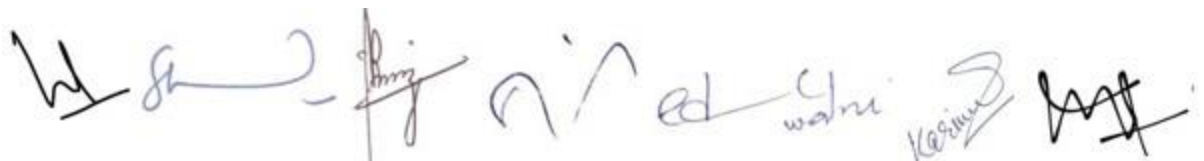
i. **SECTION-A(Short Answer Type Questions)**

1. 05 questions of 02 marks each.**5x2=10marks**

ii. **SECTION-B(Long Answer Type Questions)**

1. Total 06 questions having 02 Questions from each unit of 10 marks.

2. Attempt any one Question from each Unit.**3x10=30 marks**



Syllabus of BA/B.Sc Honours(FYUGP) in Computer Applications
COMPUTER APPLICATION (ARTS/SCIENCE)

SECOND SEMESTER

Course Title: WEB TECHNOLOGY-II

Course Type: SKILL ENHANCEMENT COURSE

Course Code: USECAPR-251

Course Credits: (03)

Internal Assessment: 35 Marks (1.5 hours)

End Semester Examination: 40 Marks (2 hours)

Total Marks: 75

Course Objectives

1. To understand the fundamentals of Cascading Style Sheets (CSS).
2. To learn webpage styling and responsive webpage designing concepts.
3. To understand the basics of JavaScript programming language.
4. To create simple interactive webpages using JavaScript.

Learning Outcomes

1. Apply basic HTML for creating websites.
2. Apply CSS for styling webpages.
3. Demonstrate the usage of JavaScript for creating dynamic and interactive web content.
4. Use Bootstrap for front-end development of creating websites and webapps.
5. Develop an interactive website using, HTML, CSS, JavaScript and bootstrap.

UNIT I

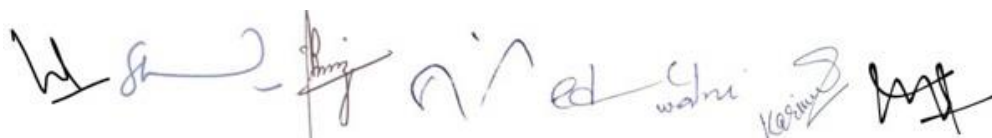
Introduction to CSS, Need and Advantages of CSS, Features of CSS, Types of CSS (Inline CSS, Internal CSS and External CSS), CSS Syntax and Comments, CSS Selectors (Element Selector, Class Selector and ID Selector), CSS Properties and Values, Background Properties, Color Properties, Border Properties, Margin and Padding Properties, Height and Width Properties, Font Properties, Text Formatting using CSS, Styling Hyperlinks, Styling Tables and Forms, Positioning Basics, Introduction to Responsive Webpages, Media Queries Basics, Introduction to Bootstrap Framework.

(15 Hours)

UNIT II

Introduction to JavaScript, Features and Advantages of JavaScript, Embedding JavaScript in HTML, Variables and Constants, Data Types in JavaScript, Operators (Arithmetic, Relational, Logical and Assignment Operators), Input and Output Statements, Dialog Boxes (alert, prompt and confirm), Conditional Statements (if Statement, if-else Statement, nested if-else Statement), Switch Statement, Looping Statements (for loop, while loop and do-while loop), break and continue statements, Introduction to Functions, Simple Programs in JavaScript

(30 Hours)



Syllabus of BA/B.Sc Honours(FYUGP) in Computer Applications

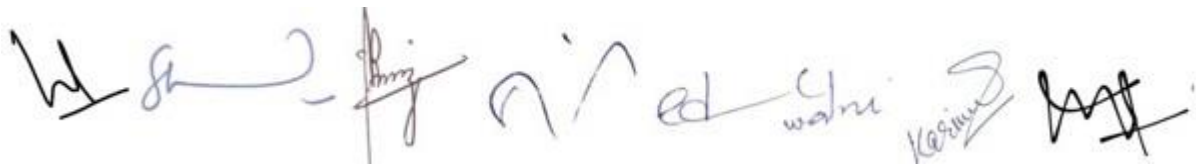
UNIT III

Functions in JavaScript, Types of Functions, Arrays in JavaScript, String Handling Functions, JavaScript Events and Event Handling, Mouse and Keyboard Events, Form Validation Basics, Introduction to DOM (Document Object Model), DOM Elements and Methods, Simple DOM Manipulation, Introduction to JavaScript Objects, Browser Objects Basics, Dynamic Webpage Concepts, Introduction to Cookies and Basic Error Handling.

(30 Hours)

References:

1. Andrew S. Tanenbaum, Computer Networks, Pearson
2. William Stallings, Data and Computer Communication, Pearson
3. Forouzan, Data Communication and Networking, McGraw Hill
4. Douglas E. Comer, The Internet Book, Prentice Hall
5. Jeffrey C. Jackson, Web Technologies: A Computer Science Perspective, Pearson.
6. Jon Duckett, HTML&CSS: Design and Build Websites.
7. Kogent Learning Solutions Inc., HTML5 Black Book.
8. David Flanagan, JavaScript: The Definitive Guide.
9. Thomas Powell, Web Design: The Complete Reference.



Syllabus of BA/B.Sc Honours(FYUGP) in Computer Applications

Testing and Evaluation:

Examination Pattern shall be as under:

1. **35 marks shall be earmarked for Internal Assessment**(05Marksfor Attendance and 30 Marks for Assessment Test).

2. **Scheme for award of marks for attendance:**

a.Attendanceof75-80%	=	01 Marks
b.Attendanceof81-85%	=	02 Marks
c. Attendanceof86-90%	=	03 Marks
d.Attendanceof91-95%	=	04 Marks
e.Attendanceof96-100%	=	05 Marks

3. **Pattern of Internal Assessment Test of 30 marks:**

b. The test shall comprise of two sections:

i. **SECTION-A(Short Answer Type questions)**

1. Attempt any five Questions of 03Marks each out of Seven Questions. **(5x3=15 Marks)**

ii. **SECTION-B(Long AnswerType questions)**

1. Attempt any two Question of 7.5 Marks out of four Questions. **(2x7.5=15 Marks)**

4. **Pattern of External End-Semester Examination of 40 marks:**

c. The Paper shall comprise of two Sections:

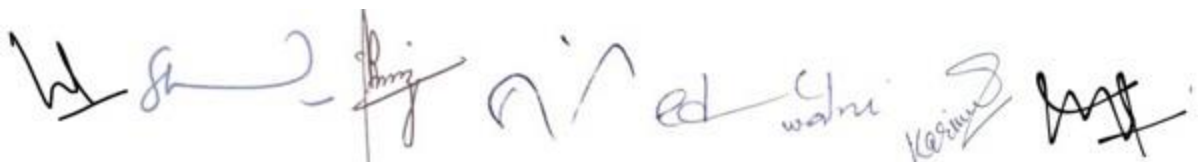
i. **SECTION-A(Short Answer Type Questions)**

1. 05 questions of 02 marks each.**5x2=10marks**

ii. **SECTION-B(Long Answer Type Questions)**

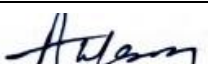
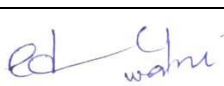
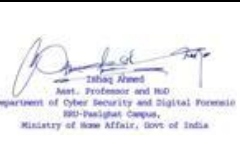
1. Total 06 questions having 02 Questions from each unit of 10 marks.

2. Attempt any one Question from each Unit.**3x10=30 marks**



Syllabus of BA/B.Sc Honours(FYUGP) in Computer Applications

Member of Board of Studies:

S.No	Name of the Subject Expert/Member	Designation	Signature
1.	Dr. Vinod Sharma	Professor Department of Computer Science and IT, university of jammu	
2.	Dr. Tasleem Arif	Head Department of Information Technology, BGSBU RAJOURI	
3.	Dr. Jasbir Singh	Principal SKC Govt. Degree College Poonch	
4.	Prof. Assadullah Khan	Dean Academic Affairs, SKC GDC Poonch.	
5.	Prof. Ed Gowhar	Assistant Professor, Department of Information Technology BGSBU RAJOURI.	
6.	Prof. Abdul Karim	Associate Professor and Head, Govt. Degree College Surankote	
7.	Prof. Riaz Ahmed	Associate Professor and Head, Govt. PG College Rajouri	
8.	Prof. Sankait Gupta	Associate Professor and Head, Govt. Degree College R.S PURA	
9.	Dr. Mohd Jameel	Assistant Professor and Head, SCS Govt. Degree College Mendhar	
10	Prof. Parvinder Kumar	Assistant Professor IT GDC Ramnagar	
11	Prof. Vipin Kumar	Assistant Professor IT GDC Samba	
12	Prof..Amjad Khan Bhatti	Coordinator IT Cell Cluster University of Jammu.	
13	Mr. Ishaq Ahmed	Assistant Professor & HOD, Department of Cyber Security & Digital Forensics, RRU-Pasighat Campus, Ministry of Home Affair, Govt. of India.	 Tilay Ahmed Asst. Professor and HOD Department of Cyber Security and Digital Forensics RRU-Pasighat Campus, Ministry of Home Affairs, Govt. of India
14	Dr. Tariq Sheikh	Associate Professor , Department of CSE, KL deemed to be University Andra Pradesh	
15	Mr. Waseem Akram	Head Department of Computer Application	
16	Mr. Mohd Basharat	Head Department of Information Technology	

Syllabus of BA/B.Sc Honours(FYUGP) in Computer Applications

Syllabus for FYUGP as per NEP-2020

Semester-I/II

Value Added Courses (VAC)

Examination to be held December 2026, 2027 and 2028 / May 2027, 2028 and 2029

Credits: 2	Unitization: 03 Units
Max Marks: 50	Course Code: UVADTTH-161 / UVADTTH-261
Course Title: Digital and Technological Solutions	Duration of Examination: 2½ Hours
Mid Semester Examination: 10 Marks	No. of Lectures: 30
End Semester Examination: 40 Marks	

Course Objectives

- To gain familiarity with digital technologies.
- To sensitize about the role and significance of digital technology.
- To provide know-how of communications and networks.
- To bring awareness about the e-governance and Digital India initiatives.
- To provide familiarity with emerging digital technologies.

Course Outcomes

- Knowledge about the digital paradigm.
- Realisation of the importance of digital technology, digital financial tools, and e-commerce.
- Know-how of communication and computer networks.
- Familiarity with the e-governance and Digital India initiatives.
- Understanding of the latest digital technologies.

UNIT I

Introduction and Evolution of Digital Systems, Role and significance of Digital Technology, Information & communication technology & tools, Computer system & its working, Software and its types, Operating Systems: types and functions.

Communication Systems: Principles, model & transmission media, Computer networks, Internet: concept and applications, WWW, Web Browsers, Search Engines, Messaging, E-mail, Social networking.

UNIT II

Computer Based Information System: significance and types, e-Commerce & digital marketing: basic concepts, benefits & challenges.

Digital India & e-Governance: Initiatives, Infrastructure, Services and Empowerment.

Digital Financial Tools: Unified Payment Interface (UPI), Aadhaar Enabled Payment System, USSD, Credit/Debit Cards, e-Wallets, Internet Banking, NEFT/RTGS and IMPS, Online Bill Payments and PoS.

Cyber Security: Threats, Significance, Challenges, Precautions, Safety Measures & Tools.

UNIT III

Emerging Technologies & their applications: Overview of Cloud Computing, Big Data, Internet of Things (IoT), Virtual Reality, Blockchain, Robotics, Artificial Intelligence, 3-D Printing, Future of digital technologies.

Text Books

1. Fundamentals of Computers by E. Balagurusamy, Tata McGraw Hill.
2. Data Communication and Networking by Behrouz A. Forouzan, McGraw Hill Education.
3. Emerging Technologies in Computing: Theory, Practice, and Advances by P. Kumar, A. Tomar, and R. Sharmila, 2021.
4. Essentials of Cloud Computing by K. Chandrasekharan, CRC Press, 2014.
5. Blockchain: Blueprint for a New Economy by M. Swan, O'Reilly Media, 2015.

Reference Books

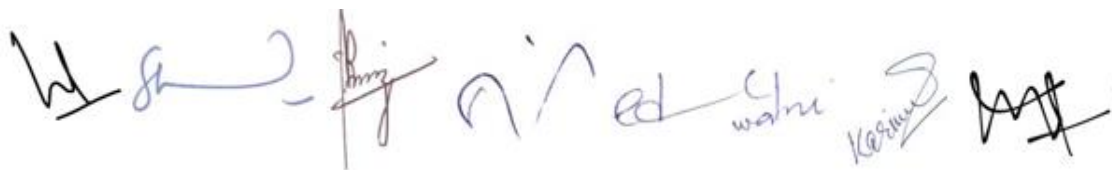
6. Introduction to Computers by Peter Norton, Tata McGraw Hill.
7. Artificial Intelligence: A Modern Approach by Stuart Russell and Peter Norvig, Prentice Hall.
8. E-Commerce by K. C. Laudon and C. G. Traver, Pearson, 2013.
9. Big Data for Dummies by Judith Hurwitz, A. Nugent, F. Halper, and M. Kaufman, John Wiley & Sons, 2013.
10. Cloud Computing: Principles and Paradigms by Rajkumar Buyya, James Broberg, and Andrzej M. Goscinski, Wiley, 2011.
11. Blockchain Basics: A Non-Technical Introduction in 25 Steps by Daniel Drescher, 1st Edition.

Scheme of Examination

The paper shall be of 50 marks comprising 10 marks for Mid Semester Assessment and 40 marks for End-Semester Examination. The responsibility of conducting and evaluating the Mid Semester Assessment is vested on the teacher designated as Course Coordinator. The End-Semester Examination shall be conducted by the concerned University.

Section A: Four (4) short answer questions representing all units/syllabi, at least one question from each unit. Each question shall be of 2½ marks (all compulsory).

Section B: Six (6) long answer questions (three to be attempted, one from each unit) representing the whole of the syllabi, i.e., two questions from each unit. Each question shall be of 10 marks.



MINUTES OF THE MEETING OF THE BOARD OF STUDIES (BoS)
Department of Computer Applications & IT
SKC Government Degree College, Poonch
(Autonomous College under University of Jammu)
Academic Session: 2026-27

A meeting of the Board of Studies (BoS) of the Department of Computer Applications & Information Technology, SKC Government Degree College, Poonch, was convened on 20-06-2026 to deliberate upon and finalize the proposed syllabus under the Autonomous College Framework in accordance with the provisions of the National Education Policy (NEP)-2020 and FYUGP guidelines for implementation from the Academic Session 2026-27.

The members of the Board thoroughly examined the draft syllabus and offered valuable suggestions and recommendations regarding course structure, content updation, learning outcomes, practical components, and alignment with contemporary academic and industry requirements.

The Board noted that, after due consideration and incorporation of the suggestions received during the meeting, the revised draft syllabus had been prepared for further circulation among the esteemed members for their final observations.

During the deliberations, the following recommendations were made by the external subject experts and the Board of Studies:

1. **Prof. Vinod Sharma** and **Dr. Tasleem Arif** suggested that the existing list of conventional input and output devices in Unit-II be updated by replacing obsolete or less frequently used devices with modern touch-based and sensor-based input and output devices, thereby enhancing the relevance and contemporary applicability of the syllabus in view of recent technological advancements.
2. The experts further recommended the inclusion of a separate sub-unit titled “**Overview of Emerging Technologies**”, encompassing topics such as **Artificial Intelligence (AI), Chatbots, Voice Assistants and other emerging digital technologies**, with the objective of familiarizing students with current technological developments and industry trends.
3. It was further recommended that the revised draft syllabus, after incorporating the suggestions and recommendations of the Board members and external experts, be circulated among all the esteemed members of the Board for their final perusal and comments.
4. The Board also deliberated upon the duration and applicability of the revised syllabus and recommended that, after incorporation of all suggestions and obtaining the concurrence

of the members, the syllabus be implemented under the Autonomous College Framework for the Academic Sessions **2026-27, 2027-28 and 2028-29**, subject to such modifications as may become necessary owing to changes in UGC Regulations, NEP-2020 Guidelines, University directives, technological advancements, or any other statutory requirements.

Resolutions Passed

Resolution No. 01

Resolved that the revised draft syllabus prepared after incorporating the suggestions and recommendations of the Board members and external subject experts be circulated among all the esteemed members for their final perusal and comments.

Resolution No. 02

Resolved that the recommendations made by the external experts regarding the updation of Unit-II by introducing modern touch-based and sensor-based input and output devices, and the inclusion of a separate sub-unit on Emerging Technologies, namely Artificial Intelligence (AI), Chatbots, Voice Assistants, and other emerging digital technologies, be incorporated in the syllabus before its final approval and implementation from the Academic Session 2026-27.

Resolution No. 03

Resolved that, after incorporating all the suggestions and recommendations of the Board members and external experts, the Board unanimously approved the revised and updated syllabus of the Department of Computer Applications & Information Technology under the Autonomous College Framework.

Resolution No. 04

*Resolved that the revised syllabus of the **Department of Computer Applications & Information Technology is hereby approved for implementation for the Academic Sessions 2026-27, 2027-28 and 2028-29**, subject to such amendments and modifications as may be required by the statutory and regulatory authorities from time to time.*

The meeting concluded with a formal vote of thanks to the esteemed Subject Experts and all the members of the Board for their valuable suggestions, active participation, and significant contributions towards the successful revision, approval, and finalization of the syllabus.

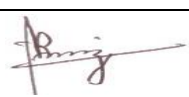
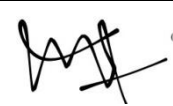
Chairperson, Board of Studies

Department of Computer Applications
SKC Government Degree College, Poonch

**Chairperson, Board of Studies**

Department of Information Technology
SKC Government Degree College, Poonch

**Members Present:**

S.No	Name of the Subject Expert/Member	Designation	Signature
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2.	Dr. Tasleem Arif	Head Department of Information Technology, BGSRU RAJOURI	
3.	Dr. Jasbir Singh	Principal SKC Govt. Degree College Poonch	
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Date: 10-07-2026