

DEPARTMENT OF COMPUTER SCIENCE

U.G. PROGRAMME

SYLLABUS

2016 – 2019 BATCH

VI SEMESTER



A. D. M. COLLEGE FOR WOMEN

NAGAPATTINAM

SEMESTER VI
CORE COURSE (CC) XIII
DATA COMMUNICATIONS AND NETWORKING

Internal Marks : 25

Instruction Hrs : 6

External Marks :75

Credit : 6

Total Marks :100

Exam Hrs : 3

Objective

To understand the Design and Organization of Computer Networks

UNIT I

Overview and Physical Layer: Introduction: Data Communications - Networks - Network Types, Network Models: TCP/IP Protocol Suite- The OSI Model, Bandwidth utilization : Multiplexing- Spread Spectrum, Transmission Media: Guided Media-Unguided Media, Switching: Circuit Switched Network-Packet Switching-Structure of a switch.

UNIT II

Data Link Layer: Error Deduction and Correction : Introduction- Cyclic codes- Forward error correction, Data link Control: Data link layer protocols- Media Access Control: Random Access- Controlled Access, Wireless Networks: IEEE 802.11- Bluetooth-Cellular Telephone- Satellite network- Connection devices.

UNIT III

Network Layer Services : Packet Switching- Network layer performance- IPV4 Addresses- Internet Protocol-Routing Algorithms - IPV6 Addressing.

UNIT IV

Transport Layer : Transport Layer Protocols- User Datagram Protocol - TCP:TCP Services TCP features - Windows in TCP - Flow Control - Error Control- TCP Congestion Control - TCP timers.

UNIT V

Application Layers : Client Server Programming - Word Wide Web & HTTP - FTP - Email – DNS.

Text Book

Data Communications and Networking, Behrouz A Forouzan, Tata McGraw Hill, Fifth Edition, 2013.

Reference Book

Data Communications and Networks, Achyut Godbole and Atul Kahate, McGraw Hill Education, 2011.

SEMESTER VI
CORE COURSE-XIV (CC)
MICROPROCESSOR AND ASSEMBLY LANGUAGES

Internal Marks	: 25	Instruction Hrs	:6
External Marks	:75	Credit	:6
Total Marks	:100	Exam Hrs	:3

Objectives

To understand the architecture and working principles of Microprocessors. To write simple assembly language programs and provide knowledge of various real time Microprocessor Applications.

UNIT I

Evolution of microprocessors- single chip- microcomputers- Memory-Semiconductor memory, cache memory, Associate and set associate memory, Real and virtual memory, magnetic memory, PCMCIA cards and slots- Buses- Memory address capacity of CPU- microcomputers- processing architecture-Intel 8085- Instruction cycle- timing diagram

UNIT II

Instruction set of Intel 8085- Instruction and data formats- Addressing modes- status flags- INTEL 8085 Instructions- Programming of Microprocessors- Assemblers- stack and subroutines- macros and microprogramming

UNIT III

Assembly language programming- simple examples- Addition and subtraction of binary and decimal numbers- complements- shift- masking- finding, Max and Min numbers in an array - arranging a series of numbers- Multiplication, division- Multibyte Addition and subtraction.

UNIT IV

Peripheral devices and interfacing- address space partitioning- Memory and I/O Interfacing- data transfer schemes- Interrupts of Intel 8085- interfacing devices and I/O devices- I/O ports- Programmable peripheral Interface.

UNIT V

Microprocessor Applications- Delay subroutines- Interfacing of 7 segment LED displays- Frequency measurements- Temperature measurements and control- water level indicator – Microprocessors based Traffic control

Text Book

“Fundamentals of microprocessors and microcomputers”- Badri Ram- Fifth revised and enlarged edition- Dhunpat rai publications- 2001

Reference Book

“Microprocessor Architecture, programming and application with the 8085/8080A”- Romesh s. Gonakar- Pensam International publishers India-1997.

SEMESTER VI
CORE COURSE (CC) XV
MICROPROCESSOR LAB

Internal Marks : 40
External Marks : 60
Total Marks :100

Instruction Hrs : 6
Credit : 4
Exam Hrs : 3

Microprocessors Experiments

1. 8-bit addition, subtraction, multiplication and division
2. Multibyte addition and subtraction
3. Sum of series (8-bit)
4. Data transfer from one part of the memory to another
5. Maximum and minimum values
6. Sorting (Ascending and Descending order)
7. Hexadecimal to decimal and decimal to hexadecimal conversion (simple logic only)

SEMESTER VI

MAJOR BASED ELECTIVE COURSE (MBE)-II

COMPUTER GRAPHICS

Internal Marks :25
External Marks :75
Total Marks :100

Instruction Hrs : 6
Credit : 6
Exam Hrs : 3

Objective

To impart the basic principles of generating primitives, shapes, package development, interactive graphics, raster graphics, two and three dimensional graphics and their transformations.

UNIT I

Introduction: Overview of Graphics Systems - Video Display Devices - Refresh Cathode Ray Tubes - Raster Scan and Random Scan Displays - Raster Scan and Random Scan Display Processo - Colour CRT Monitors – DVST - 3D Viewing Devices - Input Devices - Hard Copy Devices.

UNIT II

Output primitives: Line drawing algorithms - DDA Line drawing algorithm - Bresenham's line drawing algorithm - Circle Drawing algorithms - Bresenham's circle drawing algorithm - Mid point circle drawing Algorithms - Area filling algorithms – Scan line algorithm – boundary fill algorithm – flood fill algorithm - character generation

UNIT III

Attributes of Output primitives: line attributes – Curve attributes - Area fill attributes - Character attributes - bundled attributes - Anti aliasing techniques - 2D Transformations – Basic transformation – Composite transformation – other transformation

UNIT IV

2D viewing: windowing concepts – clipping algorithms- window to viewport transformation - Graphical User interfaces - logical classification of input devices -Interactive Input Methods

UNIT V

3D Concepts: Three dimensional display techniques - Three dimensional representation - Three dimensional Transformations

TEXT BOOK

1. Donald Hearn and M. Pauline Baker, Computer Graphics , 3rd Edition, Prentice Hall of India.

REFERENCES

1. Steven Harrington, Computer Graphics Programming Approach , 2nd Edition McGraw Hill.

2.Roy A. Plastock and Gorden Kelley, Theory and Problems of Computer Graphics, Schaum s Outline Series, McGraw Hill.

SEMESTER VI
MAJOR BASED ELECTIVE COURSE (MBE) III
WEB PROGRAMMING WITH PHP AND MYSQL LAB

Internal Marks :40
External Marks :60
Total Marks :100

Instruction Hrs :5
Credit :5
Exam Hrs :3

Objectives

1. To acquire practical knowledge of the Server Side Scripting and database basics.
2. To develop applications using PHP and MySQL.

Exercises

1. Working with PHP operators
2. Working with different types of looping statements using php
3. Working with different types of array using php
4. Working with PHP functions
5. Working with PHP forms
6. PHP form validation
7. Working with PHP math/date function
8. Executing DML and DDL commands using MySQL
9. Joining tables
10. Retrieving data from table using PHP
11. Inserting data into table using PHP
12. Create an application using PHP and MySQL.

VI Semester**Part – V: GENDER STUDIES**

Internal Marks : 25

Instruction Hrs : 1

External Marks: 75

Credit : 1

Total Marks : 100

Exam Hrs : 3

Objectives

- ❖ To make boys and girls aware of each others strengths and weakness.
- ❖ To develop sensitivity towards both genders in order to lead an ethically enriched life.
- ❖ To promote attitudinal change towards a gender balanced ambience and women empowerment.

Unit – I

Concepts of Gender : Sex-Gender-Biological Determinism-Patriarchy-Feminism-Gender Discrimination-Gender Division of Labour –Gender Stereotyping-Gender Sensitivity-Gender Equity-Equality-Gender Mainstreaming-Empowerment.

Unit – II

Women’s Studies Vs Gender Studies : UGC’s Guidelines-VII to XI Plans-Gender Studies: Beijing Conference and CEDAW-Exclusiveness and Inclusiveness.

Unit – III

Areas of Gender Discrimination : Family - Sex Ratio – Literacy – Health – Governance -Religion Work Vs Employment – Market – Media – Politics – Law – Domestic Violence – Sexual Harassment – State Policies and Planning.

Unit – IV

Women Development and Gender Empowerment : Initiatives – International Women’s Decade – International women’s Year – National Policy for Empowerment of Women – women Empowerment Year 2001 – Mainstreaming Global Policies.

Unit – V

Women's Movements and Safeguarding Mechanism : In India National / State Commission for Women (NCW) – All Women Police Station- Family Court – Domestic Violence Act – Prevention of Sexual Harassment at Work Place Supreme Court Guidelines – Maternity Benefit Act – PNDT Act – Hindu Succession Act 2005 – Eve Teasing Prevention Act – Self Help Groups – 73rd and 74th Amendment for PRIS.

REFERENCES

- Bhasin Kamala, Understanding Gender : Gender Basics, New Delhi: women Unlimited, 2004
- Bhasin Kamala, Exploring Masculinity: Gender Basics, New Delhi: women Unlimited, 2004
- Bhasin Kamala, What is Patriarchy?: Gender Basics, New Delhi: women Unlimited, 1993
- Pernau Margrit, Ahmad Imtiaz, Reifeld Hermut (ed.,) Family and Gender : Changing Values in Germany and India, New Delhi : Sage Publications, 2003
- Agarwal Bina, Humphries Jane and Robeyns Ingrid (ed.,) Capabilities, Freedom, and Equality: Amartya Sen's Work from a Gender Perspective, New Delhi : Oxford University Press, 2006
- Rajadurai.S.V, Geetha.V. Themes in Caste Gender And Religion, Tiruchirappalli : Bharathidasn University, 2007
- Misra Geetanjali, Chandiramani Radhika(ed.,) Sexuality, Gender and Rights: Exploring Theory and Practice in South and Southeast Asia, New Delhi: Sage Publication,2005
- Rao Anupama (ed.,) Gender & Caste : Issues in Contemporary Indian Feminism, New Delhi: Kali for Women, 2003
- Saha Chandana, Gender Equity and Gender Equality: Study of Girl Child in Rajasthan, Jaipur: Rawat Publications,2003
- Krishna Sumi,(ed.,) Livelihood and Gender: Equity in Community Resource Management, New Delhi: Sage Publication, 2004
- Paludi.A.Michele(ed.,), Praeger Guide to the Psychology of Gender, London: Praeger Publisher, 2004
- Wharton.S.Army, The Sociology of Gender: An Introduction to Theory and Research, USA: Blackwell Publilshing, 2005.
- Mohanty Manoranjan(ed.,) Class, Caste, Gender: Readings in Indian Government and Politics- 5, New Delhi: Sage Publications, 2004.
- Arya Sadhna, Women, Gender Equality and the State, New Delhi: Deep & Deep Publications, 2000
- Mishra.O.P, **Law Relating to Women & Child**, Allahbad: Central Law Agency, 2001
- Chari Leelavathi, Know Your Rights, Madras; Tamilnadu Social Welfare Board, 1987
- Bhattacharya Malini, Sexual Violence and Law Kolkata; West Bengala Commission for Women, 2002
- Sexual Harassment at the workplace – A Guide, New Delhi; Sakshi, 1999.