Curriculum Book

and

Assessment and Evaluation Scheme

based on

Outcome Based Education (OBE)

and

Choice – Based Credit System (CBCS)

in

Post Graduate Diploma in Computer Application
P.G.D.C.A.

1Year Degree Program

Revised as on 01 August 2023
Applicable w.e.f. Academic Session 2023-24

AKS University
Satna 485001, Madhya Pradesh, India

Faculty of Computer Applications & Information Technology and Sciences
Department of Computer Application & Information Technology

H.O.D.
Department of Computer Science & Application
AKS University, Satna (M.P.)

Dean
Faculty of Engineering & Technology
AKS University
Sherganj, Satna (MP), 485001

Professor B.A. Chopade
Vice - Chancellor
AKS University
Satna, 485001 (M.P.)

A K S University, Satna

Faculty of Computer Applications & Information Technology and Sciences

Department of Computer Application & Information Technology

Curriculum & Syllabus of PGDCA (Post Graduate Diploma in Computer Applications)

(Revised as of 01 August 2023)

CONTENTS

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A K S University

Faculty of Computer Application & Information Technology and Science

Department of Computer Application & Information Technology

Curriculum of PGDCA (Post Graduate Diploma in Computer Application)

(Revised as on 01 August 2023)

Foreword

I am thrilled to observe the updated curriculum of the Computer Application & Information Technology Department for the PGDCA (Post Graduate Diploma in Computer Applications)

Program, which seamlessly integrates the most recent technological advancements and adheres to the guidelines set forth by UGC. The revised curriculum also thoughtfully incorporates the directives of NEP-2020 and the Sustainable Development Goals.

The alignment of course outcomes (COs), Programme Outcomes (POs), and Programme Specific Outcomes (PSOs) has been intricately executed, aligning perfectly with the requisites of NEP-2020 and NAAC standards. I hold the belief that this revised syllabus will significantly enhance the skills and employability of our students.

With immense satisfaction, I hereby present the revised curriculum for the PGDCA (Post Graduate Diploma in Computer Applications) program for implementation in the upcoming session.

Er. Anant Soni

Pro Chancellor & Chairman

01 August 2023

AKS University, Satna

A K S University

Faculty of Computer Application & Information Technology and Science

Department of Computer Application & Information Technology

Curriculum of PGDCA (Post Graduate Diploma in Computer Application)

(Revised as on 01 August 2023)

From the Desk of the Vice-Chancellor

AKS University is currently undergoing a process to revamp its curriculum into an outcome-based approach, to enhance the teaching and learning process. The foundation of quality of quality education lies in the implementation of a curriculum that aligns with both societal and industrial needs, focusing on relevant outcomes. This entails dedicated and inspired faculty members, as well as impactful industry internships. Hence, it is of utmost importance to begin this endeavor by crafting an outcome-based curriculum in collaboration with academia and industry experts. This curriculum design should be informed by the latest technological advancements, market demands, the guidelines outlined in the National Education Policy (NEP) of 2020, and sustainable goals.

I'm delighted to learn that the revised curriculum has been meticulously crafted by the Computer Application & Information Technology Department, in consultation with an array of experts from the Computer Science industry, research institutes, and academia. This curriculum effectively integrates the principles outlined in the NEP-2020 guidelines, as well as sustainable goals. It also adeptly incorporates the latest advancements in Computer Science manufacturing technology.

Furthermore, the curriculum takes into account the specific needs of the Indian Computer Science industry, focusing on the production of cost-effective, high-quality Computer Science. It extends its reach to optimizing power consumption by including insights on waste heat recovery systems utilized in Computer Science plants. This inclusion not only imparts knowledge but also encourages students' independent thinking for potential enhancements in this area.

The curriculum goes beyond theoretical learning and embraces practical applications by incorporating the utilization of industrial and domestic waste in Computer Science production. To enhance students' skills, the curriculum integrates Hands-On Training, industrial visits, on-the-job training experiences, research, and progress. This well-rounded approach ensures that students receive a comprehensive education, fostering their skill development and preparing them for success in the Computer Science industry.

I am confident that the updated curriculum for Computer Application & Information Technology will not only enhance students' technical skills but also contribute significantly to their employability. During the process of revising the curriculum, I am pleased to observe that the Computer Application & Information Technology department has diligently adhered to the guidelines provided by the UGC. Additionally, they have maintained a total credit requirement of 120 for the PGDCA program.

It's worth noting that curriculum revision is an ongoing and dynamic process, designed to address the continuous evolution of technological advancements and both local and global concerns. This ensures that the curriculum remains responsive and attuned to the changing landscape of education and industry. AKS University warmly invites input and suggestions from industry expert technocrats and Alumni students to enhance the curriculum and make it more student-centered. Your valuable insights will greatly contribute to shaping an education that best serves the needs and aspirations of our students.

AKS University, Satna ***Professor B. A. Chopade***

01 August 2023 *Vice-Chancellor*

A K S University

Faculty of Computer Application & Information Technology and Science

Department of Computer Application & Information Technology

Curriculum of PGDCA (Post Graduate Diploma in Computer Application)

(Revised as on 01 August 2023)

Preface

As part of our commitment to ongoing enhancement, the Department of Computer Application & Information Technology consistentlyreviews and updates its PGDCA program curriculum every three years. Through thisprocess, we ensure that the curriculum remains aligned with the latest technological advancements, as well as local and global industrial and social demands.

During this procedure, the existing curriculum for the PGDCA Program undergoes evaluation by a panel of technocrats, industry specialists, and academics. Following meticulous scrutiny, the revised curriculum has been formulated and is set to be implemented starting from August 01, 2023.This implementation is contingent upon the endorsement of the curriculum by the University's Board of Studies and Governing Body.

This curriculum closely adheres to the UGC model syllabus distributed in 2020. It seamlessly integrates the guidelines set forth by the Ministry of Higher Education, Government of India, through NEP-2020, as well as the principles of Sustainable Development Goals. To foster the holistic skill development of students, a range of practical activities, including Hands-On Training, Industrial Visits, Project planning and execution, Report Writing, Seminars, and Industrial on-the-job training, have been incorporated. Furthermore, in alignment with AICTE's directives, the total credit allocation for the PGDCA program is capped at 120 credits.

To ensure a comprehensive learning experience, detailed evaluation schemes and rubrics have also been meticulously provided.

For each course, a thorough mapping of Course Outcomes, Program Outcomes, and Programme Specific Outcomes has been undertaken. As the course syllabus is meticulously developed, various elements such as session outcomes, laboratory instruction, classroom instruction, self-learning activities, assignments, and mini-projects are meticulously outlined.

We hold the belief that this dynamic curriculum will undoubtedly enhance the independent thinking, skills, and overall employability of the students.

Professor Akhilesh A. Waoo
Associate Dean and Head CS/IT

Introduction

AKS University proudly stands as a pioneer, being the first in the nation to introduce a comprehensive 3-year *Post Graduate Diploma in Computer Applications (PGDCA)* program back in 2012. This innovative curriculum has been meticulously crafted to align with the dynamic needs of the computer and information industry and the most current technological advancements. Currently, a vibrant community of around hundred students is actively engaged in pursuing their PGDCA within this department. The Faculty of Computer Applications & Information Technology and Sciences boasts cutting-edge laboratories that serve as hubs for immersive hands-on training, enabling students to delve into practical applications of their learning. The program incorporates both in house training and sandwich apprenticeship training, vital components that enrich the educational journey. Distinguished by a faculty composed of computer industry experts who bring with them a wealth of industrial experience, the department combines robust classroom instruction with practical and industrial acumen. This unique blend empowers our students to confidently contribute to software development and make a significant impact in the field.

Vision

To emerge as power house of information Technology and Allied areas developing competent computer professionals to meet the dynamic needs of disruptive technologies.

Mission

M01: To impart technical knowledge through innovative teaching, research and consultancy

MO2: Provides state-of-the-art facilities and internationally recognized faculty.

MO3: To adapt to the dynamic needs of industries through curriculum update

MO4: Promotes partnerships with industry and community and electrical energy in cement manufacture and environmental needs.

MO5: To produce competent graduates with professional ethics and life skills.

Program Educational Objectives (PEO)

PEO01: To develop technical and managerial skills among the students with practical knowledge to work in cement manufacturing unit and able to handle day to day plant problems.

PEO02: To develop R&D temperament among the students for development, innovation and sustainable technology in cement manufacturing process.

POE03: To develop ethical principles among the students and commitment to fulfilling international, national and local needs and social responsibilities with his/her professional excellence.

PEO04: Ability to understand the impact of professional engineering solutions in societal, economic and environmental contexts and demonstrate knowledge and need for sustainable development

Program Outcomes (POs)

PO1: Computational information: Appreciate and apply mathematical organization, computing and domain information for the conceptualization of computing models from clear harms.

PO2: Difficulty Analysis: Talent to classify, significantly evaluate and prepare complex computing problems using fundamentals of computer knowledge and request domains.

PO3: Drawing / Improvement of Solutions: Facility to transform composite production scenarios and present-day issues into problems, explore, recognize and propose included solutions using rising technologies.

PO4: Accomplish Investigations of Compound Computing Troubles: Ability to invent and ways experiments interpret data and present well up to date conclusions.

PO5: Current Implement Procedure: Skill to select recent computing tools, skills and techniques compulsory for original software solutions

PO6: Proficient Principles: Facility to apply and give expert principles and cyber systems in a universal monetary situation.

PO7: Ultimate Education: Identify the need for and enlarge the ability to appoint in permanent education as a Computing qualified.

PO8: Mission Administration: Skill to recognize administration and computing philosophy with computing acquaintance to supervise projects in multidisciplinary environments.

PO9: Announcement Usefulness: Converse successfully with the computing society as well as culture by being able to know successful documentations and presentations.

PO10: Public & Ecological Alarm: Ability to make out cost-effective, green, public, fitness, authorized, moral issues concerned in the use of processor expertise and other significant tasks applicable to qualified observers.

PO11: Personality & Group Job: Ability to job as a part or manager in various teams in multidisciplinary situations.

PO12: Modernization and Private Enterprise: Classify opportunities, private enterprise dream and use of original thoughts to build worth and means for the betterment of the human being and the world.

Program Specific Outcomes (PSOs)

On completion of PGDCA program, the students will achieve the following program specific outcomes:-

PSO1: An ability to enhance the application of knowledge of theory subjects in diverse fields.

PSO2: Develop language proficiency to handle corporate communication demands.

PSO3: Preparing students in various disciplines of technologies such as computer applications, computer networking, software engineering, JAVA, database concepts and programming.

PSO4: In order to enhance programming skills of the young IT professionals, the concept of project development in using the technologies learnt during the semester has been introduced.

Mapping of PEOs with Mission of the Department

PEO	M1	M2	M3	M4
PEO1	3	2	3	2
PEO2	2	2	2	3
PEO3	2	3	2	1
PEO4	2	2	3	3

1*: Slight (Low) 2: Moderate (Medium) 3: Substantial (High) "-": No correlation*

General Course Structure & Scheme

1. Definition of Credit

1 Hr. Lecture (L) per week	1 Credit
1 Hr. Tutorial (T) per week	1 Credit
2 Hours Practical (P) per week	1 Credit

2. Range of Credits:

In the light of the fact that a typical Model one-year Post Graduate diploma program in computer application has about 44 credits, the total number of credits proposed for the one-year Post Graduate Diploma in Computer Applications is kept as 44 considering NEP-20 and NAAC guidelines.

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Semester-wise Structure and Curriculum

Semester-I

Sr. no	Subject Code	Subject Name	Group	L	T	P	Credit
1	91CA105	Fundamentals of Computers and Information Technology	Computer Science	4			4
2	91CA106	PC Packages (Word, Excel, PowerPoint)	Computer Science	4		4	6
3	**Elective-1**		Computer Science	4		4	6
	91CA107-A	Database Using MySQL					
	91CA107-B	Database Using MS Access					
4	**Elective-2**		Computer Science	4		4	6
	91CA108-A	Fundamentals of Multimedia					
	91CA108-B	Programming with VB.Net					
		Total		16		12	22

Semester-II

Sr.no	Subject Code	Subject Name	Group	L	T	P	Credit
1	91CA205	IT Trends and Technologies	Computer Science	4			4
2	91CA206	Internet and Web Designing	Computer Science	4		4	4
3	**Elective-3**		Computer Science	4		4	4
	91CA207-C	DTP with Page Maker - Photoshop and Typing Skills					
	91CA207-B	Financial Accounting with Tally					
4	**Elective-4**			4		4	4
	91CA208-A	Multimedia with Corel Draw, Premier and Sound Forge	Computer Science				
	91CA208-C	Programming with ASP.net Aptitude and General Awareness					
		Total		16		12	22

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Semester-I

Course Code: 91CA105

Course Title : Fundamentals of Computers and Information Technology

Pre-requisite: Basics of Computer.

Rationale: Introduce students to the basics of Fundamentals of Computer and Information Technology. The student should be able to choose appropriate software/hardware, memory, input/output devices. To introduce students to the basic block of diagram, computer coding system, network & its types, Dos & Linux.

Course Outcomes:

91CA105.1: Analyzing information that works on computer systems and various storage devices.
91CA105.2: Analyzing various Work Patterns for Input Output Devices.
91CA105.3: Determining software and its functions and types along with appropriate information for computer coding systems.
91CA105.4: Analyzing Communication Process and uses of Communication & IT, Communication Channels and types of Networks.
91CA105.5: Analyzing different task-patterns in DOS and Linux.

Scheme of Studies:

Board of Study	Course Code	Course Title	Scheme of studies(Hours/Week)					Total Credits (C)
			Cl	LI	SW	SL	Total Study Hours (CI+LI+SW+SL+T)	
Program Core (PCC)	91CA105	Fundamentals of Computers and Information Technology	4	0	2	1	7	4

Legend: **CI:** Classroom Instruction (Includes different instructional strategies i.e. Lecture (L) and Tutorial (T) and others),
LI: Laboratory Instruction (Includes Practical performances in laboratory workshop,field or other locations using different instructional strategies)
SW: Sessional Work (includes assignment, seminar, mini project etc.),
SL: Self Learning,]]
C: Credits.

Note: SW & SL has to be planned and performed under the continuous guidance and feedback teachers ensure outcome of Learning.

Scheme of Assessment:

Theory

Board of Study	Couse Code	Course Title	Scheme of Assessment (Marks)							
			Progressive Assessment (PRA)						End Semester Assessment (ESA)	Total Marks (PRA+ ESA)
			Class/Home Assignment 5 number 3 marks each (CA)	Class Test 2 (2 best out of 3) 10 marks each (CT)	Seminar one (SA)	Class Activity any one (CAT)	Class Attendance (AT)	Total Marks (CA+CT+SA+ CAT+AT)		
PCC	91CA105	Fundamentals of Computers and Information Technology	15	20	5	5	5	50	50	100

Course-Curriculum Detailing:

This course syllabus illustrates the expected learning achievements, both at the course and session levels, which students are anticipated to accomplish through various modes of instruction including Classroom Instruction (CI), Laboratory Instruction (LI), Sessional Work (SW), and Self-Learning (SL). As the course progresses, students should showcase their mastery of Session Outcomes (SOs), culminating in the overall achievement of Course Outcomes (COs) upon the course's conclusion.

91CA105.1: Analyzing information that works on computer systems and various storage devices.

Approximate Hours

Item	Appx. Hrs.
Cl	12
LI	0
SW	2
SL	1
Total	15

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)

SO1.1 Overview & basic operation on Block diagram of Computer along with various storage devices. **SO1.2** Working with Input & Output devices. **SO1.3** Working on Software's & Computer coding system. **SO1.4** Working on Communication & IT along with types of Network. **SO1.5** Working with basic operation on DOS & Linux.		**Unit-1. Computer System & Various storage devices** 1.1 Explain Computer system concept, 1.2 applications, 1.3 advantages & disadvantages. 1.4 Review of various types of PCs. 1.5 Basic Operations on Block diagram of Computer. 1.6 Explain Primary Vs Secondary Memory. 1.7 Operation with Mother Board. 1.8 Explain History & 1.9 Generation of Computer-1 1.10 Generation of Computer-2 1.11 Describe Various Storage devices-1 1.12 Describe Various Storage devices-2	1. Study of Special Purpose Computer. 2. Study of SSD.

SW-1 Suggested Sessional Work (SW):

a. Assignments:

1. Explain configurations of Computer system.
2. Working with Mother Board.
3. Describe Blue Ray Disc & flash drives.

b. Other Activities (Specify):

Seminar & GD

91CA105.2: Analyzing various Work Patterns for Input Output Devices.

Approximate Hours

Item	Appx. Hrs.
Cl	12
LI	0

SW	2
SL	1
Total	15

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)
SO2.1 Analyzing to Input & Output devices. **SO2.2** Discuss working with various Input devices. **SO2.3** Describe Printer & Plotter. **SO2.4** Concept and Working with peripheral devices. **SO2.5** Concept and Working with Video Standard.		**Unit-2 Input & Output Devices.** 2.1 Introduction Input & 2.2 Output devices. 2.3 Explain BCR & 2.4 QR code. 2.5 What is Monitor? 2.6 Explain characteristics and 2.7 types of monitors. 2.8 What is video standard? 2.9 Explain Printer & 2.10 its types. 2.11 Explain Sound Card & 2.12 Speakers.	1. Study of voice recognition. 2. Study of Interlaced/Non-Interlaced**.**

SW-2 Suggested Sessional Work (SW):

a. Assignments:

1. Describe any 4 input devices with suitable diagram.
2. Explain MIC, OCR, and OMR.
3. Explain Impact & Non-Impact Printer.

b. Other Activities(Specify):

Seminar and Presentation

91CA105.3: Determining software and its functions and types along with appropriate information for computer coding systems.

Approximate Hours

Item	Appx. Hrs.
Cl	12
LI	0
SW	2

SL	1
Total	15

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)
SO3.1. understanding Software's & its types. **SO3.2.** Discuss OS & its function. **SO3.3.** Describe Programming Languages. **SO3.4.** Describe types of Application Software. **SO3.5.** Describe Computer Coding System.		**Unit-3 : Software & Computer Coding System** 3.1 Explain need of software & its types. 3.2 Explain definition of Operating system & its function. 3.3 What is device drivers & Utility Program? 3.4 Describe programming languages & their merits & demerits. 3.5 Uses of Assemblers, 3.6 Compilers and Interpreter. 3.7 What is Application Software? Explain its types. 3.8 What is ASCII, ISCII and Unicode? 3.9 Explain Number System of Computer. 3.10 How to conversion on Binary, 3.11 Octal, 3.12 Hexadecimal & Decimal.	1. Study of some example of number system conversions. 2. Study of gaming & ERP software's.

SW-3 Suggested Sessional Work (SW):

a. Assignments:

1. What is software? Explain its types.
2. Discuss the Programming Languages.
3. Explain number system of Computer.

b. Other Activities(Specify):
GD

91CA105.4: Analyzing Communication Process and uses of Communication & IT, Communication Channels and types of Networks.

Approximate Hours

Item	Appx. Hrs.
Cl	12
LI	0
SW	2
SL	1
Total	15

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)
SO4.1. understanding Use of Communication and IT. **SO4.2.** understanding Component of communication & its type. **SO4.3.** Describe Communication Channels. **SO4.4.** Describe types of connections. **SO4.5.** Discuss topologies & component of LAN.		**Unit-4 : Use of Communication & Types of Networks** 4.1. What is Communication? 4.2. Explain Uses & component of Communication. 4.3. Explain Communication types. 4.4. Describe Communication channel with suitable example & diagram. 4.5. What is connection? 4.6. Explain its types & advantages/disadvantages. 4.7. What is Network? 4.8. Describe its types with suitable example. 4.9. Explain Topology of LAN with structure, 4.10. uses & Advantages & disadvantages. 4.11. 4.7 Describe Components of LAN and 4.12. Advantages &	1. Study use of Communication and IT. 2. Study of client/server & peer-to-peer networks.

		disadvantages.	

SW-4 Suggested Sessional Work (SW):

a. Assignments:

1. What is Communication? Explain its process & components.
2. Explain Modem-working and its characteristics.
3. Explain Topologies with structure.

b. Other Activities(Specify):

PPT

91CA105.5: Analyzing different task-patterns in DOS and Linux.

Approximate Hours

Item	Appx. Hrs.
Cl	12
LI	0
SW	2
SL	1
Total	15

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)
SO5.1. Discuss to DOS. **SO5.2.** Describe Drive name & FAT. **SO5.3.** Discuss File and Directory Structure and Naming Rules. **SO4.4.** Discuss Booting process. **SO5.5.** Analyzing history & feature of Linux.		**Unit 5: DOS & Linux** 5.1. Introduction of DOS. 5.2. What is FAT? 5.3. Explain File & Directory Structure & Naming Rules. 5.4. What is Booting Process & Dos system files? 5.5. Using Internal & External Commands in Dos. 5.6. Concepts of Free/Open Source and proprietary software,	1. Study of using charts in presentation. 2. Study of Create emails, send and receive emails in outlook.

		5.7. applications and use of computer in various fields. 5.8. What is Linux? Explain its history & feature. 5.9. Describe Hardware Requirements of Linux & Various flavors of Linux. 5.10. Explain Linux Standard Directories, Functions of' Profile and Login Files in Linux. 5.11. 5.10 Explain Linux Kernel & Login and Logout from Linux System. 5.12. Explain Linux commands.	

SW-5 Suggested Sessional Work (SW):

a. Assignments:

1. What is DOS? Explain Internal & External commands.
2. Differentiate DOS & Linux.
3. Explain File & Directory Structure & Naming Rules.

b. **Other Activities (Specify):**

Seminar & GD

Brief of Hours suggested for the Course Outcome

Course Outcomes	Class Lecture (Cl)	Laboratory Instruction (LI)	Sessional Work (SW)	Self-Learning (Sl)	Total hour (Cl+SW+Sl)
91CA105.1: Analyzing information that works on computer systems and various storage	12	0	2	1	15

devices.					
91CA105.2: Analyzing various Work Patterns for Input Output Devices.	12	0	2	1	15
91CA105.3: Determining software and its functions and types along with appropriate information for computer coding systems.	12	0	2	1	15
91CA105.4: Analyzing Communication Process and uses of Communication & IT, Communication Channels and types of Networks.	12	0	2	1	15
91CA105.5: Analyzing different task-patterns in DOS and Linux.	12	0	2	1	15
Total Hours	60	0	10	5	75

Suggestion for End Semester Assessment

Suggested Specification Table(ForESA)

CO	Unit Titles	Marks Distribution			Total Marks
		R	U	A	
91CA105.1	Analyzing information that works on computer systems and various storage devices.	04	04	0	08
91CA105.2	Analyzing various Work Patterns for Input Output Devices.	05	04	01	10
91CA105.3	Determining software and its functions and types along with appropriate information for computer coding systems.	04	05	03	12

91CA105.4	Analyzing Communication Process and uses of Communication & IT, Communication Channels and types of Networks.	05	03	02	10
91CA105.5	Analyzing different task-patterns in DOS and Linux.	03	03	04	10
Total		06	17	27	50

Legend: R: Remember, U: Understand, A: Apply

The end of semester assessment for Problem Solving and Programming will be held with written examination of 50 marks.

Suggested Learning Resources:

a. Books:

S. No.	Title	Author	Publisher	Edition &Year
1	"Computer fundamentals"	priti sinha	BPB Publication	6th Edition, 9 July 2017
2	" Fundamentals of Computers "	By Reema Thareja.	OUP India	2nd Edition, 2020
3	" Handbook of Computer Fundamentals "	By Dr. Nasib Singh Gill	Khanna Book Publishing Company	First Edition ,1 January 2016
4	"Computers Today "	By A. Ravichandran	Khanna Publishers	First Edition, 2009

Curriculum Development Team

1. Mr. Roopesh Jaiswal, Principal, Department of Computer Science.
2. Mrs. Rashmi Gautam, Teaching Associate, Department of Computer Science.
3. Mrs. Anamika Mishra, Teaching Associate, Department of Computer Science.
4. Mrs. Aarti Singh Parihar, Teaching Associate, Department of Computer Science.
5. Ms. Arjita Singh, Teaching Associate, Department of Computer Science.
6. Mr. Imran Ahmad Ansari Teaching Associate, Department of Computer Science.

COs, POs and PSOs Mapping

Program: PGDCA Computer Science

Course Code: 91CA105

Course Title: Fundamentals of Computers and Information Technology

Course Outcomes	Program Outcomes												Program Specific Outcome				
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct studies of difficult problems	Utilization of modern tools	Engineers and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-longlearning	Use fundamental knowledge of math, science, and engineering to comprehend, evaluate, and create computer Programmes in the fields of algorithms, multimedia, big data analytics, machine learning, artificial intelligence, and networking for the effective design of computer-based systems of various complexity	Utilize relevant methods and cutting-edge hardware and software engineering tools to develop and integrate computer systems and related technologies. This PSO2 also encourages lifelong learning for the advancement of technology and its use in multidisciplinary settings	Applying professional engineering solutions for societal improvement while taking into account the environmental context, being conscious of professional ethics, and being able to effectively communicate.	Learn and use the most recent Artificial Intelligence and Data Science technologies in the fields of engineering and computer science	Recognize and examine issues in real life, then offer creative software solutions with the help of AI and Data Science Technologies.
CO1: Analyzing information that works on computer systems and various storage devices.	1	3	2	2	2	2	3	1	2	1	3	2	2	3	1	2	2
CO2: Analyzing various Work Patterns for Input Output Devices.	2	3	2	2	1	2	3	1	1	1	2	2	2	2	2	2	2
CO3: Determining software and its functions and types along with appropriate information for computer coding systems.	2	3	3	2	1	3	3	1	1	2	3	3	1	1	2	2	2
CO4: Analyzing Communication Process and uses of Communication & IT, Communication Channels and types of Networks	3	2	3	2	1	3	3	1	2	1	3	3	2	3	1	2	2
CO5: Analyzing different task-patterns in DOS and Linux.	2	2	3	2	1	3	3	1	1	1	2	2	2	3	1	1	2

Legend: 1 – Low, 2 – Medium, 3 – High

Course Curriculum Map

POs & PSOs No.	COs No.& Titles	SOs No.	Classroom Instruction(CI)	Self-Learning(SL)
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO1: Analyzing information that works on computer systems and various storage devices.	SO1.1 SO1.2 SO1.3 SO1.4 SO1.5	Unit-1 : Computer System & Various storage devices 1.1,1.2,1.3,1.4,1.5,1.6,1.7.1.8,1.9,1.10,1.11,1.12	As mentioned in abovepage number
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO2: Analyzing various Work Patterns for Input Output Devices.	SO2.1 SO2.2 SO2.3 SO2.4 SO2.5	Unit-2: Input & Output Devices. 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7.2.8,2.9,2.10,2.11,2.12	
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO3: Determining software and its functions and types along with appropriate information for computer coding systems.	SO3.1 SO3.2 SO3.3 SO3.4 SO3.5	Unit-3 **:** Software & Computer Coding System 3.1,3.2,3.3,3.4,3.5,3.6,3.7,3.8,3.9,3.10,3.11, 3.12	
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO4: Analyzing Communication Process and uses of Communication & IT, Communication Channels and types of Networks.	SO4.1 SO4.2 SO4.3 SO4.4 SO4.5	Unit-4: Use of Communication & Types of Networks 4.1,4.2,4.3,4.4,4.5,4.6,4.7.4.8,4.9,4.10,4.11,4.12	
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO5: Analyzing different task-patterns in DOS and Linux.	SO5.1 SO5.2 SO5.3 SO5.4 SO5.5	Unit-5 : DOS & Linux 5.1,5.2,5.3,5.4,5.5,5.6,5.7,5.8,5.9,5.10,5.11.5.12	

A K S University

Faculty of Computer Application & Information Technology and Science

Department of Computer Application & Information Technology

Curriculum of PGDCA (Post Graduate Diploma in Computer Application)

(Revised as on 01 August 2023)

Semester-I

Course Code: 91CA106

Course Title : PC Packages (Word, Excel, PowerPoint)

Pre-requisite: General-purpose office applications.

Rationale: Introduce students the basic of pc package suite and operating system. The student should be able to choose appropriate software and use it for a specific office automation work. To familiarize students with basic paradigms and market work used to design advanced office solution. Students should be able to understand different features of office suites concerning their computation difficulties. To introduce the students to recent developments in the area of office work.

Course Outcomes:

91CA106.1: Analyze the working information/practical performance on Operating System, Accessories & Internet.
91CA106.2: Analyze different working paradigms to word processors (MS-Word).
91CA106.3: Determine the appropriate advance working paradigms & graphics to word processors (MS-Word).
91CA106.4: Analyze different working paradigms (formatting, charts, and datasets) to spreadsheet (MS-Excel).
91CA106.5: Analyze different working paradigms (transition, customization, and slide) to presentation software (MS-PowerPoint) and Outlook Express.

Scheme of Studies:

Board of Study	Course Code	Course Title	Scheme of studies(Hours/Week)					Total Credits (C)
			Cl	LI	SW	SL	Total Study Hours (CI+LI+SW+SL+T)	
Program Core (PCC)	91CA106	PC Packages	4	4	2	1	11	6

Legend: **CI:** Classroom Instruction (Includes different instructional strategies i.e. Lecture (L) and Tutorial (T) and others),
LI: Laboratory Instruction (Includes Practical performances in laboratory workshop, field or other locations using different instructional strategies)
SW: Sessional Work (includes assignment, seminar, mini project etc.),

SL: Self Learning,

C: Credits.

Note: SW & SL has to be planned and performed under the continuous guidance and feedback teachers ensure outcome of Learning.

Scheme of Assessment:

Theory

Board of Study	Couse Code	Course Title	Scheme of Assessment (Marks)							
			Progressive Assessment (PRA)						End Semester Assessment (ESA)	Total Marks (PRA+ ESA)
			Class/Home Assignment 5 number 3 marks each (CA)	Class Test 2 (2 best out of 3) 10 marks each (CT)	Seminar one (SA)	Class Activity any one (CAT)	Class Attendance (AT)	Total Marks (CA+CT+SA+ CAT+AT)		
PCC	91CA106	PC Packages	15	20	5	5	5	50	50	100

Practical

Board of Study	Couse Code	Course Title	Scheme of Assessment (Marks)						
			Progressive Assessment (PRA)					End Semester Assessment (ESA)	Total Marks (PRA+ ESA)
			Class/Home Assignment 5 number 3 marks each (CA)	Viva1 (5)	Viva2 (5) (SA)	Class Attendance (AT)	Total Marks (CA+CT+SA+ CAT+AT)		
PCC	91CA106	PC Packages	35	5	5	5	50	50	100

Course-Curriculum Detailing:

This course syllabus illustrates the expected learning achievements, both at the course and session levels,

which students are anticipated to accomplish through various modes of instruction including Classroom Instruction (CI), Laboratory Instruction (LI), Sessional Work (SW), and Self-Learning (SL). As the course progresses, students should showcase their mastery of Session Outcomes (SOs), culminating in the overall achievement of Course Outcomes (COs) upon the course's conclusion.

91CA106.1: Analyze the working information/practical performance on Operating System, Accessories & Internet.

Approximate Hours

Item	Appx. Hrs.
Cl	12
LI	12
SW	2
SL	1
Total	27

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)
SO1.1 Overview & basic operation on window operating system. **SO1.2** Working on files and folders. **SO1.3** Working on Accessories and Control panel. **SO1.4** Concept of Browser, WWW and various internet terminology. **SO1.5** Working with Google Apps and various MP online services.	**LI1.1.** Basic Operations like: start a computer, login, logoff, hibernate, shutdown etc. **LI1.2.** Working with Creating & Using Shortcuts keys **LI1.3.** Working with various Accessories and **LI1.4.** Working with Control panel. **LI1.5.** Procedure to	**Unit-1. OS, Accessories & Internet** 1.1 Review of various Operating System. 1.2 Basic Operations like: start a computer, login, 1.3 logoff, hibernate, shutdown etc. 1.4 Personalizing Desktop. 1.5 Operation with files & folders like:	1. Study of disk cleanup & disk Defragmentation 2. Study the Procedure of plug in & plug out.

	pay electricity bills **LI1.6.** Procedure to downloading e-books.	create, rename, move delete, cut copy paste. 1.6 Working with notepad, 1.7 WordPad, 1.8 calculator etc. 1.9 Procedure to set system languages. 1.10 Procedure to apply aadhar card& 1.11 passport online. **1.12** Google app installation.	

SW-1 Suggested Sessional Work (SW):

a. Assignments:

1. Explain enhancing system performance.
2. Working with math input panel & calculator.
3. How to apply pan card & procedure to pay service tax.

b. Other Activities (Specify):

Seminar

91CA106.2: Analyze different working paradigms to word processors (MS-Word).

Approximate Hours

Item	Appx. Hrs.
Cl	12
LI	12
SW	2
SL	1
Total	27

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)
SO2.1 Introduction and comparison of various office suites **SO2.2** MS-Word and Working With Its IDE **SO2.3** Discuss working with various Text Enhancements **SO2.4** Explain Printing & various print options **SO2.5** Concept and Working with table	**LI2.1.** Explain Libre Office suite. **LI2.2.** Working with ribbon. **LI2.3.** Explain working with documents. **LI2.4.** Explain working with page & **LI2.5.** Explain working with print setup. **LI2.6.** working with table.	2.1 Unit-2 MS Word & Tables 2.2 Introduction to MS-office & 2.3 its comparison with different suits. 2.4 Explain creation a document using different techniques. 2.5 What is formatting explain font 2.6 Paragraph formatting. 2.7 What is list? 2.8 Explain Bullet & Numbering. 2.9 Spell & grammar checker. 2.10 What is header & Footer? 2.11 Explain various header & footer options. 2.12 Working with table.	1. Study of page setup in detail. 2. Study of table and various Operation like entering, editing, Conversion to and from text**.**

SW-2 Suggested Sessional Work (SW):

a. Assignments:

1. Write minimum software requirement for any office suites software.
2. Explain page layout with suitable diagram.

b. Other Activities(Specify):

Seminar and Presentation

91CA106.3: Determine the appropriate advance working paradigms & graphics to word processors (MS-Word).

Approximate Hours

Item	Appx. Hrs.

Cl	12
LI	12
SW	2
SL	1
Total	27

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)
SO3.1. understanding clipboard & indentation **SO3.2.** Explain endnote & footnote. **SO3.3.** Describe watermark. **SO3.4.** Describe illustrations. **SO3.5.** Explain Mail merge.	**LI3.1.** Construct a Procedure for clipboard options. **LI3.2.** Make use of adding references in a documents. **LI3.3.** Build graphics & its Importation in document. **LI3.4.** Utilization of word art & drop cap. **LI3.5.** Utilizing mail merge concept for mailing 10 documents. **LI3.6.** Explain Macro.	**Unit-3 : Advance features of Word & Graphics** 3.1 Explain thesaurus & 3.2 auto text in MS word. 3.3 Explain column & 3.4 section Break in Table. 3.5 What is watermark? 3.6 How to apply in our documents. 3.7 Inserting equation & symbols. 3.8 How to insert smart art & shapes in documents. 3.9 What is mail merge? 3.10 Explain mail merge wizard. 3.11 Macro introduction 3.12 and its uses.	1. Study of using themes.

SW-3 Suggested Sessional Work (SW):

a. Assignments:

1. Explain charts in our document with suitable diagram.
2. Discuss the hyperlink & bookmark in links.
3. Explain comments in documents.

b. Other Activities(Specify):

GD & PPT

91CA106.4: Analyze different working paradigms (formatting, charts, and datasets) to spreadsheet

(MS-Excel).

Approximate Hours

Item	Appx. Hrs.
Cl	10
LI	12
SW	2
SL	1
Total	25

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)
SO4.1. understanding spreadsheet basic & features. **SO4.2.** understanding concept of workbook & worksheet. **SO4.3.** Describe creating spreadsheet using wizard. **SO4.4.** Describe formatting. **SO4.5.** Explain charts parts & its terminology.	**LI4.1.** Construct a Procedure for creating workbook. **LI4.2.** Make use of referencing cell in an Excel. **LI4.3.** Build charts & its Importation in Excel. **LI4.4.** Utilization of formulas & its uses. **LI4.5.** Utilizing data tools. **LI4.6.** Explain protected sheet & work book.	**Unit-4 : MS-Excel** 4.1. Creating a new workbook using wizard. 4.2. Explain all operations perform in worksheet. 4.3. Entering and editing formulas. 4.4. How to work with cell reference. 4.5. What is sorting? 4.6. How to apply in our sheet. 4.7. What is filter? 4.8. How to apply in data. 4.9. Changing column widths and Row heights. 4.10. Explain different types of charts in excel.	1. Study of using auto text in excel. 2. Study of using Printing of Workbook & Worksheets with various options.

SW-4 Suggested Sessional Work (SW):

a. Assignments:

1. Discuss applying mathematical & text function in sheet.
2. Explain consolidate & data Validation.
3. How to print and delete charts.

b. Other Activities(Specify):

PPT

91CA106.5: Analyze different working paradigms (transition, customization, and slide) to presentation software (MS-PowerPoint) and Outlook Express.

Approximate Hours

Item	Appx. Hrs.
Cl	14
LI	12
SW	2
SL	1
Total	29

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)
SO5.1. Describe PowerPoint & area of uses. **SO5.2.** Explain Presentation. **SO5.3.** Apply Sounds and movie **SO4.4.** Discuss advance slide option. **SO5.5.** Discuss Handout master & Notes Master.	**LI5.1.** Creating a new Presentation using wizard. **LI5.2.** Make uses of slides & different view. **LI5.3.** Using Animation and Transitions in presentation. **LI5.4.** Printing Presentations. **LI5.5.** Configuration and using Outlook Express. **LI5.6.** Create emails, send and receive emails in outlook.	**Unit 5: MS-PowerPoint & Outlook Express** 5.1. How to create PPT using wizard. 5.2. Basic operation on presentation. 5.3. Using Slides & 5.4. its different views. 5.5. Working with Notes, Handouts, and Columns & Lists. 5.6. Using Adding Graphics, shapes,	1. Study of using charts in presentation. 2. Study of Create emails, send and receive emails in outlook.

		screenshots, Smart Art. 5.7. Working with PowerPoint Objects. 5.8. Change Slide backgrounds, Change Slide Size. 5.9. Using Animation and Transitions in Presentation. 5.10. Advanced Slide options: Manual & Automatic, Printing Presentations, Notes. 5.11. Handouts with print Option Slide Master. 5.12. Handout Master and Notes Master. 5.13. What is outlook express? Explain features & uses. 5.14. Configuration and using Outlook Express for accessing emails in office. 5.15. Add e-mail accounts to Outlook.	

SW-5 Suggested Sessional Work (SW):

a. Assignments:

1. Explain creating a PowerPoint Presentation.
2. Differentiate SmartArt & shapes in PPT.
3. How to print presentation.

b. **Other Activities (Specify):**

PPT

Brief of Hours suggested for the Course Outcome

Course Outcomes	Class Lecture (Cl)	Laboratory Instruction (LI)	Sessional Work (SW)	Self-Learning (Sl)	Total hour (Cl+SW+Sl)
91CA106.1: Analyze the working information/practical performance on Operating System, Accessories & Internet.	12	12	2	1	27
91CA106.2: Analyze different working paradigms to word processors (MS-Word).	12	12	2	1	27
91CA106.3: Determine the appropriate advance working paradigms & graphics to word processors (MS-Word).	12	12	2	1	27
91CA106.4: Analyze different working paradigms (formatting, charts, and datasets) to spreadsheet (MS-Excel).	10	12	2	1	25
91CA106.5: Analyze different working paradigms (transition, customization, and slide) to presentation software (MS-PowerPoint) and	14	12	2	1	29

Outlook Express.					
Total Hours	60	60	10	5	135

Suggestion for End Semester Assessment

Suggested Specification Table(ForESA)

CO	Unit Titles	Marks Distribution			Total Marks
		R	U	A	
91CA106.1	Analyze the working information/practical performance on Operating System, Accessories & Internet.	02	03	03	08
91CA106.2	Analyze different working paradigms to word processors (MS-Word).	02	03	05	10
91CA106.3	Determine the appropriate advance working paradigms & graphics to word processors (MS-Word).	02	03	07	12
91CA106.4	Analyze different working paradigms (formatting, charts, and datasets) to spreadsheet (MS-Excel).	-	03	7	10
91CA106.5	Analyze different working paradigms (transition, customization, and slide) to presentation software (MS-PowerPoint) and Outlook Express.	-	05	05	10
Total		06	17	27	50

Legend: R: Remember, U: Understand, A: Apply

The end of semester assessment for Problem Solving and Programming will be held with written examination of 50 marks.

Suggested Learning Resources:

a. Books:

S. No.	Title	Author	Publisher	Edition &Year
1	"Windows 8.1 in Depth"	by Paul Mcfedries, Brian Knittel	Pearson Education	2015

2	"Office 2013 in Simple Steps"	by Kogent Learning Solutions, Inc.	Dreamtech Press India Pvt. Ltd	1 January 2013
3	"Microsoft Office Professional 2013: Step by Step"	by Melton BethSchorr Ben M.Legault EricCouch AndrewRusen Ciprian AdrianDodge MarkSwinford Echo	Prentice Hall India Learning Private Limited	1 January 2014
4	"Office 2013 Digital Classroom"	by Walter Holland, Aci Creative Team	Wiley	1 January 2013

Curriculum Development Team

1. Mr. Roopesh Jaiswal, Principal, Department of Computer Science.
2. Mrs. Rashmi Gautam, Teaching Associate, Department of Computer Science.
3. Mrs. Anamika Mishra, Teaching Associate, Department of Computer Science.
4. Mrs. Aarti Singh Parihar, Teaching Associate, Department of Computer Science.
5. Ms. Arjita Singh, Teaching Associate, Department of Computer Science.
6. Mr. Imran Ahmad Ansari Teaching Associate, Department of Computer Science.

COs, POs and PSOs Mapping

Program: PGDCA Computer Science
Course Code: 91CA106
Course Title: PC-PACKAGE (WORD, EXCEL, POWERPOINT)

Course Outcomes	Program Outcomes												Program Specific Outcome				
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct studies of difficult problems	Utilization of modern tools	Engineers and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-longlearning	Use fundamental knowledge of math, science, and engineering to comprehend, evaluate, and create computer Programmes in the fields of algorithms, multimedia, big data analytics, machine learning, artificial intelligence, and networking for the effective design of computer-based systems of various complexity	Utilize relevant methods and cutting-edge hardware and software engineering tools to develop and integrate computer systems and related technologies. This PSO2 also encourages lifelong learning for the advancement of technology and its use in multidisciplinary settings	Applying professional engineering solutions for societal improvement while taking into account the environmental context, being conscious of professional ethics, and being able to effectively communicate.	Learn and use the most recent Artificial Intelligence and Data Science technologies in the fields of engineering and computer science	Recognize and examine issues in real life, then offer creative software solutions with the help of AI and Data Science Technologies.
CO1: Analyze the working information/practical performance on Operating System, Accessories & Internet.	1	3	2	2	2	2	3	1	2	1	3	2	2	3	1	2	2
CO2: Analyze different working paradigms to word processors (MS-Word).	2	3	2	2	1	2	3	1	1	1	2	2	2	2	2	2	2
CO3: Determine the appropriate advance working paradigms & graphics to word processors (MS-Word).	2	3	3	2	1	3	3	1	1	2	3	3	1	1	2	2	2
CO4: Analyze different working paradigms (formatting, charts, and datasets) to spreadsheet (MS-Excel).	3	2	3	2	1	3	3	1	2	1	3	3	2	3	1	2	2
CO5: Analyze different working paradigms (transition, customization, and slide) to presentation software (MS-PowerPoint) and Outlook Express.	2	2	3	2	1	3	3	1	1	1	2	2	2	3	1	1	2

Legend: 1 – Low, 2 – Medium, 3 – High

Course Curriculum Map

POs & PSOs No.	COs No.& Titles	SOs No.	Classroom Instruction(CI)	Self-Learning(SL)
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO1: Analyze the working information/practical performance on Operating System, Accessories & Internet.	SO1.1 SO1.2 SO1.3 SO1.4 SO1.5	Unit-1 : OS, Accessories & Internet 1.1,1.2,1.3,1.4,1.5,1.6,1.7,1.8,	As mentioned in page number _ to _
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO2: Analyze different working paradigms to word processors (MS-Word).	SO2.1 SO2.2 SO2.3 SO2.4 SO2.5	Unit-2 : MS Word & Tables 2.1, 2.2, 2.3, 2.4, 2.5, 2.6,2.7,2.8	
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO3: Determine the appropriate advance working paradigms & graphics to word processors (MS-Word).	SO3.1 SO3.2 SO3.3 SO3.4 SO3.5	Unit-3 **:** Advance features of Word & Graphics 3.1,3.2,3.3,3.4,3.5,3.6,3.7	
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO4: Analyze different working paradigms (formatting, charts, and datasets) to spreadsheet (MS-Excel).	SO4.1 SO4.2 SO4.3 SO4.4 SO4.5	Unit-4: MS-Excel 4.1,4.2,4.3,4.4,4.5,4.6,4.7,4.8	
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO5: Analyze different working paradigms (transition, customization, and slide) to presentation software (MS-PowerPoint) and Outlook Express.	SO5.1 SO5.2 SO5.3 SO5.4 SO5.5	Unit-5 : MS-PowerPoint & Outlook Express 5.1,5.2,5.3,5.4,5.5,5.6,5.7,5.8,5.9,5.10,5. 11,5.12,5.13,5.14	

A K S University

Faculty of Computer Application & Information Technology and Science

Department of Computer Application & Information Technology

Curriculum of PGDCA (Post Graduate Diploma in Computer Application)

(Revised as on 01 August 2023)

Semester-I

Course Code: **91CA107-A**

Course Title : Database Using MySQL

Pre-requisite: About DBMS

Rationale: Establish a basic understanding of the analysis and design of a database. Establish a basic understanding of the process of database development and administration using SQL.Enhance Programming and Software Engineering skills and techniques using SQL. Establish a basic understanding of background materials needed for technical support using SQL.

Course Outcomes:

91CA107-A .1: Understand and describe the basic concepts and terminology of Database Management System
91CA107-A .2: Understand and design database and tables.
91CA107-A .3: Write query for simple problem
91CA107-A .4: Learn to customize table.
91CA107-A .5: Understand and Describe the Basic Concepts MySQL.

Scheme of Studies:

Board of Study	Course Code	Course Title	Scheme of studies(Hours/Week)					Total Credits (C)
			Cl	LI	SW	SL	Total Study Hours (CI+LI+SW+SL+T)	
Elecive-1	**91CA107-A**	Database Using MySQL	4	4	1	1	10	6

Legend: **CI:** Classroom Instruction (Includes different instructional strategies i.e. Lecture (L) and Tutorial (T) and others),
LI: Laboratory Instruction (Includes Practical performances in laboratory workshop,field or other locations using different instructional strategies)
SW: Sessional Work (includes assignment, seminar, mini project etc.),
SL: Self Learning,
C: Credits.

Note: SW & SL has to be planned and performed under the continuous guidance and feedback teachers ensure outcome of Learning.

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Scheme of Assessment:

Theory

Board of Study	Couse Code	Course Title	Scheme of Assessment (Marks)							
			Progressive Assessment (PRA)						End Semester Assessment (ESA)	Total Marks (PRA+ ESA)
			Class/Home Assignment 5 number 3 marks each (CA)	Class Test 2 (2 best out of 3) 10 marks each (CT)	Seminar one (SA)	Class Activity any one (CAT)	Class Attendance (AT)	Total Marks (CA+CT+SA+ CAT+AT)		
Elecive-1	91CA107-A	Database Using MySQL	15	20	5	5	5	50	50	100

Practical

Board of Study	Couse Code	Course Title	Scheme of Assessment (Marks)						
			Progressive Assessment (PRA)					End Semester Assessment (ESA)	Total Marks (PRA+ ESA)
			Class/Home Assignment 5 number 3 marks each (CA)	Viva1 (5)	Viva2 (5) (SA)	Class Attendance (AT)	Total Marks (CA+CT+SA+ CAT+AT)		
Elecive-1	91CA107-A	Database Using MySQL	35	5	5	5	50	50	100

Course-Curriculum Detailing:

This course syllabus illustrates the expected learning achievements, both at the course and session levels, which students are anticipated to accomplish through various modes of instruction including Classroom Instruction (CI), Laboratory Instruction (LI), Sessional Work (SW), and Self-Learning (SL). As the course progresses, students should showcase their mastery of Session Outcomes (SOs), culminating in the overall achievement of Course Outcomes (COs) upon the course's conclusion.

91CA107-A.1: Understand and describe the basic concepts and terminology of Database Management System

Approximate Hours

Item	Appx. Hrs.
Cl	12
LI	12
SW	1
SL	1

Total	26

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)
SO1.1 Understand DBMS and RDBMS. **SO1.2** Understand different types of key. **SO1.3** Discuss Database element. **SO1.4** Identify various types of ISP and its function. **SO1.5** Discuss various Database application.	**LI1.1.** Write a Characteristics of DBMS **LI1.2.** Explain the concept of Primary Key **LI03:** Describe various database application. **LI1.3.** Give an example of banking database **LI1.4.** Give an example of railway database **LI1.5.** Give an example of school database **LI1.6.** Give an example of retail store database.	**Unit-1. Database Concept** 1.1 Introduction, Need of database 1.2 Flat Database 1.3 Database Management System 1.4 Characteristics of DBMS 1.5 Relational Database 1.6 Entity and Referential Integrity 1.7 Database Concept of primary key 1.8 Database Application Example:- Banking, 1.9 Railways, 1.10 School, Retail Store 1.11 Database Elements - Tables, Query, Form, Report 1.12 Introduction to Client Server paradigm	1. Analysis of RDBMS 2. Study of different types of keys.

SW-1 Suggested Sessional Work (SW):
Assignments:

1. Explain different types of keys.
2. Discuss E-R model.
3. Explain characteristics of DBMS.

91CA107-A .2: Understand and design database and tables.

Approximate Hours

Item	Appx. Hrs.
Cl	12
LI	12
SW	1

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SL	1
Total	26

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)
SO2.1 Installation of MySQL **SO2.2** Running and Shutting down MySQL Server **SO2.3** Analysis of different MySQL database Command	LI2.1. How to install mysql in windows LI2.2. How to setup mysql account. LI2.3. Write a command to create a database. LI2.4. Write a Command to delete a database. LI2.5. Use command for Administrative MySQL database like SHOW DATABASE, USE DATABASE LI2.6. . Use command for Administrative MySQL database like SHOW TABLES, SHOW COLUMN, and SHOW INDEX	**Unit-2 MySQL Database** 2.1 MySQL and Its Features 2.2 Installation on Windows 2.3 Making it works on Command Line, 2.4 Using the Built in Database 2.5 Running and Shutting down MySQL Server. 2.6 Setting up MySQL user account. 2.7 CREATE and DROP database 2.8 Important Administrative Mysql database commands- SHOW DATABASE, 2.9 USE DATABASE, 2.10 SHOW TABLES, 2.11 SHOW COLUMN, and 2.12 SHOW INDEX	1. Study of Administrative MySQL database commands

SW-2 Suggested Sessional Work (SW):

Assignments:

1. Create New database name "**student**" (with relevant data type) and add following records:

ROLL_NO	FNAME	SNAME	CITY	COURSE	FEE_DEPOSITED
100	ANIL	SHARMA	SATNA	DCA	1000.00
101	SUNIL	SONI	REWA	PGDCA	1200.00
102	MOHIT	RAY	PANNA	PGDCA	500.00
103	MADHURI	SINGH	BHOPAL	DCA	1000.00

2. Write a command to display all database.
3. Write a command to display all tables in a database.

91CA107-A.3: Write query for simple problem

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Approximate Hours

Item	Appx. Hrs.
Cl	13
LI	12
SW	1
SL	1
Total	27

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)
SO3.1. Discuss DDL,DML.DCL **SO3.2.** Describe various data types **SO3.3.** Discuss inserting, updating ,deleting and retrieving data from a MySQL database **SO3.5.** Describe string and numerical function.	**LI3.1.** Write the MySQL statement to delete column in table. **LI3.2.** Write the MySQL statement to insert a new column. **LI3.3.** Write command to add and delete data in a table. **LI3.4.** Write command to select data from a table using where clause. **LI3.5.** Write an example of SQL functions. **LI3.6.** Write an example of use of operator in SQL commands.	**Unit-3 : Database Query Commands** 3.1 DDL, DML, DCL 3.2 Creating Tables Using SQL Commands 3.3 Using various Data Types 3.4 Applying constraints on Tables 3.5 Updating, Deleting MySQL Tables 3.6 Inserting Data 3.7 Updating and Deleting Data 3.8 Retrieving Data From a MySQL Database 3.9 Sorting Data Retrieved from a MySQL Database 3.10 Using WHERE to filter data. 3.11 SQL Functions and Operators 3.12 Control flow function, 3.13 String Function, Numerical Function	1. Study of DDL, DCL,DM 2. Study of string and numerical function

SW-3 Suggested Sessional Work (SW):

Assignments:

1. Create a table EMP in MYSQL

EmpName	Salary	Age	Country	Email
Anil	5000	45	India	xyz@yahoo.com
Raj kamal	6000	34	USA	dinesh_hyt@hotmail.com
Deepak	2000	33	Nepal	Sunil_ftrxyz@gamil.com
Anuj kumar	18000	56	Bhutan	Rajxyz@gmail.com

2. Write a MySQL statement to insert your record into the above table against each columns.
3. Write a MySQL statement to change the email and country name for Deepak.

91CA107-A.4: Learn to customize table.

Approximate Hours

Item	Appx. Hrs.
Cl	11
LI	12
SW	1
SL	1
Total	25

Session Outcomes (SOs)	**Laboratory Instruction (LI)**	**Classroom Instruction (CI)**	**Self-Learning (SL)**
SO4.1. Explain Data Filtering **SO4.2.** Explain MySQL Regular Expression Searches **SO4.3.** Describe to Joining Tables in MySQL	LI4.1. **LI01**. Write a MySQL statement to join two tables. LI4.2. **LI02**. Write a MySQL statement to display the information of student which name start with 'a'. LI4.3. Write SQL command To calculate the total fees deposited. LI4.4. Write SQL command using AND,OR. LI4.5. Write SQL command using NOT,IN. LI4.6. Write commands to use user and security commands.	**Unit-4 : MySQL** 4.1 Data Filtering- AND, 4.2 Data Filtering OR, 4.3 Data Filtering NOT and 4.4 Data Filtering IN-MySQL 4.5 Wildcard Filtering using LIKE 4.6 MySQL Regular Expression Searches 4.7 Joining Tables in MySQL 4.8 Applying Grouping of data by Group By 4.9 MySQL Data Aggregation Functions 4.10 MySQL Users and Security 4.11 Administering and Monitoring MySQL using the MySQL Commands.	1. Study of Data filtering 2. Study of Joining tables in MySQL

SW-4 Suggested Sessional Work (SW):

Assignments:

1. Write a MySQL statement to count the number of records in database.
2. Create two tables with attribute of your choice and perform join operation.
3. To display the sum of fees deposited in each course.

91CA107-A.5: Understand and Describe the Basic Concepts MySQL.

Approximate Hours

Item	Appx. Hrs.
Cl	12

LI	12
SW	1
SL	1
Total	26

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)
SO5.1. Describe PhpMyAdmin **SO5.2.** Managing database with PhpMyAdmin **SO5.3.** Execute MySQL query with sql tab.	LI5.1. Write a query to create new database in PhpMyAdmin LI5.2. Write a Query to add data in database in PhpMyAdmin. LI5.3. How to create table and add data into it. LI5.4. How to manage database using PhP MyAdmin Browse ,structure. LI5.5. How to manage database using PhP MyAdmin Search,insert. LI5.6. How to execute mySQL query from SQL tab.	**Unit 5: PhpMyAdmin** 5.1. Applications for MySQL database 5.2. Workbench and PhpMyAdmin 5.3. Graphical user Interface of PhP MyAdmin, 5.4. PhP MyAdmin Features, 5.5. Use of different section of PhpMyAdmin 5.6. Managing database with PhP MyAdmin, 5.7. Browse, 5.8. Structure, 5.9. Search, 5.10. Insert, Empty, 5.11. Drop, Create new tables and add data 5.12. Execute MySQL query with sql tab.	1.Study of PhpMyAdmin

SW-5 Suggested Sessional Work (SW):

Assignments:

1. Write a query to create new database in Workbench.
2. Write a query to drop database in Workbench.
3. Write a query to add data in Workbench.

A K S University

Faculty of Computer Application & Information Technology and Science

Department of Computer Application & Information Technology

Curriculum of PGDCA (Post Graduate Diploma in Computer Application)

(Revised as on 01 August 2023)

Brief of Hours suggested for the Course Outcome

Course Outcomes	Class Lecture (Cl)	Laboratory Instruction (LI)	Sessional Work (SW)	Self-Learning (Sl)	Total hour (Cl+SW+Sl)
91CA107-A.1: Understand and describe the basic concepts and terminology of Database Management System	12	12	1	1	26
91CA107-A.2: Understand and design database and tables.	12	12	1	1	26
91CA107-A.3: Write query for simple problem	13	12	1	1	27
91CA107-A.4: Learn to customize table.	11	12	1	1	25
91CA107-A.5: Understand and Describe the Basic Concepts MySQL.	12	12	1	1	26
Total Hours	60	60	5	5	130

Suggestion for End Semester Assessment

Suggested Specification Table(ForESA)

CO	Unit Titles	Marks Distribution			Total Marks
		R	U	A	
91CA107-A.1	Understand and describe the basic concepts and terminology of Database Management System	02	03	03	08
91CA107-A.2	Understand and design database and tables.	02	03	05	10
91CA107-A 3	Write query for simple problem	02	03	07	12
91CA107-A.4	Learn to customize table.	-	3	7	10
91CA107-A.5	Understand and Describe the Basic Concepts MySQL.	-	05	05	10
Total		06	17	27	50

Legend: R: Remember, U: Understand, A: Apply

The end of semester assessment for Problem Solving and Programming will be held with written examination of 50 marks.

Suggested Learning Resources:

Books:

S. No.	Title	Author	Publisher	Edition &Year

1	" A Guide to SQL"	Philip J. Pratt	Thomson/Course Technology	2005
2	" Learning MySQL"	Seyed Tahaghoghi, Hugh E. Williams	O'Reilly Media, Incorporated	28 November 2007

Curriculum Development Team

1. Mr. Roopesh Jaiswal, Principal, Department of Computer Science.
2. Mrs. Aarti Singh Parihar, Teaching Associate, Department of Computer Science.
3. Mrs. Anamika Mishra, Teaching Associate, Department of Computer Science.
4. Mrs. Rashmi Gautam, Teaching Associate, Department of Computer Science.
5. Mrs. Arjita Singh, Teaching Associate, Department of Computer Science.
6. Mr. Imran Ahmad Ansari, Teaching Associate, Department of Computer Science.

COs, POs and PSOs Mapping

Program: PGDCA
Course Code: 91CA206
Course Title: Internet and Web Designing

Course Outcomes	Program Outcomes												Program Specific Outcome				
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
	Domain Knowledge	Problem Analysis	Design/Development of Solutions	Conduct Investigations of Problems	Modern Tool Usage	Professionals and Society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-longlearning	Use fundamental knowledge of math, science, and engineering to comprehend, evaluate, and create computer Programmes in the fields of algorithms, multimedia, big data analytics, machine learning, artificial intelligence, and networking for the effective design of computer-based systems of various complexity	Utilize relevant methods and cutting-edge hardware and software engineering tools to develop and integrate computer systems and related technologies. This PSO2 also encourages lifelong learning for the advancement of technology and its use in multidisciplinary settings	Applying professional engineering solutions for societal improvement while taking into account the environmental context, being conscious of professional ethics, and being able to effectively communicate.	Learn and use the most recent Artificial Intelligence and Data Science technologies in the fields of engineering and computer science	Recognize and examine issues in real life, then offer creative software solutions with the help of AI and Data Science Technologies.
CO1: Understand and describe the basic concepts and terminology of Database Management System.	1	3	2	2	2	2	3	1	2	1	3	2	2	3	1	2	2
CO2: Understand and design database and tables.	2	3	2	2	1	2	3	1	1	1	2	2	2	2	2	2	2
CO3: Write query for simple problem.	2	3	3	2	1	3	3	1	1	2	3	3	1	1	2	2	2
CO4: Learn to customize table.	3	2	3	2	1	3	3	1	2	1	3	3	2	3	1	2	2
CO5: Understand and Describe the Basic Concepts MySQL.	2	2	3	2	1	3	3	1	1	1	2	2	2	3	1	1	2

Legend: 1 – Low, 2 – Medium, 3 – High

Course Curriculum Map

POs & PSOs No.	COs No.& Titles	SOs No.	Classroom Instruction(CI)	Self-Learning(SL)
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO1: Understand and describe the basic concepts and terminology of Database Management System.	SO1.1 SO1.2 SO1.3 SO1.4 SO1.5	Unit-1.Database Concept 1.1,1.2,1.3,1.4,1.5,1.6,1.7,1.8,1.9,1.10,1.11,1.12	As mentioned in page number _ to _
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO2: Understand and design database and tables.	SO2.1 SO2.2 SO2.3	Unit-2 MySQL Database 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8,2.9,2.10,2.11,2.12	
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO3: Write query for simple problem.	SO3.1 SO3.2 SO3.3 SO3.4 SO3.5	Unit-3 : Database Query Commands 3.1,3.2,3.3,3.4,3.5,3.6,3.7,3.8,3.9,3.10,3.11, 3.12,3.13	
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO4: Learn to customize table.	SO4.1 SO4.2 SO4.3	Unit-4 : MySQL 4.1,4.2,4.3,4.4,4.5,4.6,4.7,4.8,4.9,4.10,4.11	
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO5: Understand and Describe the Basic Concepts MySQL.	SO5.1 SO5.2 SO5.3	Unit 5: PhpMyAdmin 5.1,5.2,5.3,5.4,5.5,5.6,5.7,5.8,5.9,5.10,5.11,5.12	

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Curriculum of PGDCA (Post Graduate Diploma in Computer Application)

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Semester-I

Course Code: 91CA107-B

Course Title: Database Using MS-Access

Pre-requisite: Database management system

Rationale: Knowledge of data management system that helps in storing information for reference, reporting, and analysis. Database Management System helps to student in analyzing large amounts of information, and manage related data more efficiently. Students should be able to understand different classes of problems concerning their computation difficulties. Overall, the rationale for using MS-Access as a database solution stems from its ease of use, scalability, integration with Microsoft Office, cost-effectiveness, customizability, and offline access capabilities. For students and professionals seeking to learn database fundamentals or develop small to medium-sized database applications, MS-Access provides a practical and versatile platform.

Course Outcomes:

91CA107-B.1.: Examine database concepts and explore the Microsoft Office Access environment.
91CA107-B.2: Designing and building database with related tables in datasheet view or by using the table Wizard.
91CA107-B.3: Understand what queries are and their importance in MS-Access
91CA107-B.4: Designing Forms Build complex forms in design view using different form elements. Build forms of the type: Main/Sub form and query-based.
91CA107-B.5: Generating Reports and creating report-based application

Scheme of Studies:

Board of Study	Course Code	Course Title	Scheme of studies (Hours/Week)					Total Credits (C)
			Cl	LI	SW	SL	Total Study Hours (CI+LI+SW+SL+T)	
Elective-1	91CA107-B	Database Using MS-Access	4	4	2	1	11	6

Legend: **CI:** Classroom Instruction (Includes different instructional strategies i.e. Lecture (L) and Tutorial (T) and others),
LI: Laboratory Instruction (Includes Practical performances in laboratory workshop, field or other locations using different instructional strategies)

SW: Sessional Work (includes assignment, seminar, mini project etc.),

SL: Self Learning,

C: Credits.

Note: SW & SL has to be planned and performed under the continuous guidance and feedback teachers ensure outcome of Learning.

Scheme of Assessment:

Theory

Board of Study	Couse Code	Course Title	Scheme of Assessment (Marks)							
			Progressive Assessment (PRA)						End Semester Assessment (ESA)	Total Marks (PRA+ ESA)
			Class/Home Assignment 5 number 3 marks each (CA)	Class Test 2 (2 best out of 3) 10 marks each (CT)	Seminar one (SA)	Class Activity any one (CAT)	Class Attendance (AT)	Total Marks (CA+CT+SA+ CAT+AT)		
Elecive-1	91CA107-B	Database Using MS-Access	15	20	5	5	5	50	50	100

Practical

Board of Study	Couse Code	Course Title	Scheme of Assessment (Marks)						
			Progressive Assessment (PRA)					End Semester Assessment (ESA)	Total Marks (PRA+ ESA)
			Class/Home Assignment 5 number 3 marks each (CA)	Viva1 (5)	Viva2 (5) (SA)	Class Attendance (AT)	Total Marks (CA+CT+SA+ CAT+AT)		
Elecive-1	91CA107-B	Database Using MS-Access	35	5	5	5	50	50	100

Course-Curriculum Detailing:

This course syllabus illustrates the expected learning achievements, both at the course and session levels, which students are anticipated to accomplish through various modes of instruction including Classroom

Instruction (CI), Laboratory Instruction (LI), Sessional Work (SW), and Self-Learning (SL). As the course progresses, students should showcase their mastery of Session Outcomes (SOs), culminating in the overall achievement of Course Outcomes (COs) upon the course's conclusion.

2CS05.1: Analyze the complexity/performance of different algorithms.

Approximate Hours

Item	Appx. Hrs.
Cl	12
LI	12
SW	2
SL	1
Total	27

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)
SO1.1 Understand and describe the basic concepts and terminology of Database Management System **SO1.2** Differentiate file system and Database system **SO1.3** Discuss about Primary key and foreign key in relational ship. **SO1.4** Analyze and Design the database of applications using ER modeling and Normalization **SO1.5** Explore the Microsoft Office Access environment **SO1.6** Describe Client	**LI1.1.** Write steps to open MS-Access application. **LI1.2.** Write steps to create database file in MS-Access. **LI1.3.** Draw E-R diagram for employee and department, **LI1.4.** Draw E-R diagram for teacher and student **LI1.5.** Draw example of One-to-one mapping. **LI1.6.** Draw example of One-to-many	**Unit-1. Introduction to Database** 1.1 What is a Database. 1.2 Relational Database. 1.3 Overview of Database Design- 1.4 1.3.Data Normalization , 1.5 1.4 Integrity Rules 1.6 Primary/Foreign Key, 1.7 One-to-Many, 1.8 Many-to-Many, 1.9 One-to-One. 1.10 Introduction to MS Access 1.11 (Objects, 1.12 Navigation)	1. Application of Database 2. Concept of primary key and foreign key in relational model

Server paradigm	mapping		

SW-1 Suggested Sessional Work (SW):

a. Assignments:

1. Draw E-R diagram for all type relationship (one to one, one to many, many to many)
2. Differentiate between primary key and foreign key with example.
3. Explain MS-Access with their object

b. Other Activities (Specify):

Seminar

2CS05.2: Analyze different paradigms to solve graph problems.

Approximate Hours

Item	Appx. Hrs.
Cl	12
LI	12
SW	2
SL	1
Total	27

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)
SO2.1 Recall Designing and building database with related tables in datasheet view or by using the table wizard **SO2.2** Explain managing data in tables **SO2.3** Extend modify tables. **SO2.4** Construct lookup fields and modify field	LI2.1. Write steps to create table by design view, by wizard and entering data LI2.2. Write steps to filter & sort LI2.3. Write steps to modify structure of table. LI2.4. Demonstrate example of Find and Replace. LI2.5. Give example of	**Unit-2 MS Access** 2.1 Tables in Database 2.2 Create a Table in MS Access- 2.3 Data Types, 2.4 Field Properties 2.5 Fields: names, types, properties default values, 2.6 format, caption, validation rules 2.7 Data Entry, add record delete record and	1. Study of different table creation in MS-Access. 2. Study of different text formatting in table.

properties. **SO2.5** Make a use of enter, edit, sort, filter, and delete records, freeze/unfreeze, Import and export object	various types of datatypes. LI2.6. Working with columns in table	2.8 edit text, Sort, find/replace, 2.9 filter/ select, rearrange columns, freeze columns. 2.10 Edit a Tables- copy, delete, 2.11 import, modify table structure, 2.12 find, replace.	

SW-2 Suggested Sessional Work (SW):

a. Assignments:

1. Explain Different ways of filter in MS-Access.
2. Discuss find and replace.
3. Explain copy, paste and delete table in MS-Access.

a. Other Activities(Specify):

Seminar

2CS05.3: Determine the appropriate data structure for solving a particular set of Problems.

Approximate Hours

Item	Appx. Hrs.
Cl	12
LI	12
SW	2
SL	1
Total	27

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)

SO3.1. Recall relationship And their type in MS-Access **SO3.2.** Describe primary key and foreign key in edit relationship . **SO3.3.** Explain link between two table and change their join type. **SO3.4.** Discuss different Query type with example. **SO3.5.** Describe query with single table and multiple table	**LI3.1.** Write steps different ways of creating query. **LI3.2.** Write steps for to link two tables and change their join type. **LI3.3.** How to implement filter on data. **LI3.4.** Working with Query wizard **LI3.5.** Working with and/or options in filter **LI3.6.** Give example of joins.	**Unit-3 : Query and Relationships** 3.1 Define relationships, add a relationship, 3.2 set a rule for Referential Integrity, 3.3 change the join type, delete a relationship, 3.4 save relationship 3.5 Queries & Filter – 3.6 difference between queries and filter, 3.7 filter using multiple fields AND, OR, 3.8 advance filter Queries 3.9 Create Query with one table 3.10 find record with select query, find duplicate record with query, 3.11 find unmatched record with query 3.12 run query, save and change query	1. Study of set theory in relationship 2. Study of deference between query and filter.

SW-3 Suggested Sessional Work (SW):

a. Assignments:

1. Explain Query and its type.
2. Discuss the relationship between two tables.
3. Explain difference between query and filter.

b. Other Activities(Specify):

Seminar

2CS05.4: Categorize the different problems in various classes according to their complexity.

Approximate Hours

Item	Appx. Hrs.
Cl	12
LI	12
SW	2
SL	1
Total	27

Session Outcomes (SOs)	Laboratory Instruction	Classroom Instruction (CI)	Self-Learning

	(LI)		(SL)
SO4.1. Explain form and their type. **SO4.2.** Explore different Ways of add database records with controls in form **SO4.3.** Describe how to change properties of controls in form with Example. **SO4.4.** Identify Difference between form type. **SO4.5.** Explore concepts	**LI4.1.** Write steps for create deferent ways of create form. **LI4.2.** Write step to add records with controls in form. **LI4.3.** Write steps to change different properties of form. **LI4.4.** Working with form wizard. **LI4.5.** Design a form with list box and combo box. **LI4.6.** Design a form with option button and check box.	**Unit-4 : Working with Forms** 4.1 Introduction to Forms 4.2 Types of Basic Forms: 4.3 Columnar, 4.4 Tabular, Datasheet 4.5 Add headers and footers 4.6 Add fields to form, add 4.7 text to form use label option button, 4.8 check box, 4.9 combo box, list box 4.10 Forms 4.11 Wizard, 4.12 Create Template	1. Study different form type 2. Study of control and their property sheet

SW-4 Suggested Sessional Work (SW):

a. Assignments:

1. Discuss form and their type.
2. Explain how to design Form.
3. Explain how to add record with form by query.

b. Other Activities(Specify):

Seminar

2CS05.5: **Students will have an insight of recent activities in the field of the advanced data structure.**

Approximate Hours

Item	Appx. Hrs.
Cl	12
LI	12
SW	2

SL	1
Total	27

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)
SO5.1. Describe Generating Reports and creating report-based application. **SO5.2.** Explain type of report **SO5.3.** Identify Query based report **SO4.4.** Explain use of sort, group and total in Report **SO5.5.** Discuss single table and multiple table report **SO5.6.** Explore different ways to add record with control in report. **SO5.7.** Describe how to print report	LI5.1. Write steps to create report by different ways. LI5.2. Write steps to add record with control in report. LI5.3. Write steps to print report in MS-Access. LI5.4. Working with report wizard. LI5.5. How will you print report. LI5.6. Design a tabular report.	**Unit 5: Working with Reports** 5.1. Introduction to Reports 5.2. Types of Basic Reports 5.3. Single Column Report 5.4. Tabular Report 5.5. Groups/Total 5.6. single table report 5.7. multi table report 5.8. preview reports 5.9. Print report 5.10. Creating Reports and 5.11. Creating Labels 5.12. Wizard.	1.Study of Report in DBMS. 2. Study of hard copy report and soft copy report in MS-Access.

SW-5 Suggested Sessional Work (SW):

a. Assignments:

1. Explain Report.
2. Differentiate single and multiple table report.
3. Take suitable example and explain how to print report.

b. **Other Activities (Specify):**

Seminar

Brief of Hours suggested for the Course Outcome

Course Outcomes	Class Lecture	Laboratory Instruction	Sessional Work	Self-Learning	Total hour (Cl+SW+Sl)

	(Cl)	(LI)	(SW)	(Sl)	
91CA107-B.1: Examine database concepts and explore the Microsoft Office Access environment.	12	12	2	1	27
91CA107-B.2: Designing and building database with related tables in datasheet view or by using the table Wizard.	12	12	2	1	27
91CA107-B.3: Understand what queries are and their importance in MS-Access	12	12	2	1	27
91CA107B.4: Designing Forms Build complex forms in design view using different form elements. Build forms of the type: Main/Sub form and query-based.	12	12	2	1	27
91CA107-B.5: Generating Reports and creating report-based application	12	12	2	1	27
Total Hours	60	60	10	5	135

Suggestion for End Semester Assessment

Suggested Specification Table(ForESA)

CO	Unit Titles	Marks Distribution			Total Marks
		R	U	A	
91CA107-B.1	Examine database concepts and explore the Microsoft Office Access environment.	02	03	03	08
91CA107-B.2	Designing and building database with related tables in datasheet view or by using the table Wizard. .	02	03	05	10
91CA107-B.3	Understand what queries are and their importance in MS-Access	02	03	07	12
91CA107-B.4	Designing Forms Build complex forms in design view using different form elements. Build forms of the type: Main/Sub form and query-based.	-	3	7	10
91CA107-B.5	Generating Reports and creating report-based application	-	05	05	10
Total		06	17	27	50

Legend: R: Remember, U: Understand, A: Apply

The end of semester assessment for Problem Solving and Programming will be held with written examination of 50 marks.

Suggested Learning Resources:

a. Books:

S. No.	Title	Author	Publisher	Edition &Year
1	"MS Office XP complete"	By BPB publication	BPB ISBN 8 1-7656-564-4.	
2	" MS Access fast & easy"	By Faithe Wempen	PHI	

3	"Concepts of Database Management System"	by Shefali Naik	Pearson New International	

Curriculum Development Team

1. Mr. Roopesh Jaishwal , HOD, Department of Computer Science .
2. Ms. Anamika Mishra, Department of Computer Science.
3. Ms. Rashmi Rani Gautam, Department of Computer Science.
4. Ms. Aarti Singh Parihar, Department of Computer Science.
5. Miss. Arjita Singh Rajawat,Department of Computer Science.
6. Mr. Imran Ahmad Ansari, Department of Computer Science.

COs, POs and PSOs Mapping

Program: PGDCA. Computer Science
Course Code: 91CA107-B
Course Title: Database Using MS-Access

Course Outcomes	Program Outcomes												Program Specific Outcome				
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct studies of difficult problems	Utilization of modern tools	Engineers and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-longlearning	Use fundamental knowledge of math, science, and engineering to comprehend, evaluate, and create computer Programmes in the fields of algorithms, multimedia, big data analytics, machine learning, artificial intelligence, and networking for the effective design of computer-based systems of various complexity	Utilize relevant methods and cutting-edge hardware and software engineering tools to develop and integrate computer systems and related technologies. This PSO2 also encourages lifelong learning for the advancement of technology and its use in multidisciplinary settings	Applying professional engineering solutions for societal improvement while taking into account the environmental context, being conscious of professional ethics, and being able to effectively communicate.	Learn and use the most recent Artificial Intelligence and Data Science technologies in the fields of engineering and computer science	Recognize and examine issues in real life, then offer creative software solutions with the help of AI and Data Science Technologies.
CO1: Examine database concepts and explore the Microsoft Office Access environment.	1	3	2	2	2	2	3	1	2	1	3	2	2	3	1	2	2
CO2: Designing and building database with related tables in datasheet view or by using the table Wizard.	2	3	2	2	1	2	3	1	1	1	2	2	2	2	2	2	2
CO3: Understand what queries are and their importance in MS-Access	2	3	3	2	1	3	3	1	1	2	3	3	1	1	2	2	2
CO4: Designing Forms Build complex forms in design view using different form elements. Build forms of the type: Main/Sub form and query-based.	3	2	3	2	1	3	3	1	2	1	3	3	2	3	1	2	2
CO5: Generating Reports and creating report-based application	2	2	3	2	1	3	3	1	1	1	2	2	2	3	1	1	2

Legend: 1 – Low, 2 – Medium, 3 – High

Course Curriculum Map

POs & PSOs No.	COs No.& Titles	SOs No.	Classroom Instruction(CI)	Self-Learning(SL)
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO1: Examine database concepts and explore the Microsoft Office Access environment.	SO1.1 SO1.2 SO1.3 SO1.4 SO1.5 SO1.6	Unit-1 : Introduction to Database 1.1,1.2,1.3,1.4,1.5	As mentioned in page number _ to _
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO2: Designing and building database with related tables in datasheet view or by using the table Wizard.	SO2.1 SO2.2 SO2.3 SO2.4 SO2.5	Unit-2: MS Access 2.1, 2.2, 2.3, 2.4, 2.5	
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO3: Understand what queries are and their importance in MS-Access	SO3.1 SO3.2 SO3.3 SO3.4 SO3.5	Unit-3: Query and Relationships 3.1,3.2,3.3,3.4,3.5	
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO4: Designing Forms Build complex forms in design view using different form elements. Build forms of the type: Main/Sub form and query-based..	SO4.1 SO4.2 SO4.3 SO4.4 SO4.5	Unit-4: Working with Form 4.1,4.2,4.3,4.4	
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO5: Generating Reports and creating report-based application	SO5.1 SO5.2 SO5.3 SO5.4 SO5.5 SO5.6 SO5.7	Unit-5: Working with Report 5.1,5.2,5.3,5.4,5.5,5.6,5.7,5.8	

A K S University

Faculty of Computer Application & Information Technology and Science

Department of Computer Application & Information Technology

Curriculum of PGDCA (Post Graduate Diploma in Computer Application)

(Revised as on 01 August 2023)

Semester-I

Course Code: 91CA108-A

Course Title : FUNDAMENTALS OF MULTIMEDIA

Pre-requisite: Multimedia Fundamentals

Rationale: Introduce students to the concept and some advanced methods of analyzing Multimedia. The student should be known about Multimedia and its Element. To familiarize students with basic paradigms and Multimedia elements used in Various Day to day life and Business Market. Students should be able to understand VR and Future of Multimedia in Business Market.

Course Outcomes:

91CA108-A.1: Analyze the information/practical performance on Multimedia Concepts, Application and Text Editing/Formatting.
91CA108-A.2: Analyze the information/ Concepts, Application, features over Sound.
91CA108-A.3: Analyze the information/ Concepts, Application, features, devices for images.
91CA108-A.4: Analyze the information/ Concepts, Application, features, devices for video and different working paradigms (transition, customization) to Animation
91CA108-A.5: Analyze Future of Multimedia different working paradigms of VR

Scheme of Studies:

Board of Study	Course Code	Course Title	Scheme of studies(Hours/Week)					Total Credits (C)
			Cl	LI	SW	SL	Total Study Hours (CI+LI+SW+SL+T)	
Elective-2	91CA108-A	Fundamentals of Multimedia	4	4	2	1	10	6

Legend: **CI:** Classroom Instruction (Includes different instructional strategies i.e. Lecture (L) and Tutorial (T) and others),
LI: Laboratory Instruction (Includes Practical performances in laboratory workshop, field or other locations using different instructional strategies)
SW: Sessional Work (includes assignment, seminar, mini project etc.),
SL: Self Learning,
C: Credits.

Note: SW & SL has to be planned and performed under the continuous guidance and feedback teachers ensure outcome of Learning.

Scheme of Assessment:

Theory

Board of Study	Couse Code	Course Title	Scheme of Assessment (Marks)							
			Progressive Assessment (PRA)						End Semester Assessment (ESA)	Total Marks (PRA+ ESA)
			Class/Home Assignment 5 number 3 marks each (CA)	Class Test 2 (2 best out of 3) 10 marks each (CT)	Seminar one (SA)	Class Activity any one (CAT)	Class Attendance (AT)	Total Marks (CA+CT+SA+ CAT+AT)		
Elective-2	91CA108-A	Fundamentals of Multimedia	15	20	5	5	5	50	50	100

Practical

Board of Study	Couse Code	Course Title	Scheme of Assessment (Marks)						
			Progressive Assessment (PRA)					End Semester Assessment (ESA)	Total Marks (PRA+ ESA)
			Class/Home Assignment 5 number 3 marks each (CA)	Viva1 (5)	Viva2 (5) (SA)	Class Attendance (AT)	Total Marks (CA+CT+SA+ CAT+AT)		
Elective-2	91CA108-A	Fundamentals of Multimedia	35	5	5	5	50	50	100

Course-Curriculum Detailing:

This course syllabus illustrates the expected learning achievements, both at the course and session levels, which students are anticipated to accomplish through various modes of instruction including Classroom Instruction (CI), Laboratory Instruction (LI), Sessional Work (SW), and Self-Learning (SL). As the course progresses, students should showcase their mastery of Session Outcomes (SOs), culminating in the overall

achievement of Course Outcomes (COs) upon the course's conclusion.

91CA108-A.1: Analyze the information/practical performance on Multimedia Concepts, Application and Text Editing/Formatting

Approximate Hours

Item	Appx. Hrs.
Cl	12
LI	12
SW	2
SL	1
Total	27

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)
SO1.1 Discuss Multimedia. **SO1.2** Analyze Multimedia hardware and software **SO1.3** Discuss the Concept of Plain text and Formatted Text, html **SO1.4** Discuss the Concept and Operation on OLE and Font. **SO1.5** Making Simple	**LI1.1.** Prepare a multimedia presentation **LI1.2.** Prepare and edit different types of images. and their conversion into other file formats. **LI1.3.** Learning to do Image, Audio and Video like Compression. **LI1.4.** Create a presentation using PowerPoint. **LI1.5.** Add various media to presentation. **LI1.6.** Add animation to presentation.	**Unit-1. Introduction to Multimedia** 1.1 Multimedia Definition, 1.2 Concept and Area of Use. 1.3 Application and Elements of Multimedia. 1.4 Development platforms for Multimedia. 1.5 Multimedia Hardware and 1.6 Software requirement. 1.7 Making Simple presentation with PowerPoint. 1.8 Concept of Plain Text and 1.9 Formatted text, 1.10 RTF & HTML texts. 1.11 Concept & Basic	**1.** Study Of PowerPoint and Making Simple presentation with PowerPoint 2. Study of OLE and Linking V/S Embedding.

PowerPoint presentation		Operation on OLE 1.12 Font and its Feature.	

SW-1 Suggested Sessional Work (SW):

a. Assignments:

1. Explain Text as a Component of Multimedia
2. Discuss Object Linking and Embedding with Suitable Example.
3. Making Simple PowerPoint Presentation with Suitable Diagrams

b. Other Activities (Specify):

Seminar and Presentation

91CA108-A.2: Analyze the information/ Concepts, Application, features over Sound.

Approximate Hours

Item	Appx. Hrs.
Cl	12
LI	12
SW	2
SL	1
Total	27

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)
SO2.1 Discuss Sound and its Importance in Multimedia. **SO2.2** Explain Sound Channel and Types of sound **SO2.3** Discuss Various Sound File Formats **SO2.4** Explain MIDI **SO2.5** Discuss Software's For Sound Editing and 3D Sound	**LI2.1.** Prepare different types of graphics. **LI2.2.** Design multimedia posters **LI2.3.** Design multimedia banners. **LI2.4.** Morphing of images. **LI2.5.** Tweening of images. **LI2.6.** Compare various sound formats.	**Unit-2 Sound in Multimedia** 2.1 Introduction and importance of sound in Multimedia 2.2 Sound Attributes--tone, 2.3 intensity, frequency, 2.4 wavelength, pitch etc. 2.5 Sound Channel 2.6 Mono V/S Stereo Sound.	1. Study of different Sound File Format 2. Study applications MIDI and Sound Editing Software

		2.7 Types of sound- 2.8 Analog V/S Digital Sound 2.9 Various Sound File Format 2.10 MIDI and Its Application 2.11 3D Sound 2.12 Sound Editing Software's	

SW-2 Suggested Sessional Work (SW):

a. Assignments:

1. Explain Sound and Various File Formats.
2. Explain MIDI and Its Application.

b. Other Activities(Specify):

Seminar and presentation

91CA108-A.3: Analyze the information/ Concepts, Application, features, devices for images.

Approximate Hours

Item	Appx. Hrs.
Cl	12
LI	12
SW	2
SL	1
Total	27

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)
SO3.1. Discuss Graphics and its Importance in Multimedia. **SO3.2.** Describe Types and Attribute of Graphics	LI3.1. Create animation of basic movements like bouncing a ball. LI3.2. Create animation of basic movements	**Unit-3 : Graphics in Multimedia** 3.1 Graphics and its Importance in Multimedia. 3.2 Attributes of Graphics- 3.3 Size, Color, Bit Depth, Resolution etc. 3.4 Types of Graphics	1. Study Scanner And its Type 2. Study of Digital Camera.

SO3.3. Explain Various Image Capturing method. **SO3.4.** Explain Concept and working Of Digital camera **SO3.5.** Describe Features and Limitation Of Images.	like moving a wheel. LI3.3. Create animation of basic movements like dancing doll etc. LI3.4. Apply different operations like rotation. on objects. LI3.5. Apply different operations like. scaling, movement on objects. LI3.6. Recording of video and audio	3.5 Vector And Raster image 3.6 Image Capturing Methods 3.7 Scanner. 3.8 Scanner Types 3.9 Digital Camera and 3.10its Working. 3.11 Description and Limitation of Various Image File Format- 3.12 BMP, DIB, EPS, PlC, and TIF.	

SW-3 Suggested Sessional Work (SW):

a. Assignments:

1. Explain MICR and Its Working with Suitable Diagram
2. Explain OMR and Its Working with Suitable Diagram
3. Explain Digital Camera and Its Working with Suitable Diagram

b. Other Activities(Specify):

Seminar and presentation

91CA108-A.4: Analyze the information/ Concepts, Application, features, devices for video and different working paradigms (transition, customization) to Animation

Approximate Hours

Item	Appx. Hrs.
Cl	12
LI	12
SW	2
SL	1
Total	27

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)
SO4.1. Explain Video and its Type **SO4.2.** Describe Various Video Editing Software **SO4.3.** Discuss Different Video Standard and File format **SO4.4.** Explain Animation and Its Type **SO4.5.** Explain use of Animation and Various Animation Editing Tools	**LI4.1.** Integration of sound files and editing **LI4.2.** Integration of video files. **LI4.3.** Editing of video files **LI4.4.** Prepare jingles by applying multimedia tools. **LI4.5.** prepare advertisements by applying multimedia tools. **LI4.6.** Develop a 2D animation using shape tweening and motion tweening.	**Unit-4 : Video and Animation** 4.1 Video and its impact on Multimedia. 4.2 Basic Of Analog And Digital Video 4.3 How to use video on PC, 4.4 Laptop and Other Gadgets. 4.5 Video Standard – NTSC, PAL, 4.6 SECAM, HDTV. 4.7 Different Video File Format 4.8 Video Editing Software's. 4.9 Basic and Types Of Animation 4.10 Application of Animation 4.11 Animation Process Procedures. 4.12 Various Animation Software	1. Study different Video Standard. 2. Study of Various Video editing Software. 3. Study Of Animation and Various Animation Software.

SW-4 Suggested Sessional Work (SW):

a. Assignments:

1. Discuss Video Editing Tools.
2. Explain Animation Process Procedures/ Steps.
3. Explain Digitization of Analog Video.

b. Other Activities(Specify):

Seminar and Presentation

91CA108-A.5: Analyze Future of Multimedia different working paradigms of VR.

Approximate Hours

Item	Appx. Hrs.
Cl	12
LI	12
SW	2
SL	1
Total	27

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)
SO5.1. Describe - Application of multimedia in different industries **SO5.2.** Explain Future of Multimedia **SO5.3.** Explain Carrier in Multimedia **SO4.4.** Explain Concept-virtual Reality as new technology in multimedia. **SO5.5.** Discuss Various VR Devices **SO5.6.** Discuss Authoring Tools	**LI5.1.** Create a 2D animation using motion guide layer and masking **LI5.2.** Create text animation. **LI5.3.** Design simple 3D animation using basic shapes. **LI5.4.** Develop basic 3D animation of different objects **LI5.5.** Create a small animated story. **LI5.6.** Explore some VR devices	**Unit 5: Applications of Multimedia & Future** 5.1. Explain Application of Multimedia 5.2. Types Of Multimedia 5.3. Multimedia in Industries- Education, Entertainment, Journalism etc. 5.4. Journalism and 5.5. its impact in Multimedia. 5.6. Future Scope and 5.7. Carrier in Multimedia 5.8. VR as a new technology in Multimedia. 5.9. Application of VR 5.10. VR Devices :	1. Differentiate among VR, AR, MR. 2. Use knowledge of Journalism and its application in real world problems.

		BOOM , CAVE, HMD , Data Gloves 5.11. Authoring Tools and 5.12. its type.	

SW-5 Suggested Sessional Work (SW):

a. Assignments:

1. Explain Future Scope of Multimedia.
2. Explain VR and Its related Devices.
3. Describe Authoring Tools and its type

b. **Other Activities (Specify):**

Seminar and presentation

Brief of Hours suggested for the Course Outcome

Course Outcomes	Class Lecture (Cl)	Laboratory Instruction (LI)	Sessional Work (SW)	Self-Learning (Sl)	Total hour (Cl+SW+Sl)
91CA108-A.1: Analyze the information/ practical performance on Multimedia Concepts, Application and Text Editing/ Formatting	12	12	2	1	27
91CA108-A.2: Analyze the information/ Concepts, Application, features over Sound.	12	120	2	1	27
91CA108-A.3: Analyze the information/ Concepts, Application, features, devices for images.	12	12	2	1	27
91CA108-A.4: Analyze the information/ Concepts, Application, features, devices for video and different working paradigms (transition,	12	12	2	1	27

customization) to Animation.					
91CA108-A.5: Analyze Future of Multimedia different working paradigms of VR.	12	12	2	1	27
Total Hours	60	60	10	5	135

Suggestion for End Semester Assessment

Suggested Specification Table(ForESA)

CO	Unit Titles	Marks Distribution			Total Marks
		R	U	A	
91CA108-A.1	Analyze the information/ practical performance on Multimedia Concepts, Application and Text Editing/ Formatting.	02	03	03	08
91CA108-A.2	Analyze the information/ Concepts, Application, features over Sound.	02	03	05	10
91CA108-A.3	Analyze the information/ Concepts, Application, features, devices for images.	02	03	07	12
91CA108-A.4	Analyze the information/ Concepts, Application, features, devices for video and different working paradigms (transition, customization) to Animation.	-	3	7	10
91CA108-A.5	Analyze Future of Multimedia different working paradigms of VR.	-	05	05	10
Total		06	17	27	50

Legend: R: Remember, U: Understand, A: Apply

The end of semester assessment for Problem Solving and Programming will be held with written examination of 50 marks.

Suggested Learning Resources:

a. Books:

S. No.	Title	Author	Publisher	Edition &Year

1	"Introduction to Multimedia"	by Ramesh Bangia	Laxmi Publications.	Paperback – 1 January 2015
2	" Multimedia: Making It Work"	by Tay Vaughan	TataMc-Graw Hill.	Eight Edition.
3	"Multimedia System"	by Ralf Steinmetz	SPRINGER (SIE)l	Paperback – 1 January 2006

Curriculum Development Team

1. Mr. Roopesh Jaiswal, Principal, Department of Computer Science.
2. Mr. Imran Ahmed Ansari, Teaching Associate, Department of Computer Science.
3. Mrs. Anamika Mishra, Teaching Associate, Department of Computer Science.
4. Mrs. Rashmi Gautam, Teaching Associate, Department of Computer Science.
5. Mrs. Aarti Singh Parihar, Teaching Associate, Department of Computer Science.
6. Ms. Arjita Singh,Teaching Associate, Department of Computer Science.

COs, POs and PSOs Mapping

Program: PGDCA Computer Science
Course Code: 91CA108-A
Course Title: Fundamentals of Multimedia

Course Outcomes	Program Outcomes												Program Specific Outcome				
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct studies of difficult problems	Utilization of modern tools	Engineers and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-longlearning	Use fundamental knowledge of math, science, and engineering to comprehend, evaluate, and create computer Programmes in the fields of algorithms, multimedia, big data analytics, machine learning, artificial intelligence, and networking for the effective design of computer-based systems of various complexity	Utilize relevant methods and cutting-edge hardware and software engineering tools to develop and integrate computer systems and related technologies. This PSO2 also encourages lifelong learning for the advancement of technology and its use in multidisciplinary settings	Applying professional engineering solutions for societal improvement while taking into account the environmental context, being conscious of professional ethics, and being able to effectively communicate.	Learn and use the most recent Artificial Intelligence and Data Science technologies in the fields of engineering and computer science	Recognize and examine issues in real life, then offer creative software solutions with the help of AI and Data Science Technologies.
CO1: Analyze the information/ practical performance on Multimedia Concepts, Application and Text Editing/ Formatting.	1	3	2	2	2	2	3	1	2	1	3	2	2	3	1	2	2
CO2: Analyze the information/ Concepts, Application, features over Sound.	2	3	2	2	1	2	3	1	1	1	2	2	2	2	2	2	2
CO3 Analyze the information/ Concepts, Application, features, devices for images.	2	3	3	2	1	3	3	1	1	2	3	3	1	1	2	2	2
CO4: Analyze the information/ Concepts, Application, features, devices for video and different working paradigms (transition, customization) to Animation.	3	2	3	2	1	3	3	1	2	1	3	3	2	3	1	2	2
CO5: Analyze Future of Multimedia different working paradigms of VR.	2	2	3	2	1	3	3	1	1	1	2	2	2	3	1	1	2

Course Curriculum Map

POs & PSOs No.	COs No.& Titles	SOs No.	Classroom Instruction(CI)	Self-Learning(SL)
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO1: Analyze the information/ practical performance on Multimedia Concepts, Application and Text Editing/ Formatting.	SO1.1 SO1.2 SO1.3 SO1.4 SO1.5	Unit-1 : Introduction to Multimedia 1.1,1.2,1.3,1.4,1.5,1.6,1.7,1.8,	As mentioned in page number _ to _
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO2: Analyze the information/ Concepts, Application, features over Sound.	SO2.1 SO2.2 SO2.3 SO2.4 SO2.5	Unit-2 : Sound in Multimedia 2.1, 2.2, 2.3, 2.4, 2.5, 2.6,2.7,2.8,	
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO3: Analyze the information/ Concepts, Application, features, devices for images.	SO3.1 SO3.2 SO3.3 SO3.4 SO3.5	Unit-3 **:** Graphics in Multimedia 3.1,3.2,3.3,3.4,3.5,3.6,3.7	
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO4: Analyze the information/ Concepts, Application, features, devices for video and different working paradigms (transition, customization) to Animation.	SO4.1 SO4.2 SO4.3 SO4.4 SO4.5 SO4.6	Unit-4: Video and Animation 4.1,4.2,4.3,4.4,4.5,4.6,4.7,4.8,4.9,4.10,	
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO5: Analyze Future of Multimedia different working paradigms of VR.	SO5.1 SO5.2 SO5.3 SO5.4 SO5.5 SO5.6	Unit-5 : Applications of Multimedia & Future 5.1,5.2,5.3,5.4,5.5,5.6,5.7,5.8,	

A K S University

Faculty of Computer Application & Information Technology and Science

Department of Computer Application & Information Technology

Curriculum of PGDCA (Post Graduate Diploma in Computer Application)

(Revised as on 01 August 2023)

Semester-I

Course Code: 91CA108-B

Course Title : PROGRAMMING WITH VB .NET

Pre-requisite: Knowledge about BASIC and Visual Basic programming languages

Rationale: To acquaint the students with the basics of OOP Concept and .NET. The student should be able to select the appropriate software and use .net framework and task. To acquaint the students with the basic paradigms and market functions used to design advanced web solutions. The students should be able to understand the various features of .net framework and their computation difficulties. To acquaint the students with the recent developments in the field of IT work.

Course Outcomes:

91CA108-B.1: Analyze working information/practical demonstration on OOP concepts.
91CA108-B.2: Analyze various working patterns for .NET Framework.
91CA108-B.3: Determine appropriate advanced working patterns and graphics for Forms, Loop Statement & Functions.
91CA108-B.4: Analyze various working patterns for More Advanced Tools.
91CA108-B.5: Analyze various working patterns for Database Programming with ADO.NET.

Scheme of Studies:

Board of Study	Course Code	Course Title	Scheme of studies(Hours/Week)					Total Credits (C)
			Cl	LI	SW	SL	Total Study Hours (CI+LI+SW+SL+T)	
Elective-2	91CA108-B	PROGRAMMING WITH VB .NET	4	4	1	1	10	6

Legend: **CI:** Classroom Instruction (Includes different instructional strategies i.e. Lecture (L) and Tutorial (T) and others),
LI: Laboratory Instruction (Includes Practical performances in laboratory workshop, field or other locations using different instructional strategies)
SW: Sessional Work (includes assignment, seminar, mini project etc.),
SL: Self Learning,
C: Credits.

Note: SW & SL has to be planned and performed under the continuous guidance and feedback teachers ensure outcome of Learning.

Scheme of Assessment:

Theory

Board of Study	Couse Code	Course Title	Scheme of Assessment (Marks)							
			Progressive Assessment (PRA)						End Semester Assessment (ESA)	Total Marks (PRA+ ESA)
			Class/Home Assignment 5 number 3 marks each (CA)	Class Test 2 (2 best out of 3) 10 marks each (CT)	Seminar one (SA)	Class Activity any one (CAT)	Class Attendance (AT)	Total Marks (CA+CT+SA+ CAT+AT)		
Elecive-2	91CA108-B	PROGRAMMING WITH VB .NET	15	20	5	5	5	50	50	100

Practical

Board of Study	Couse Code	Course Title	Scheme of Assessment (Marks)						
			Progressive Assessment (PRA)					End Semester Assessment (ESA)	Total Marks (PRA+ ESA)
			Class/Home Assignment 5 number 3 marks each (CA)	Viva1 (5)	Viva2 (5) (SA)	Class Attendance (AT)	Total Marks (CA+CT+SA+ CAT+AT)		
Elecive-2	91CA107-B	PROGRAM MING WITH VB .NET	35	5	5	5	50	50	100

Course-Curriculum Detailing:

This course syllabus illustrates the expected learning achievements, both at the course and session levels, which students are anticipated to accomplish through various modes of instruction including Classroom Instruction (CI), Laboratory Instruction (LI), Sessional Work (SW), and Self-Learning (SL). As the course progresses, students should showcase their mastery of Session Outcomes (SOs), culminating in the overall

achievement of Course Outcomes (COs) upon the course's conclusion.

91CA108-B.1: Analyze working information/practical demonstration on OOP concepts.

Approximate Hours

Item	Appx. Hrs.
Cl	12
LI	12
SW	1
SL	1
Total	26

Session Outcomes (SOs)	**Laboratory Instruction (LI)**	**Classroom Instruction (CI)**	**Self-Learning (SL)**
SO1.1 Analyze the basic operation on OOP Concept. **SO1.2** Examine Working on Methods and Classes. **SO1.3** Examine Inheritance & Polymorphism. **SO1.4** Analyze Working on Control Structures. **SO1.5** Analyze Program development environment.	**LI1.1.** Basic Operations like: Object, Messages, and Methods & Classes. **LI1.2.** Working with Control Structure. **LI1.3.** Working with Inheritance **LI1.4.** Working with Polymorphism **LI1.5.** Working with Methods **LI1.6.** Working with classes	**Unit-1. Object Oriented Programming Language** 1.1 Review of OOP Concepts. 1.2 OOP compared to Traditional Programming Objects. 1.3 Explain Messages, 1.4 Methods & Classes. 1.5 Explain working with Control Structures.-1 1.6 Explain working with Control Structures.-2 1.7 Working with	1. Study of Object Oriented Programming Language.

		Inheritance-1 1.8 Working with Inheritance-2 1.9 Polymorphism. 1.10 Explain advantages of OOP Concepts. 1.11 Usage of OOP Concepts. 1.12 Explain Program development environment.	

SW-1 Suggested Sessional Work (SW):

a. Assignments:

1. Explain OOP Concept.
2. Working with Inheritance and Polymorphism.
3. What is Control Structures?

b. Other Activities (Specify):

Seminar

91CA108-B.2: Analyze various working patterns for .NET Framework.

Approximate Hours

Item	Appx. Hrs.
Cl	12
LI	12
SW	1
SL	1
Total	26

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)
SO2.1 Discuss about .net framework. **SO2.2**. Discuss about Common	**LI2.1.** Implementation of Data type of variables. **LI2.2.** Write a .NET Simple projects in VB.NET.	**Unit-2 .NET** 2.1 Introduction to .NET. 2.2 Explain .NET Framework	1. Study of MSIL, Class Libraries. 2. Study of Visual Development.

Language Runtime, Common Type System **SO2.3**. Discuss about MSIL, Class Libraries **SO2.4**. Discuss about a Programming, Methods and Events. **SO2.5**. Discuss about a Programming into Visual Studio, IDE of VB.NET.	**LI2.3.** Write a .Net program for implementation of Class & Object. **LI2.4.** Write a .Net program for implementation of Constructor. **LI2.5.** Write a .Net program for implementation of Overloading. **LI2.6.** Write a .Net program for implementation of Inheritance.	features & architecture. 2.3 What is CLR? Explain Common Type System. 2.4 What is Visual Studio? 2.5 Explain Visual BASIC. 2.6 What is event drive Programming? 2.7 Explain Visual development Methods & Events. 2.8 What is Variable? 2.9 Explain Data type of variables. 2.10 What is Classes & Objects? 2.11 What is Constructor & Inheritance? 2.12 Explain Access Specifies Overloading.	

SW-2 Suggested Sessional Work (SW):

a. Assignments:

1. Write working with .NET Framework & Architecture.
2. Construct a Program to define a Constructor.
3. Explain OOPs Concept's.

b. Other Activities(Specify):

Seminar and Presentation

91CA108-B.3: Determine appropriate advanced working patterns and graphics for Forms,

Loop Statement & Functions.

Approximate Hours

Item	Appx. Hrs.
Cl	12
LI	12
SW	1
SL	1
Total	26

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)
SO3.1. Discuss about Menu Bar, Toolbar, Project Explorer **SO3.2.** Discuss about Toolbox, Properties Window, Form Designer, Form Layout. **SO3.3.** Discuss about Arrays & Functions. **SO3.4.** Describe Control Flow Statements. **SO3.5.** Discuss about Introduction to GUI programming with Windows Form .	**LI3.1.** Write a .Net program for calculator. **LI3.2.** Write code to implement combo box control for display city of selected state. **LI3.3.** Write a .Net program for implementation of class. **LI3.4.** Write a .Net program for implementation of loop Statement. **LI3.5.** Write a simple projects in VB.NET using these controls. **LI3.6.** Give an example of form designer and form layout.	**Unit-3 : Working with Forms** 3.1 What is Arrays? Explain it works. 3.2 Explain Scope & lifetime of a variable, Collections, Subroutines. 3.3 What is Functions? Explain working with Functions. 3.4 Explain Control flow statements in VB.NET 3.5 What is looping? Explain working with loop statements. 3.6 Explain showing & hiding forms method events. 3.7 Explain Menu Bar, Toolbar, 3.8 Project Explorer. 3.9 Toolbox, Properties Window, Form Designer, Form Layout. 1.10.Explain MsgBox Function, 3.11. InputBox Function, and 3.12. Startup Form.	1. Learn about concept of .net programming 2. Study of GUI Programming with Windows Form.

SW-3 Suggested Sessional Work (SW):

a. Assignments:

1. Explain Control flow statement in details.
2. Explain working with forms.
3. Write a program to display form & controls.

b. **Other Activities(Specify):**

GD & PPT

91CA108-B.4: Analyze various working patterns for More Advanced Tools.

Approximate Hours

Item	Appx. Hrs.
Cl	12
LI	12
SW	1
SL	1
Total	26

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)
SO4.1. Understand the Concept of .NET Tools. **SO4.2.** Understand the Text Boxes, Rich Text Boxes, Labels, Link Labels, Buttons, **SO4.3.** Discuss about the Checkboxes, Radio Buttons, Panels, **SO4.4.** Discuss about the Group Boxes, List Boxes, Checked List Boxes, **SO4.5.** Discuss about the	LI4.1. Create a web page with use of different validation controls. LI4.2. Make use of Pictures box. LI4.3. Create a web page with use of different checkbox LI4.4. Create a web page with use of different list box controls. LI4.5. Create a web page with	**Unit-4 : More Advanced Tools** **4.1.** Explain NET Tools: Control Class. **4.2.** Text Boxes, Rich Text Boxes, **4.3.** Labels, Link Labels, Buttons. **4.4.** Explain Checkbox Scroll Bars, **4.5.** Splitters, Track Bars, **4.6.** Radio Buttons, Panels **4.7.** Group Boxes, List Boxes, **4.8.** Checked List Boxes. **4.9.** Combo Boxes, and Picture Boxes.	1. Study of using tools & Controls. 2. Compare and analyze all tools in .net.

Combo Boxes, and Picture Boxes. **SO4.6.** Discuss about the Notify Icons, Tool Tips, and Timers	use of Radio Button controls. LI4.6. create a web page use of designing menus	**4.10.** Menus, Built-in Dialog Boxes, and Printing, Image Lists. **4.11.** Designing menus. **4.12.** Advanced projects in VB.NET using these controls.	

SW-4 Suggested Sessional Work (SW):

a. Assignments:
1. Discuss applying use of tools & controls in .NET applications.
2. Explain Designing menus in .NET applications.
3. Write a program that shows proper implantation of .NET controls.

b. Other Activities(Specify):
GD & Seminar

91CA108-B.5: Analyze various working patterns for Database Programming with ADO.NET.

Approximate Hours

Item	Appx. Hrs.
Cl	12
LI	12
SW	1
SL	1
Total	26

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)
SO5.1. Understand the Concept of Data Access with ADO.NET: Server Explorer Data Adaptors and Datasets.	**LI5.1.** Make a text editor (IDE) using Rich Textbox Control. **LI5.2.** How design master	**Unit 5: Working with ADO.NET** **5.1.** Database programming with ADO.NET **5.2.** Accessing Data	1. learn through practically database connectivity and use in software

SO5.2. Demonstrate the use of ADO.NET Objects, Data Connection. **SO5.3.** Discuss about Dragging Tables, Dataset, and Data Grid. **SO5.4.** Discuss about Data Adapter Controls, Dataset Schema. **SO5.5.** Discuss Database using ADO.NET Object model.	webpage in own website **LI5.3.** How to implement Calendar Control. **LI5.4.** How to implement Grid Control. **LI5.5.** Working with data set. **LI5.6.** Example of command object.	using Server Explorer. **5.3.** Creating Connection, **5.4.** Accessing Data using Data Adapters. **5.5.** Datasets, using Command & **5.6.** Data Reader, data bind **5.7.** Controls, displaying data in data grid. **5.8.** Processing Access Database using ADO.NET **5.9.** Object model, Connection object, **5.10.** Command object, Add, Delete, **5.11.** move & update records to dataset. **5.12.** Projects in VB.NET using database	development.

SW-5 Suggested Sessional Work (SW):

a. Assignments:

1. Define dataset and data adapter.
2 How to bind controls with database?
3. Explain Simple and Complex Binding.

b. **Other Activities (Specify):**

Seminar and Tutorial

A K S University

Faculty of Computer Application & Information Technology and Science

Department of Computer Application & Information Technology

Curriculum of PGDCA (Post Graduate Diploma in Computer Application)

(Revised as on 01 August 2023)

Brief of Hours suggested for the Course Outcome

Course Outcomes	Class Lecture (Cl)	Laboratory Instruction (LI)	Sessional Work (SW)	Self-Learning (Sl)	Total hour (Cl+SW+Sl)
91CA108-B.1: Analyze working information/practical demonstration on OOP concepts.	12	12	1	1	26
91CA108-B.2: Analyze various working patterns for .NET Framework.	12	12	1	1	26
91CA108-B.3: Determine appropriate advanced working patterns and graphics for Forms, Loop Statement & Functions.	12	12	1	1	26
91CA108-B.4: Analyze various working patterns for More Advanced Tools.	12	12	1	1	26
91CA108-B.5: Analyze various working patterns for Database Programming with ADO.NET.	12	12	1	1	26
Total Hours	60	60	5	5	130

Suggestion for End Semester Assessment

Suggested Specification Table(ForESA)

CO	Unit Titles	Marks Distribution			Total Marks
		R	U	A	
91CA108-B.1	Analyze working information/practical demonstration on OOP concepts	02	03	03	08
91CA108-B.2	Analyze various working patterns for .NET Framework.	02	03	05	10
91CA108-B.3	Determine appropriate advanced working patterns and graphics for Forms, Loop Statement & Functions.	02	03	07	12
91CA108-B.4	Analyze various working patterns for More Advanced Tools.	-	03	7	10
91CA108-B.5	Analyze various working patterns for Database Programming with ADO.NET.	-	05	05	10
Total		06	17	27	50

Legend: R: Remember, U: Understand, A: Apply

The end of semester assessment for Problem Solving and Programming will be held with written examination of 50 marks.

Suggested Learning Resources:

a. Books:

S. No.	Title	Author	Publisher	Edition &Year
1	"Visual Basic .NET Programming Black Book"	by Steven Holzner	Dreamtech Press	27 June 2005
2	" Mastering Visual Basic .NET Database Programming "	by Evangelos Petroutsos and Asli Bilgin.	BPB Publications	2002
3	"Programming in the .NET Environment"	Damien Watkins, Mark J. Hammond, Brad Abrams	Addison-Wesley	2003
4	"Vb.Net Black Book"	by Steven Holzner Drearniech	Dreamtech Press	27 June 2005

Curriculum Development Team

1. Mr. Roopesh Jaiswal, Principal, Department of Computer Science.
2. Mrs. Rashmi Gautam, Teaching Associate, Department of Computer Science.
3. Mrs. Anamika Mishra, Teaching Associate, Department of Computer Science.
4. Mrs. Aarti Singh Parihar, Teaching Associate, Department of Computer Science.
5. Ms. Arjita Singh, Teaching Associate, Department of Computer Science.
6. Mr. Imran Ahmad Ansari Teaching Associate, Department of Computer Science.

COs, POs and PSOs Mapping

Program: PGDCA Computer Science
Course Code: 91CA108-B
Course Title: PROGRAMMING WITH VB .NET

Course Outcomes	Program Outcomes												Program Specific Outcome				
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct studies of difficult problems	Utilization of modern tools	Engineers and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-longlearning	Use fundamental knowledge of math, science, and engineering to comprehend, evaluate, and create computer Programmes in the fields of algorithms, multimedia, big data analytics, machine learning, artificial intelligence, and networking for the effective design of computer-based systems of various complexity	Utilize relevant methods and cutting-edge hardware and software engineering tools to develop and integrate computer systems and related technologies. This PSO2 also encourages lifelong learning for the advancement of technology and its use in multidisciplinary settings	Applying professional engineering solutions for societal improvement while taking into account the environmental context, being conscious of professional ethics, and being able to effectively communicate.	Learn and use the most recent Artificial Intelligence and Data Science technologies in the fields of engineering and computer science	Recognize and examine issues in real life, then offer creative software solutions with the help of AI and Data Science Technologies.
CO1: Analyze working information/practical demonstration on OOP concepts.	1	3	2	2	2	2	3	1	2	1	3	2	2	3	1	2	2
CO2: Analyze various working patterns for .NET Framework.	2	3	2	2	1	2	3	1	1	1	2	2	2	2	2	2	2
CO3: Determine appropriate advanced working patterns and graphics for Forms, Loop Statement & Functions.	2	3	3	2	1	3	3	1	1	2	3	3	1	1	2	2	2
CO4: Analyze various working patterns for More Advanced Tools.	3	2	3	2	1	3	3	1	2	1	3	3	2	3	1	2	2
CO5: Analyze various working patterns for Database Programming with ADO.NET.	2	2	3	2	1	3	3	1	1	1	2	2	2	3	1	1	2

Legend: 1 – Low, 2 – Medium, 3 – High

Course Curriculum Map

POs & PSOs No.	COs No.& Titles	SOs No.	Classroom Instruction(CI)	Self-Learning(SL)
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO1: Analyze working information/practical demonstration on OOP concepts.	SO1.1 SO1.2 SO1.3 SO1.4 SO1.5	Unit-1 : Object Oriented Programming Language 1.1,1.2,1.3,1.4,1.5,1.6,1.7,1.8,1.9,1.10,1.11,1.12	As mentioned in page number _ to _
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO2: Analyze various working patterns for .NET Framework.	SO2.1 SO2.2 SO2.3 SO2.4 SO2.5	Unit-2 : .NET 2.1, 2.2, 2.3, 2.4, 2.5, 2.6,2.7,2.8,2.9,2.10,2.11,2.12	
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO3: Determine appropriate advanced working patterns and graphics for Forms, Loop Statement & Functions.	SO3.1 SO3.2 SO3.3 SO3.4 SO3.5	Unit-3 **:** Working with Forms 3.1,3.2,3.3,3.4,3.5,3.6,3.7,3.8,3.9,3.10,3.11, 3.12	
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO4: Analyze various working patterns for More Advanced Tools.	SO4.1 SO4.2 SO4.3 SO4.4 SO4.5	Unit-4: More Advanced Tools 4.1,4.2,4.3,4.4,4.5,4.6,4.7,4.8,4.9,4.10,4.11,4.12	
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO5: Analyze various working patterns for Database Programming with ADO.NET.	SO5.1 SO5.2 SO5.3 SO5.4 SO5.5	Unit-5 : Working with ADO.NET 5.1,5.2,5.3,5.4,5.5,5.6,5.7,5.8,5.9,5.10,5.11,5.12	

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Curriculum of PGDCA (Post Graduate Diploma in Computer Application)

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Semester-II

Course Code: 91CA205

Course Title: IT Trends and Technologies

Pre-requisite: UG level program in any field of study.

Rationale: In this subject "IT Trends & Technologies" is designed to provide students with a complete understanding of modern information technology concepts and applications. Each unit addresses key aspects of the IT domain, starting with E-governance and Cyber Crime, which are crucial in today's digitally-driven governance structures and security concerns. The subsequent units delve into essential domains such as E-Commerce and Electronic Payment Systems, Wireless Communication, Artificial Intelligence, Cloud Computing, IoT, Big Data, and Management Information Systems (MIS). Through this syllabus, students gain insights into emerging modern technologies, their practical applications, and their impact on various sectors, equipping them with the knowledge and skills necessary for successful careers in the dynamic field of information technology.

Course Outcomes:

91CA205.1: Understand how technology enables government services but also presents security risks in the digital space.

91CA205.2: Explore fundamental aspects of e-commerce and electronic payment systems, touching upon their concepts, technologies, methods, and impacts.

91CA205.3: Discuss about wireless communication, covering technologies, generations, components and related concepts.

91CA205.4: Describe concepts of AI & Expert Systems, cloud computing, briefly touches on IoT and Big data. Its applications, and uses.

91CA205.5: Explain the fundamentals of MIS, the SDLC, and considerations and techniques involved in system development.

Scheme of Studies:

Board of Study	Course Code	Course Title	Scheme of studies (Hours/Week)					Total Credits (C)
			Cl	LI	SW	SL	Total Study Hours (CI+LI+SW+SL+T)	
Program Core (PCC)	91CA205	IT Trends and Technologies	4	0	2	1	7	4

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Legend: **CI:** Classroom Instruction (Includes different instructional strategies i.e. Lecture (L) and Tutorial (T) and others),
LI: Laboratory Instruction (Includes Practical performances in laboratory workshop, field or other locations using different instructional strategies)
SW: Sessional Work (includes assignment, seminar, mini project etc.),
SL: Self Learning,
C: Credits.

Note: SW & SL has to be planned and performed under the continuous guidance and feedback teachers ensure outcome of Learning.

Scheme of Assessment:

Theory

Board of Study	Couse Code	Course Title	Scheme of Assessment (Marks)							
			Progressive Assessment (PRA)						End Semester Assessment (ESA)	Total Marks (PRA+ ESA)
			Class/Home Assignment 5 number 3 marks each (CA)	Class Test 2 (2 best out of 3) 10 marks each (CT)	Seminar one (SA)	Class Activity any one (CAT)	Class Attendance (AT)	Total Marks (CA+CT+SA+ CAT+AT)		
PCC	9ICA205	IT Trends and Technologies	15	20	5	5	5	50	50	100

Course-Curriculum Detailing:

This course syllabus illustrates the expected learning achievements, both at the course and session levels, which students are anticipated to accomplish through various modes of instruction including Classroom Instruction (CI), Laboratory Instruction (LI), Sessional Work (SW), and Self-Learning (SL). As the course progresses, students should showcase their mastery of Session Outcomes (SOs), culminating in the overall achievement of Course Outcomes (COs) upon the course's conclusion.

2CS05.1: Analyze the complexity/performance of different algorithms.

Approximate Hours

Item	Appx. Hrs.
Cl	12
LI	0
SW	2
SL	1
Total	15

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)
SO1.1 Describe the basic definition and scope of e-governance, including concepts such as e-democracy and citizen participation. **SO1.2** Discuss Government initiatives to promote e-governance and encourage citizen engagement, possibly through public-private partnerships (PPP). **SO1.3** Explore about e-governance websites and services like MPONLINE. Specific government projects and services like the UIDAI & Aadhar. **SO1.4** Describe introduction to cybercrime as a concept and its relevance in the digital age. **SO1.5** Identification of various types of cyberattacks. **SO1.6** Categorization of cybercrimes		**Unit-1** **E-governance**: 1.1 E-governance, e-democracy. 1.2 Government efforts to encourage citizen participation, 1.3 PPP model, **1.4** E-governance websites & services, **1.5** MPONLINE services, **1.6** UIDI & Aadhar **1.7** E- governance mobile apps like UMANG, **1.8** Digital Locker, Digital Library. **1.9** Cyber Crime: Introduction, **1.10** types of attacks like spyware, malware, spam mail, **1.11** logic bombs, denial of service **1.12** types of cyber-crime like email fraud, phishing, spoofing, hacking, identity theft.	1. Study to emergence of e-governance in India. 2. Study on digital India. pillars.

SW-1 Suggested Sessional Work (SW):

a. Assignments:

1. Explain E-governance with its ethical issues.
2. What is cyber-crime? Also explain their type.
3. Explain e-governance website and services.

b. Other Activities (Specify):

Seminar

2CS05.2: Analyze different paradigms to solve graph problems.

Approximate Hours

Item	Appx. Hrs.
Cl	12
LI	0
SW	2
SL	1
Total	15

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)
SO2.1 Recall e-commerce, covering its concepts and outlining its advantages and disadvantages. **SO2.2** Mention of technology's role in e-commerce, possibly implying the use of platforms, software, and infrastructure. **SO2.3** Discussion of the benefits and impact of e-commerce, likely including aspects like global reach, convenience, and		**UNIT-2 E-Commerce-** 2.1 Introductions, Concepts, 2.2 Advantages and Disadvantages, 2.3 technology in E-Commerce, 2.4 Benefits and 2.5 Impact of e-commerce 2.6 Electronic Payment Systems: Introduction 2.7 Types of Electronic Payment Systems, 2.8 RTGS, IMPS,	1. Study of payment systems provided by different banks. 2. Study of e-wallet, UPI,BHIM and Paytm.

market expansion. **SO2.4** Explain electronic payment systems and their significance in facilitating online transactions. **SO2.5** Learning online shopping and marketing in the context of electronic payment systems, suggesting the integration of payment methods into e-commerce transactions.		NEFT, 2.9 Payment Gateway, Debit & Credit Card, 2.10 Internet Banking, Mobile Wallet, 2.11 UPI, BHIM, PAYTM App, 2.12 Online Shopping, Online Marketing.	

SW-2 Suggested Sessional Work (SW):

a. Assignments:

1. Explain technology used in E- Commerce.
2. Explain different ways of Electronic payment system with example.
3. Define internet banking. Discuss its services.

a. Other Activities (Specify):

Seminar

2CS05.3: Determine the appropriate data structure for solving a particular set of Problems.

Approximate Hours

Item	Appx. Hrs.
Cl	12
LI	0
SW	2
SL	1
Total	15

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)

SO3.1. Understanding Bluetooth, Wi Fi, and mobile technologies prepares students for roles in telecommunications, networking, or mobile app development. **SO3.2** Gaining knowledge about ad-hoc networks, **S**ensor networks, **SO3.3** Learning the GIS (Geographic Information Systems) opens up opportunities in fields like IoT, smart cities, and location-based services. **SO3.4** Understanding of mobile communication systems.		**UNIT-3 Wireless Communication:** 3.1 Introduction, 3.2 Bluetooth, Wi Fi, 3.3 Wi Max, Li Fi, 3.4 Mobile technology, 3.5 2G, 3G, 3.6 4G, 5G services, 3.7 IMEI, SIM, 3.8 IP Telephony, Soft phone, 3.9 Voice mail, Ad-hoc & 3.10 sensor networks, GIS, ISP, 3.11 Mobile Computing, Cellular System Cell, 3.12 Mobile Switching office, Hands off, Base Station.	1. Study of New technology in Gi Fi. 2.Study of Mobile Communication.

SW-3 Suggested Sessional Work (SW):

a. Assignments:

1. Define with example different ways of wireless communication.
2. Differentiate between Wireless and Ad-hoc network.
3. What is GIS? Explain its key element.

b. Other Activities(Specify):

Seminar

2CS05.4: Categorize the different problems in various classes according to their complexity.

Approximate Hours

Item	Appx. Hrs.
Cl	11
LI	0

SW	2
SL	1
Total	14

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)
SO4.1. Explain AI concepts, expert systems, and their applications prepares students for roles in AI development, machine learning, and data analysis. **SO4.2.** Gaining Knowledge about different cloud types, applications, and services is essential for students pursuing careers in cloud computing, IT infrastructure management, or software development. **SO4.3.** Understanding IoT applications and uses prepares students for roles in IoT development, smart devices, and data analytics. **SO4.4** Gaining knowledge about big data		**UNIT-4 Artificial Intelligence and Expert system** 4.1 - Concepts of AI & 4.2 Expert Systems, 4.3 Merits and Demerits of Expert system, 4.4 Application of Expert system and 4.5 **AI Cloud** computing— 4.6 Introduction, types, application, 4.7 services, Google play store, Apple store, 4.8 **IOT—** Introduction, 4.9 Application & use 4.10 **Big Data-** 4.11 Introducti on, Application & us	1. Study different form type 2. Study of control and their property sheet

concepts, applications, and uses equips students for roles in data science, analytics, and business intelligence.			

SW-4 Suggested Sessional Work (SW):

a. Assignments:

1. Explain Cloud delivery models.
2. Explain concept of AI and Expert system.
3. Define Big data? Explain characteristics of Big data.

b. Other Activities(Specify):

Seminar

Approximate Hours

Item	Appx. Hrs.
Cl	13
LI	0
SW	2
SL	1
Total	16

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)
SO5.1. Understanding fundamentals of MIS, including its role in organizational information management and decision-making processes. SO5.2 Gain knowledge about the phases and methodologies involved in the		**Unit 5 MIS –** 5.1. Introduction, 5.2. System Development Life Cycle, 5.3. Various phases of system development, 5.4. Considerations for system	1.Study of feasibility study in SDLC. 2. Study of MIS applications.

System Development Life Cycle. SO5.3. Acquire proficiency in data analysis techniques and the creation of a data dictionary to document data elements, attributes, and relationships within an information system. SO5.4 Familiarize with decision support tools such as decision tables and decision trees used in the system design and development process. SO5.5. Learn about the process of designing user interfaces and forms for data entry and retrieval, considering usability and user experience principles.		planning, 5.5. Initial Investigation, 5.6. Determining Users Requirements and Analysis 5.7. Fact Finding Process and Techniques 5.8. Creating Reports and Labels 5.9. Data Analysis, 5.10. data Dictionary, 5.11. decision table, 5.12. decision tree & 5.13. form design process.	

SW-5 Suggested Sessional Work (SW):

a. Assignments:

1. Define MIS and Describe different phases of SDLC in MIS.
2. Differentiate decision table and decision tree in MIS.
3. Explain various method of fact finding.

b. **Other Activities (Specify):**

Seminar

Brief of Hours suggested for the Course Outcome

Course Outcomes	Class Lecture (Cl)	Laboratory Instruction (LI)	Sessional Work (SW)	Self-Learning (Sl)	Total hour (Cl+SW+Sl)
91CA205.1. Understand how technology	12	0	2	1	15

enables government services but also presents security risks in the digital space.					
91CA205.2.: Explore fundamental aspects of e-commerce and electronic payment systems, touching upon their concepts, technologies, methods, and impacts.	12	0	2	1	15
91CA205.3.: Discuss about wireless communication, covering technologies, generations, components and related concepts.	12	0	2	1	15
91CA205.4. Describe concepts of AI & Expert Systems, cloud computing, briefly touches on IoT and Big data. Its applications, and uses.	11	0	2	1	15
91CA205.5: Explain the fundamentals of MIS, the SDLC, and considerations and techniques involved in system development.	13	0	2	1	15

Total Hours	60	0	10	5	75

Suggestion for End Semester Assessment

Suggested Specification Table(ForESA)

CO	Unit Titles	Marks Distribution			Total Marks
		R	U	A	
91CA205.1.	Understand how technology enables government services but also presents security risks in the digital space.	02	03	03	08
91CA205.2.	Explore fundamental aspects of e-commerce and electronic payment systems, touching upon their concepts, technologies, methods, and impacts.	02	03	05	10
91CA205.3	Discuss about wireless communication, covering technologies, generations, components and related concepts.	02	03	07	12
91CA205.4	Describe concepts of AI & Expert Systems, cloud computing, briefly touches on IoT and Big data. Its applications, and uses	-	3	7	10
91CA205.5	Explain the fundamentals of MIS, the SDLC, and considerations and techniques involved in system development	-	05	05	10
Total		06	17	27	50

Legend: R: Remember, U: Understand, A: Apply

The end of semester assessment for Problem Solving and Programming will be held with written examination of 50 marks.

Suggested Learning Resources:

a. Books:

S. No.	Title	Author	Publisher	Edition &Year
1	"Fundamentals of Information Technology complete"	By Alex Leon & Mleon	Vikas Publications	
2	" Frontiers of Electronic Commerce"	by - Kalakota, Ravi	Stone, Tom	
3	"E-Commerce An Indian Perspective"	by - Pt Joseph,	Pearson New International	Recent Magazines of Computers and Communication
4	"System Analysis & Design"	by V K Jam	Dream tech Press	
5	"Modern System Analysis & Design"	by A Hoffer, F George, S Valaciah	Low Priced Edn. Pearson Education	
6	"Information Technology & Computer Applictions"	by V K. Kapoor	Sultan Chand & Sons, New Delhi.	

Curriculum Development Team

1. Mr. Roopesh Jaishwal , HOD, Department of Computer Science .
2. Ms. Anamika Mishra, Department of Computer Science.
3. Ms. Rashmi Rani Gautam, Department of Computer Science.
4. Ms. Aarti Singh Parihar, Department of Computer Science.
5. Miss. Arjita Singh Rajawat, Department of Computer Science.
6. Mr. Imran Ahmad Ansari, Department of Computer Science.

COs, POs and PSOs Mapping

Program: PGDCA. Computer Science
Course Code: 91CA205
Course Title: IT Trends and Technologies

Course Outcomes	Program Outcomes												Program Specific Outcome				
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct studies of difficult problems	Utilization of modern tools	Engineers and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-longlearning	Use fundamental knowledge of math, science, and engineering to comprehend, evaluate, and create computer Programmes in the fields of algorithms, multimedia, big data analytics, machine learning, artificial intelligence, and networking for the effective design of computer-based systems of various complexity	Utilize relevant methods and cutting-edge hardware and software engineering tools to develop and integrate computer systems and related technologies. This PSO2 also encourages lifelong learning for the advancement of technology and its use in multidisciplinary settings	Applying professional engineering solutions for societal improvement while taking into account the environmental context, being conscious of professional ethics, and being able to effectively communicate.	Learn and use the most recent Artificial Intelligence and Data Science technologies in the fields of engineering and computer science	Recognize and examine issues in real life, then offer creative software solutions with the help of AI and Data Science Technologies.
CO1: Understand how technology enables government services but also presents security risks in the digital space.	1	3	2	2	2	2	3	1	2	1	3	2	2	3	1	2	2
CO2: Explore fundamental aspects of e-commerce and electronic payment systems, touching upon their concepts, technologies, methods, and impacts.	2	3	2	2	1	2	3	1	1	1	2	2	2	2	2	2	2
CO3: Discuss about wireless communication, covering technologies, generations, components and related concepts.	2	3	3	2	1	3	3	1	1	2	3	3	1	1	2	2	2
CO4: Describe concepts of AI & Expert Systems, cloud computing, briefly touches on IoT and Big data. Its applications, and uses.	3	2	3	2	1	3	3	1	2	1	3	3	2	3	1	2	2
CO5: Explain the fundamentals of MIS, the SDLC, and considerations and techniques involved in system development.	2	2	3	2	1	3	3	1	1	1	2	2	2	3	1	1	2

Legend: 1 – Low, 2 – Medium, 3 – High

Course Curriculum Map

POs & PSOs No.	COs No.& Titles	SOs No.	Classroom Instruction(CI)	Self-Learning(SL)
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO1: Understand how technology enables government services but also presents security risks in the digital space.	SO1.1 SO1.2 SO1.3 SO1.4 SO1.5 SO1.6	Unit-1 : E-governance: 1.1,1.2,1.3,1.4,1.5,1.6	As mentioned in page number _ to _
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO2: Explore fundamental aspects of e-commerce and electronic payment systems, touching upon their concepts, technologies, methods, and impacts.	SO2.1 SO2.2 SO2.3 SO2.4 SO2.5	Unit-2: E-Commerce- 2.1, 2.2, 2.3, 2.4,	
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO3: Discuss about wireless communication, covering technologies, generations, components and related concepts.	SO3.1 SO3.2 SO3.3 SO3.4	Unit-3: Wireless Communication 3.1,3.2,3.3,3.4,3.5,3.6,3.7	
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO4: Describe concepts of AI & Expert Systems, cloud computing, briefly touches on IoT and Big data. Its applications, and uses.	SO4.1 SO4.2 SO4.3 SO4.4	Unit-4: Artificial Intelligence and Expert system 4.1,4.2,4.3,4.4	
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO5: Explain the fundamentals of MIS, the SDLC, and considerations and techniques involved in system development.	SO5.1 SO5.2 SO5.3 SO5.4 SO5.5	Unit-5: MIS 5.1,5.2,5.3,5.4,5.5,5.6	

A K S University

Faculty of Computer Application & Information Technology and Science

Department of Computer Application & Information Technology

Curriculum of PGDCA (Post Graduate Diploma in Computer Application)

(Revised as on 01 August 2023)

Semester-II

Course Code: **91CA206**

Course Title : Internet and Web Designing

Pre-requisite: Uses of Text Editor

Rationale: Learn how to design and develop a web page using HTML and CSS. Design and develop a web site using text, images, links, lists, and tables for navigation and layout. Style your page using CSS. Learn how to use database in web design.

Course Outcomes:

91CA206.1: Describe the concepts of WWW including browser and http protocol.
91CA206.2: List the various HTML tags and use them to develop the user friendly web pages.
91CA206.3: Define the CSS with its types and use them to provide the styles to the web pages at various levels.
91CA206.4: Develop the modern web pages using the html and CSS features with different layouts as per need of applications.
91CA206.5: Gaining knowledge about the Domain Name Registration and Web Hosting.

Scheme of Studies:

Board of Study	Course Code	Course Title	Scheme of studies(Hours/Week)					Total Credits (C)
			Cl	LI	SW	SL	Total Study Hours (CI+LI+SW+SL+T)	
Program Core (PCC)	91CA206	Internet and Web Designing	4	4	2	1	11	6

Legend: **CI:** Classroom Instruction (Includes different instructional strategies i.e. Lecture (L) and Tutorial (T) and others),
LI: Laboratory Instruction (Includes Practical performances in laboratory workshop,field or other locations using different instructional strategies)
SW: Sessional Work (includes assignment, seminar, mini project etc.),
SL: Self Learning,
C: Credits.

Note: SW & SL has to be planned and performed under the continuous guidance and feedback teachers ensure outcome of Learning.

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Curriculum of PGDCA (Post Graduate Diploma in Computer Application)

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Scheme of Assessment:

Theory

Board of Study	Couse Code	Course Title	Scheme of Assessment (Marks)							
			Progressive Assessment (PRA)						End Semester Assessment (ESA)	Total Marks (PRA+ ESA)
			Class/Home Assignment 5 number 3 marks each (CA)	Class Test 2 (2 best out of 3) 10 marks each (CT)	Seminar one (SA)	Class Activity any one (CAT)	Class Attendance (AT)	Total Marks (CA+CT+SA+ CAT+AT)		
PCC	91CA206	Internet and Web Designing	15	20	5	5	5	50	50	100

Practical

Board of Study	Couse Code	Course Title	Scheme of Assessment (Marks)						
			Progressive Assessment (PRA)					End Semester Assessment (ESA)	Total Marks (PRA+ ESA)
			Class/Home Assignment 5 number 3 marks each (CA)	Viva1 (5)	Viva2 (5) (SA)	Class Attendance (AT)	Total Marks (CA+CT+SA+ CAT+AT)		
PCC	1CA206	Internet and Web Designing	35	5	5	5	50	50	100

Course-Curriculum Detailing:

This course syllabus illustrates the expected learning achievements, both at the course and session levels, which students are anticipated to accomplish through various modes of instruction including Classroom Instruction (CI), Laboratory Instruction (LI), Sessional Work (SW), and Self-Learning (SL). As the course progresses, students should showcase their mastery of Session Outcomes (SOs), culminating in the overall achievement of Course Outcomes (COs) upon the course's conclusion.

91CA206.1: Describe the concepts of WWW including browser and http protocol.

Approximate Hours

Item	Appx. Hrs.
Cl	12
LI	12
SW	2
SL	1
Total	27

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)
SO1.1 Understand Growth of internet. **SO1.2** Understand Sending and Receiving E-mail. **SO1.3** Discuss Network and TCP/IP Protocols **SO1.4** Identify various types of ISP and its function. **SO1.5** Discuss various internet connectivity	**LI1.1:** Write a list of various web protocol. **LI1.2:** To Perform various types of internet connectivity **LI1.3:** To perform sending and receiving E-mail. **LI1.4:**Explore various Web Browsers. **LI1.5**:Explore various Search Engines **LI1.6:** Exlore various Social Media websites.	**Unit-1.About Internet and Web Protocol** 1.1 Internet Evolution and concept , advantage and disadvantage of internet 1.2 Internet Vs Intranet 1.3 Growth of Internet 1.4 Internet Service Provider(ISP) and its function 1.5 Internet Connectivity: Dialup, Leased line and VSAT 1.6 URLs ,Portals, Internet Services Application 1.7 E-MAIL: Basic of sending and receiving, free email services 1.8 World Wide Web: History, Working of Web Browsers and its function 1.9 Concept of Search Engines, 1.10 Searching the web, web server 1.11 HTTP, Web Protocol, 1.12 Network and TCP/IP Protocol	1. Analysis of different internet connectivity 2. Study of OSI and TCP/IP Model

SW-1 Suggested Sessional Work (SW):
Assignments:

1. Explain different types of protocol in internet.
2. Discuss different types of internet connectivity.
3. Explain sending and receiving mail step by step.

91CA206.2: List the various HTML tags and use them to develop the user friendly web pages.

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Department of Computer Application & Information Technology

Curriculum of PGDCA (Post Graduate Diploma in Computer Application)

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Approximate Hours

Item	Appx. Hrs.
Cl	13
LI	12
SW	2
SL	1
Total	28

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)
SO2.1 Design registration form **SO2.2** Discuss about Font style **SO2.3** Analysis of different types of HTML Tags	**LI2.1. .** Write an HTML code to illustrate the usage of the Ordered List **LI2.2.** Write an HTML code to illustrate the usage of the Unordered List **LI2.3.** Write an HTML code to illustrate the usage of the Definition List **LI2.4.** Write an HTML code to display your education details in a tabular format. **LI2.5.** Write an HTML code to create your Institute website Department Website and **LI2.6.** Write an HTML code to create your Tutorial website for specific subject.	**Unit-2 HTML** 2.1 Concept of Hypertext, Versions of HTML 2.2 Element of HTML, Syntax ,Tags and Attribute, Head and Body Section 2.3 HTML Document 2.4 Inserting Text and Image 2.5 Hyperlink 2.6 Background and Color Control 2.7 Different HTML Tags 2.8 Table Layout and Presentation 2.9 Creating Lists ,Types of List and its tags 2.10 Uses of Font and attributes 2.11 Use of Frame and Forms in Web Pages 2.12 Creating Frameset, Opening Pages into Frames 2.13 Design Form Control	1. Study of different HTML Tags. 2. Study of different design form control

SW-2 Suggested Sessional Work (SW):

Assignments:

1. Write an HTML code to create a frameset having header navigation and content sections.

2. Write an HTML code to display your CV on a web page.
3. Write an HTML code to create a Home page having three links: About Us Our Services and Contact Us. Create separate web pages for the three links

91CA206.3: Define the CSS with its types and use them to provide the styles to the web pages at various levels.

Approximate Hours

Item	Appx. Hrs.
Cl	13
LI	12
SW	2
SL	1
Total	28

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)
SO3.1. Recall different HTML Tags **SO3.2.** Describe CSS and its Types **SO3.3.** Explain CSS Selector **SO3.4.** Discuss Javascript and Branching and Looping statement **SO3.5.** Describe Event and Document Object Model	LI3.1. Write an HTML code to demonstrate the usage of inline CSS. LI3.2. Write an HTML code to demonstrate the usage of embedded CSS. LI3.3. Write a JavaScript program to print the contents of the current window. LI3.4. Write a program to demonstrate the use of variables in JS. LI3.5. Write a program to demonstrate the use of function in JS. LI3.6. Write a program to demonstrate the use of event in JS.	**Unit-3 : CSS and JS** 3.1 Introduction and creating style 3.2 Using Inline and External CSS 3.3 Creating Divs with ID style 3.4 Creating Tag& Class style 3.5 Creating borders 3.6 Navigation links, 3.7 Creating effects with CSS 3.8 Javascript Overview, Syntax and Conventions 3.9 Variable and Expression 3.10 Branching and Looping Statements 3.11 Function 3.12 Array of Object 3.13 Event and Document Object Model:-onClick,onMouseOver, onSubmit, onFocus, onChange, onBlur, onLoad onUnload, Alerts, Prompt , Confirms	1. Study of CSS 2. Study of Javascript

SW-3 Suggested Sessional Work (SW):

Assignments:

1. Write an HTML code to demonstrate the usage of external CSS.
2. Write a JavaScript program to find the area of a triangle where lengths of the three of its sides are 5, 6, 7.
3. Write a JavaScript program to calculate multiplication and division of two numbers (input from

user).

91CA206.4: Develop the modern web pages using the html and CSS features with different layouts as per need of applications.

Approximate Hours

Item	Appx. Hrs.
Cl	11
LI	12
SW	2
SL	1
Total	26

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)
SO4.1. Explain Expression web **SO4.2.** Explore WYSIWYG HTML editor **SO4.3.** Describe to create new site and new page	LI4.1. Explain how you can make website live inExpression Web. LI4.2. How you can perform validation in ExpressionWeb LI4.3. How you can mail to formin Expression Web LI4.4. Write a program to demonstrate formatting text in a site using HTML. LI4.5. Write a program to demonstrate use of table tags. LI4.6. Explore different types of HTML editors.	**Unit-4 : Designing with Expression Web** 4.1 Introduction to WYSIWYG HTML editor, advantages of using HTML editors, 4.2 creating a new site 4.3 creating a new page 4.4 Inserting and Formatting text 4.5 Creating and Inserting Image 4.6 Adding Image with alternative text 4.7 Aligning Image 4.8 Creating Email Link, Linking to other websites, Testing and Targeting link 4.9 Organizing files and folders 4.10 Designing Accessible tables, 4.11 Styling a table, Editing table layout, adding style to a table using CSS	1. Study Expression Web and its application 2. Study of Designing of websites

SW-4 Suggested Sessional Work (SW):
Assignments:

1. Design a website for your university using Expression Web.
2. Design a website for university e-library using Expression Web.

91CA206.5: **Gaining knowledge about the Domain Name Registration and Web Hosting.**

Approximate Hours

Item	Appx. Hrs.
Cl	11
LI	12
SW	2
SL	1
Total	26

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)
SO5.1. Describe Word Press **SO5.2.** Explain create post and page **SO5.3.** Identify different types of FTP command **SO4.4.** Explain Randomized algorithm **SO5.5.** Discuss webhosting and Domain Registration	LI5.1. Write a program to registration domain and Web Hosting LI5.2. Write a different FTP Command. LI5.3. Give an example of creating and adding logo in a page. LI5.4. Give an example of creating Menu LI5.5. Compare various web protocols. LI5.6. Write procedure to Web Hosting.	**Unit 5: Word Press** 5.1. word press, Installation, login, Overview of admin panel 5.2. User Profile Word Press Theme, Theme depository 5.3. Create and add a new logo 5.4. Setup a static home page Create Posts, Add a post, Delete a post, Add image to a post 5.5. Create page and Delete page 5.6. Create Menu, Adding Widget 5.7. Add a Hyperlink to some text and image 5.8. Different Web Protocol: FTP, DNS ,TCP,UDP, HTTP, IP, Telnet 5.9. 5.12 FTP Commands:- viewing files and directories , transfer and rename files 5.10. FTP with FileZilla and CuteFTP Web Hosting , 5.11. Procedure for Web Hosting ,Space on Host Server for Website Domain Name and DNS ,Procedure to	1.Study of Word Press 2. Web Hosting and Domain Name Registration

		register a Domain name	

SW-5 Suggested Sessional Work (SW):

Assignments:

1. Design a website for MP Tourism and booking using Expression Web and Word Press.
2. Design a website for online exam using Expression Web and Word Press.
3. Design a Website for E-ticketing system using Expression Web and Word Press.

Brief of Hours suggested for the Course Outcome

Course Outcomes	Class Lecture (Cl)	Laboratory Instruction (LI)	Sessional Work (SW)	Self-Learning (Sl)	Total hour (Cl+SW+Sl)
91CA206.1: Describe the concepts of WWW including browser and http protocol.	12	12	2	1	27
91CA206.2: List the various HTML tags and use them to develop the user friendly web pages.	13	12	2	1	28
91CA206.3: Define the CSS with its types and use them to provide the styles to the web pages at various levels.	13	12	2	1	28
91CA206.4 Develop the modern web pages using the html and CSS features with different layouts as per need of applications.	11	12	2	1	26
91CA206.5: Gaining knowledge about the Domain Name Registration and Web Hosting.	11	12	2	1	26
Total Hours	60	60	10	5	135

Suggestion for End Semester Assessment

Suggested Specification Table(ForESA)

CO	Unit Titles	Marks Distribution			Total Marks
		R	U	A	
91CA206.1	Describe the concepts of WWW including browser and http protocol.	02	03	03	08
91CA206.2	List the various HTML tags and use them to develop the user friendly web pages.	02	03	05	10

91CA206.3	Define the CSS with its types and use them to provide the styles to the web pages at various levels.	02	03	07	12
91CA206.4	Develop the modern web pages using the html and CSS features with different layouts as per need of applications.	-	3	7	10
91CA206.5	Gaining knowledge about the Domain Name Registration and Web Hosting.	-	05	05	10
Total		06	17	27	50

Legend: R: Remember, U: Understand, A: Apply

The end of semester assessment for Problem Solving and Programming will be held with written examination of 50 marks.

Suggested Learning Resources:

Books:

S. No.	Title	Author	Publisher	Edition &Year
1	"HTML and CSS"	by Jon Duckett	John Wiley	2012
2	"Web Technology and Design"	by C. Xavier	Tata McGraw Hill	1st Edition ,2018
3	"WordPress Web Development: Basic to Advance"	by Sayyed Majid	Code Academy	2021

Curriculum Development Team

1. Mr. Roopesh Jaiswal, Principal, Department of Computer Science.
2. Mrs. Aarti Singh Parihar, Teaching Associate, Department of Computer Science.
3. Mrs. Anamika Mishra, Teaching Associate, Department of Computer Science.
4. Mrs. Rashmi Gautam, Teaching Associate, Department of Computer Science.
5. Mrs. Arjita Singh, Teaching Associate, Department of Computer Science.
6. Mr. Imran Ahmad Ansari, Teaching Associate, Department of Computer Science.

COs, POs and PSOs Mapping

Program: PGDCA
Course Code: 91CA206
Course Title: Internet and Web Designing

Course Outcomes	Program Outcomes												Program Specific Outcome				
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
	Domain Knowledge	Problem Analysis	Design/Development of Solutions	Conduct Investigations of Problems	Modern Tool Usage	Professionals and Society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-longlearning	Use fundamental knowledge of math, science, and engineering to comprehend, evaluate, and create computer Programmes in the fields of algorithms, multimedia, big data analytics, machine learning, artificial intelligence, and networking for the effective design of computer-based systems of various complexity	Utilize relevant methods and cutting-edge hardware and software engineering tools to develop and integrate computer systems and related technologies. This PSO2 also encourages lifelong learning for the advancement of technology and its use in multidisciplinary settings	Applying professional engineering solutions for societal improvement while taking into account the environmental context, being conscious of professional ethics, and being able to effectively communicate.	Learn and use the most recent Artificial Intelligence and Data Science technologies in the fields of engineering and computer science	Recognize and examine issues in real life, then offer creative software solutions with the help of AI and Data Science Technologies.
CO1: Describe the concepts of WWW including browser and http protocol.	1	3	2	2	2	2	3	1	2	1	3	2	2	3	1	2	2
CO2: List the various HTML tags and use them to develop the user friendly web pages.+	2	3	2	2	1	2	3	1	1	1	2	2	2	2	2	2	2
CO3: Define the CSS with its types and use them to provide the styles to the web pages at various levels.	2	3	3	2	1	3	3	1	1	2	3	3	1	1	2	2	2
CO4: Develop the modern web pages using the html and CSS features with different layouts as per need of applications.	3	2	3	2	1	3	3	1	2	1	3	3	2	3	1	2	2
CO5: Gaining knowledge about the Domain Name Registration and Web Hosting.	2	2	3	2	1	3	3	1	1	1	2	2	2	3	1	1	2

Legend: 1 – Low, 2 – Medium, 3 – High

Course Curriculum Map

POs & PSOs No.	COs No.& Titles	SOs No.	Classroom Instruction(CI)	Self-Learning(SL)
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO1: Describe the concepts of WWW including browser and http protocol.	SO1.1 SO1.2 SO1.3 SO1.4 SO1.5	Unit-1.About Internet and Web Protocol 1.1,1.2,1.3,1.4,1.5,1.6,1.7,1.8,1.9,1.10	As mentioned in page number _ to _
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO2: List the various HTML tags and use them to develop the user friendly web pages.	SO2.1 SO2.2 SO2.3	Unit-2 HTML 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9, 2.10,2.11,2.12,2.13	
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO3: Define the CSS with its types and use them to provide the styles to the web pages at various levels.	SO3.1 SO3.2 SO3.3 SO3.4 SO3.5	Unit-3 : CSS and JS 3.1,3.2,3.3,3.4,3.5,3.6,3.7,3.8,3.9,3.10,3.11, 3.12,3.13	
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO4: Develop the modern web pages using the html and CSS features with different layouts as per need of applications.	SO4.1 SO4.2 SO4.3	Unit-4 : Designing with Expression Web 4.1,4.2,4.3,4.4,4.5,4.6,4.7,4.8,4.9,4.10,4.1 1,4.12	
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO5: Gaining knowledge about the Domain Name Registration and Web Hosting.	SO5.1 SO5.2 SO5.3 SO5.4 SO5.5	Unit 5: Word Press 5.1,5.2,5.3,5.4,5.5,5.6,5.7,5.8,5.9,5.10,5. 11,5.12,5.13,5.14,5.15	

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Semester-II

Course Code: 91CA207-C

Course Title : DTP WITH PAGE MAKER – PHOTOSHOP AND TYPING SKILLS

Pre-requisite: Diploma level course in DTP and Basic Knowledge of typing.

Rationale: Introduce students to the concept of DTP and Basics of Typing software. This course introduces students to the principles of design applicable to publications created using desktop publishing software and computer technology. Special attention is given to design principles, typography, and layout and production techniques. This class focuses on gaining professional-level skills and knowledge. The essential building blocks of design type, art and line in new and creative ways, learn clever ways to locate and use resources such as graphics and scanned art, learn to think about audience and medium and how those affect the way you craft your message and also be learning to use new technical tools to create those effective messages.

Course Outcomes:

91CA207-C.1: Analyze the Basic Concept of DTP and working with Page maker and Photoshop. Various keyboard typing convention.
91CA207-C.2: Analyze/Examine the basic Concept of Adobe Page maker – Page Layout, Palette, Columns and Gutters. Introduction to InDesign and interface.etc.
91CA207-C.3: Analyze working with Pagemaker- Text Wrapping, Widows & Orphan lines, OLE, plugin, printing publication , etc
91CA207-C.4: Analyze/Examine the basic Concept and Working with Adobe Photoshop - supported file extensions, color models, palette and filter , etc .
91CA207-C.5: Analyze/ Prepare Typing and Keyboarding for professionals.

Scheme of Studies:

Board of Study	Course Code	Course Title	Scheme of studies(Hours/Week)					Total Credits (C)
			Cl	LI	SW	SL	Total Study Hours (CI+LI+SW+SL+T)	
Program Core (PCC)	91CA207-C	DTP with PageMaker-Photoshop and Typing Skill	4	4	1	1	10	6

Legend: **CI:** Classroom Instruction (Includes different instructional strategies i.e. Lecture

(L) and Tutorial (T) and others),

LI: Laboratory Instruction (Includes Practical performances in laboratory workshop,field or other locations using different instructional strategies)

SW: Sessional Work (includes assignment, seminar, mini project etc.),

SL: Self Learning,

C: Credits.

Note: SW & SL has to be planned and performed under the continuous guidance and feedback teachers ensure outcome of Learning.

Scheme of Assessment:

Theory

Board of Study	Couse Code	Course Title	Scheme of Assessment (Marks)							
			Progressive Assessment (PRA)						End Semester Assessment (ESA)	Total Marks (PRA+ ESA)
			Class/Home Assignment 5 number 3 marks each (CA)	Class Test 2 (2 best out of 3) 10 marks each (CT)	Seminar one (SA)	Class Activity any one (CAT)	Class Attendance (AT)	Total Marks (CA+CT+SA+ CAT+AT)		
PCC	91CA207-C-B	DTP with PageMaker – Photoshop and Typing Skills.	15	20	5	5	5	50	50	100

Practical

Board of Study	Couse Code	Course Title	Scheme of Assessment (Marks)						
			Progressive Assessment (PRA)					End Semester Assessment (ESA)	Total Marks (PRA+ ESA)
			Class/Home Assignment 5 number 3 marks each (CA)	Viva1 (5)	Viva2 (5) (SA)	Class Attendance (AT)	Total Marks (CA+CT+SA+ CAT+AT)		

PCC	91CA207-C-B	DTP with PageMaker – Photoshop and Typing Skills.	35	5	5	5	50	50	100

Course-Curriculum Detailing:

This course syllabus illustrates the expected learning achievements, both at the course and session levels, which students are anticipated to accomplish through various modes of instruction including Classroom Instruction (CI), Laboratory Instruction (LI), Sessional Work (SW), and Self-Learning (SL). As the course progresses, students should showcase their mastery of Session Outcomes (SOs), culminating in the overall achievement of Course Outcomes (COs) upon the course's conclusion.

91CA207-C-B.1: Analyze the Basic Concept of DTP and working with Page maker and Photoshop. Various keyboard typing convention.

Approximate Hours

Item	Appx. Hrs.
Cl	12
LI	12
SW	1
SL	1
Total	26

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)
SO1.1 Discuss DTP. **SO1.2** Difference between word processor and publication software. **SO1.3** Elaborate	**LI1.1.** Basic Concepts of DTP. **LI1.2.** Working with Configuration of DTP Software's. **LI1.3.** Types of Printing. **LI1.4.** Formatting of Text. **LI1.5.** Example of Typography.	**Unit-1. Basic Concepts of DTP .** 1.1 Basic Concepts of DTP. 1.2 Difference between a word processor and Publication Software. 1.3 DTP Software's. 1.4 Offset Printing Technology. 1.5 Types of Printing. 1.6 Lithography, Flexography, 1.7 Gravure, Screen Printing, Offset	**1.** Study of Basic Concepts of DTP and Printing. 2. Study of Basic Printing Detail. 3. Study of Various Printing Configurati

Printing and its type. **SO1.4** Discuss Offset Printing in Details. **SO1.5** Define Typography.	**LI1.6.** Example of Lithography	Printing. 1.8 Terms used in Offset Printing: Bleed, CMYK. 1.9 Transparent Printouts - Bromide & Film. Halftone. 1.10 Formatting of a text: Typography, 1.11 Fonts, Point Size, Spacing, 1.12 Breaks, Measurements etc.	on.

SW-1 Suggested Sessional Work (SW):

a. Assignments:

1. Explain Offset printing Technology.
2. Discuss Types of Printing.
3. Explain Typography and working with text..

b. Other Activities (Specify):

Seminar and Presentation

91CA207-C-B.2: Analyze/Examine the basic Concept of Adobe Page maker – Page Layout, Palette, Columns and Gutters. Introduction to InDesign and interface.etc.

Approximate Hours

Item	Appx. Hrs.
Cl	12
LI	12
SW	1
SL	1
Total	26

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)

SO2.1 Discuss Adobe PageMaker. **SO2.2** Explain IDE of PageMaker in detail. **SO2.3** Discuss Tools and Control of PageMaker. **SO2.4** Explain Interest calculation **SO2.5** Discuss InDesign, Interfaces, Commands & options.	**LI2.1.** Basic Concepts/ Operation of PageMaker. **LI2.2.** Basic Concepts/ Operation of Tools. **LI2.3.** Explain Working with Various Page Layouts and Orientation. **LI2.4.** Explain InDesign. and working with Interfaces, Commands & options **LI2.5.** Inserting text & images in Indesign **LI2.6.** Page designing in InDesign.	**Unit-2 PageMaker and its basic IDE** 2.1 Introduction to Adobe PageMaker. 2.2 Page Maker Vs. Word Processing Software. 2.3 Introduction to Tools, Styles, Menus, 2.4 Templates, Alignments, Grids, Guides, Keyboard shortcuts, 2.5 Page Layouts- Margins, Page in Adobe PageMaker. 2.6 Orientations and Page Sizes 2.7 Text and Image Editing, Magazine & News Paper Page Layouts, Filters, Import and Export options, Auto flow and Story Editor. 2.8 Different Layout views, Layers, Tab setting, 2.9 Columns & Gutters, Use of Styles, Palettes & Colors. 2.10 Document Setup & Preferences. Master Pages. 2.11 Introduction	1. Study of different Types of Layouts . 2.Study of InDesign.

		to InDesign, Interfaces, Commands & options. 2.12 Inserting text & images, Page designing in InDesign.	

SW-2 Suggested Sessional Work (SW):

a. Assignments:

1. Explain PageMaker with IDE Diagram.
2. Explain working with Column and Gutter.
3. Explain InDesign in detail .

b. Other Activities(Specify):

Seminar and presentation

91CA207-C-B.3: Analyze working with PageMaker- Text Wrapping, Widows & Orphan lines, OLE, plugin, printing publication , etc

Approximate Hours

Item	Appx. Hrs.
Cl	12
LI	12
SW	1
SL	1
Total	26

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)

SO3.1. Discuss Pagemaker and its Importance in Market. **SO3.2.** Describe Document Setup.. **SO3.3.** Explain Orphan Lines and OLE **SO3.4.** Explain PageMaker on Managing and Printing Publications Tiles, multiple copies etc **SO3.5.** Describe Newspaper and Magazine designing in PageMaker.	**LI3.1.** Basic Concepts/ Operation of Document setup. **LI3.2.** Basic Concepts/ Operation of Fill & Stroke Option. **LI3.3.** Explain Working with Widows & Orphan lines. **LI3.4.** Explain OLE & Embedding, Plugins, Mathematic Equation, Table Editor and it use. **LI3.5.** Work on Managing and Printing Publications multiple copies etc. **LI3.6.** Construct reports in PageMaker.	**Unit-3: Working with Adobe PageMaker.** 3.1 Introduce Page and document setup, working with rulers, setting the unit measurement 3.2 Working with Bullets, Column Balancing, 3.3 Breaks Arrange, Fill & Stroke Options. 3.4 Working with Text Wrapping, Widows & Orphan lines, 3.5 Revert Command, Using Drop Caps and various style formats. 3.6 Editing of Graphics and Frames. Defining Styles 3.7 OLE & Embedding, Plugins, Mathematic Equation, 3.8 Table Editor and it use. Polygon Setting & Rounded Corners Master Pages. 3.9 Explain Headers & Footers, View Menu Options, Print Setup options. 3.10 Define Paste Multiple & Paste Special. 3.11 Describe Managing And Printing Publications Tiles, multiple copies etc. 3.12 Use of Page Maker in	1. Study Working with Various menus. 2. Study of Mathematic equation.

		Newspaper and Magazines.	

SW-3 Suggested Sessional Work (SW):

a. Assignments:

1. Explain Orphan Lines and Its Working with Suitable Diagram
2. Explain Header & Footer with Suitable Diagram
3. Explain Designing Newspaper in PageMaker with Suitable Diagram

b. Other Activities(Specify):

Seminar and presentation

91CA207-C-B.4: Analyze/Examine Inventory and Working with Inventory and Exceptional reports

Approximate Hours

Item	Appx. Hrs.
Cl	12
LI	12
SW	1
SL	1
Total	26

Session Outcomes	Laboratory	Classroom Instruction	Self-

(SOs)	Instruction (LI)	(CI)	Learning (SL)
SO4.1. Explain Basic of Adobe Photoshop **SO4.2.** Describe Various Photoshop Supporting Files **SO4.3.** Discuss Different Color Models. **SO4.4.** Explain Working With Files. **SO4.5.** Explain Layer and Filters.	LI4.1. Basic Concepts/ Operation of Photoshop. LI4.2. Basic Concepts/ Operation of Different File Format. LI4.3. Explain Working with Color Model/ Palette. LI4.4. Explain Working with Filter. Masking Tools & Effects, Using Channels. LI4.5. Introduce and work Changing Order of Layers, Renaming & Deleting Layers.	**Unit-4: Concept and Working in Adobe Photoshop.** 4.1 Basic of Adobe Photoshop. 4.2 Working on Graphic Files and Extensions- JPG, GIF, PNG, TIF, BMP, PSD, CDR, SVG, etc 4.3 Vector Image, Raster Images, Bitmap Graphics. 4.4 Introduction to Color Models: HSB, 4.5 RGB, CMYK, Bitmap, GrayScale, Duotone. Color Mode Conversion. vouchers. 4.6 Changing Image Size and Resolution, Creating New image. 4.7 Introduction PSD files, Menu Bar, Option Bar, Palette, Tools. 4.8 Opening-Saving-Closing a File, 4.9 History Option, Photoshop Layers & Palettes. 4.10 Duplicating Layers, Stock group & item	1. Study Photoshop and IDE 2.Study of Image File Format.

		analysis, stock category analysis, Ageing analysis. 4.11 Changing Order of Layers, Renaming & Deleting Layers and Filters. 4.12 Applying and Blending Filters, Filter Effects. Masking Tools & Effects, Using Channels.	

SW-4 Suggested Sessional Work (SW):

a. Assignments:

1. Discuss Photoshop and Terms related To Photo Editing.
2. Explain Color Models.
3. Explain Working on Layer and Filters.

b. Other Activities(Specify):

Seminar and Presentation

91CA207-C.5: **Analyze/ Prepare Typing and Keyboarding for professionals.**

Approximate Hours

Item	Appx. Hrs.
Cl	12
LI	12
SW	1
SL	1
Total	26

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)

SO5.1. Describe – Keyboard and its keys. **SO5.2.** Explain Various Shortcut Keys. **SO5.3.** Explain Hindi and English Typing Conventions. **SO4.4.** Explain Speed Boosters. **SO5.5.** Discuss Various Letters and Application	LI5.1. Explain Keys of Keyboard. LI5.2. Basic Concepts/ Operation Various Keys.. LI5.3.Explain Working with Hindi and English Typing. LI5.4. what is Speed Boosters? Explain Working with it. LI5.5. Discuss Business Letters and its Type. LI5.6.Word processing skills such as creating a document, using spellcheck, creating tables.	**Unit 5: Typing and Keyboarding for Professionals** **5.1.** Explain Basic of Keys of Keyboard. **5.2.** Describe Mastering the Keys, Numerical Keys, Symbol Keys, **5.3.** Shift Keys, Enter and Backspace Keys, Tab and Caps Lock Keys, Shortcut Keys **5.4.** Typing practices in Hindi and English. **5.5.** Master proper finger to key usage, Skill Drills, **5.6.** Sentence Repetition, Paragraph Practically. **5.7.** Explain and Work on Speed Boosters, Timed Tests. **5.8.** Discuss Business Letters and Emails. **5.9.** Email Etiquette, Resumes, Application Letters. **.10.** Word processing skills such as	1. Study Various Keys of keyboard. 2. Use of Hindi and English Typing. **3.** Use of E-Business Letters.

		creating a document, using spellcheck, creating tables. **5.11.** Common word processing related keyboard commands; **5.12.** Numeric Skills to deal with numbers and digits.	

SW-5 Suggested Sessional Work (SW):

a. Assignments:

1. Explain Keys of Keyboard in detail.
2. Explain Typing and Typing related Software.
3. Describe various operation on Word Processor. Create a Resume.

b. **Other Activities (Specify):**

Seminar and presentation

Brief of Hours suggested for the Course Outcome

Course Outcomes	Class Lecture (Cl)	Laboratory Instruction (LI)	Sessional Work (SW)	Self-Learning (Sl)	Total hour (Cl+SW+Sl)
91CA207-C.1: Analyze the Basic Concept of DTP and working with Page maker and Photoshop. Various keyboard typing convention	12	12	1	1	26
191CA207-C.2: Analyze/Examine the basic Concept of Adobe Page maker – Page Layout, Palette,	12	12	1	1	26

Columns and Gutters. Introduction to InDesign and interface.etc.					
91CA207-C.3: Analyze working with Pagemaker- Text Wrapping, Widows & Orphan lines, OLE, plugin, printing publication , etc	12	12	1	1	26
91CA207-C.4: Analyze/Examine the basic Concept and Working with Adobe Photoshop - supported file extensions, color models, palette and filter , etc	12	12	1	1	26
91CA207-C.5: Analyze/ Prepare Typing and Keyboarding for professionals.	12	12	1	1	26
Total Hours	60	60	5	5	130

Suggestion for End Semester Assessment

Suggested Specification Table(ForESA)

CO	Unit Titles	Marks Distribution			Total Marks
		R	U	A	
91CA207-C.1	Analyze the Basic Concept of DTP and working with Page maker and Photoshop. Various keyboard typing convention	02	03	03	08
91CA207-C.2	Analyze/Examine the basic Concept of Adobe Page maker – Page Layout, Palette, Columns and Gutters. Introduction to InDesign and interface.etc.	02	03	05	10

91CA207-C.3	Analyze working with Pagemaker- Text Wrapping, Widows & Orphan lines, OLE, plugin, printing publication , etc	02	03	07	12
91CA207-C.4	Analyze/Examine the basic Concept and Working with Adobe Photoshop - supported file extensions, color models, palette and filter , etc.	-	3	7	10
91CA207-C.5	Analyze/ Prepare Typing and Keyboarding for professionals.	-	05	05	10
Total		06	17	27	50

Legend: R: Remember, U: Understand, A: Apply

The end of semester assessment for Problem Solving and Programming will be held with written examination of 50 marks.

Suggested Learning Resources:

a. Books:

S. No.	Title	Author	Publisher	Edition &Year
1	" The Adobe Photoshop Book for Digital Photographers"	By **Scott Kelby**	New Riders, 2023.	-
2	" Adobe Photoshop CC Classroom in a Book "	by Andrew Faulkner, Conrad Chavez	Adobe Press	2017
3	" Adobe PageMaker 7.0"	by Adobe	Adobe Press	2002

Curriculum Development Team

1. Mr. Roopesh Jaiswal, Principal, Department of Computer Science.
2. Mr. Imran Ahmed Ansari, Teaching Associate, Department of Computer Science.
3. Mrs. Anamika Mishra, Teaching Associate, Department of Computer Science.
4. Mrs. Rashmi Gautam, Teaching Associate, Department of Computer Science.
5. Mrs. Aarti Singh Parihar, Teaching Associate, Department of Computer Science.
6. Ms. Arjita Singh,Teaching Associate, Department of Computer Science.

COs, POs and PSOs Mapping

Program: PGDCA Computer Science
Course Code: 91CA207-C-B
Course Title: Financial Accounting with Tally

Course Outcomes	Program Outcomes												Program Specific Outcome				
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct studies of difficult problems	Utilization of modern tools	Engineers and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-longlearning	Use fundamental knowledge of math, science, and engineering to comprehend, evaluate, and create computer Programmes in the fields of algorithms, multimedia, big data analytics, machine learning, artificial intelligence, and networking for the effective design of computer-based systems of various complexity	Utilize relevant methods and cutting-edge hardware and software engineering tools to develop and integrate computer systems and related technologies. This PSO2 also encourages lifelong learning for the advancement of technology and its use in multidisciplinary settings	Applying professional engineering solutions for societal improvement while taking into account the environmental context, being conscious of professional ethics, and being able to effectively communicate.	Learn and use the most recent Artificial Intelligence and Data Science technologies in the fields of engineering and computer science	Recognize and examine issues in real life, then offer creative software solutions with the help of AI and Data Science Technologies.
CO1: Analyze the Basic Concept of DTP and working with Page maker and Photoshop. Various keyboard typing convention	1	3	2	2	2	2	3	1	2	1	3	2	2	3	1	2	2
CO2: Analyze/Examine the basic Concept and Working with Adobe Photoshop - supported file extensions, color models, palette and filter , etc.	2	3	2	2	1	2	3	1	1	1	2	2	2	2	2	2	2
CO3 Analyze working with Pagemaker- Text Wrapping, Widows & Orphan lines, OLE, plugin, printing publication , etc	2	3	3	2	1	3	3	1	1	2	3	3	1	1	2	2	2
CO4: Analyze/Examine the basic Concept and Working with Adobe Photoshop - supported file extensions, color models, palette and filter , etc.	3	2	3	2	1	3	3	1	2	1	3	3	2	3	1	2	2
CO5: Analyze/ Prepare Typing and Keyboarding for professionals.	2	2	3	2	1	3	3	1	1	1	2	2	2	3	1	1	2

Legend: 1 – Low, 2 – Medium, 3 – High

Course Curriculum Map

POs & PSOs No.	COs No.& Titles	SOs No.	Classroom Instruction(CI)	Self-Learning(SL)
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO1: Analyze the Basic Concept of DTP and working with Page maker and Photoshop. Various keyboard typing convention	SO1.1 SO1.2 SO1.3 SO1.4 SO1.5	Unit-1 : Basic Concepts of DTP 1.1,1.2,1.3,1.4,1.5,1.6,1.7,1.8,1.9,1.10,1.11,1.12	As mentioned in page number above
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO2: Analyze/Examine the basic Concept and Working with Adobe Photoshop - supported file extensions, color models, palette and filter , etc.	SO2.1 SO2.2 SO2.3 SO2.4 SO2.5	Unit-2 : PageMaker and its basic IDE 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9, 2.10.,2.11,2.12	
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO3: Analyze working with PageMaker- Text Wrapping, Widows & Orphan lines, OLE, plugin, printing publication , etc	SO3.1 SO3.2 SO3.3 SO3.4 SO3.5	Unit-3 **:** Working with Adobe PageMaker. 3.1,3.2,3.3,3.4,3.5,3.6,3.7,3.8, 3.9.,3.10,3.11,3.12	
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO4: Analyze/Examine the basic Concept and Working with Adobe Photoshop - supported file extensions, color models, palette and filter , etc.	SO4.1 SO4.2 SO4.3 SO4.4 SO4.5	Unit-4: Working with Adobe PageMaker. 4.1,4.2,4.3,4.4,4.5,4.6,4.7,4.8,4.9,4.104.11,4.12	
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO5: Analyze/ Prepare Typing and Keyboarding for professionals.	SO5.1 SO5.2 SO5.3 SO5.4 SO5.5	Unit-5 : Typing and Keyboarding for Professionals & Future 5.1,5.2,5.3,5.4,5.5,5.6,5.7,5.8,5.9,5.10,5.11,5.12	

A K S University

Faculty of Computer Science

Department of Computer Science

Curriculum of PGDCA (Computer Science)

(Revised as on 01 August 2023)

Semester-II

Course Code: 91CA207-B

Course Title : FINANCIAL ACCOUNTING WITH TALLY

Pre-requisite: Basic Knowledge of Accounting

Rationale: Introduce students to the concept of Accounting and Basics of Tally Accounting software. To familiarize students with basic paradigms and Learn to create company, enter accounting voucher entries and create various type of Account books for the accounting purpose. Accounting elements used in Various Day to day life and Business Market. Students should be able to understand to prepare, print financial statements, etc. in Tally Accounting software and Future of Tally in Business Market.

Course Outcomes:

91CA207-B.1: Analyze the Basic Concept of Accounting, Accounting Software and working with Company and Various Configurations.
91CA207-B.2: Analyze/Examine the basic terminologies - Groups and Ledgers, Vouchers, Bank Reconciliation, Interest, Budget etc.
91CA207-B.3: Analyze various Accounting reports and Account Books.
91CA207-B.4: Analyze/Examine Inventory and Working with Inventory and Exceptional reports.
91CA207-B.5: Analyze/ Prepare and print financial statements, Tally Audit, Security control etc. in Tally Accounting software

Scheme of Studies:

Board of Study	Course Code	Course Title	Scheme of studies(Hours/Week)					Total Credits (C)
			CI	LI	SW	SL	Total Study Hours (CI+LI+SW+SL+T)	
Elective-3	91CA207-B	Financial Accounting with Tally	4	4	2	1	11	6

Legend: **CI:** Classroom Instruction (Includes different instructional strategies i.e. Lecture (L) and Tutorial (T) and others),
LI: Laboratory Instruction (Includes Practical performances in laboratory workshop,field or other locations using different instructional strategies)
SW: Sessional Work (includes assignment, seminar, mini project etc.),
SL: Self Learning,
C: Credits.

A K S University

Faculty of Computer Science

Department of Computer Science

Curriculum of PGDCA (Computer Science)

(Revised as on 01 August 2023)

Note: SW & SL has to be planned and performed under the continuous guidance and feedback teachers ensure outcome of Learning.

Scheme of Assessment:

Theory

Board of Study	Couse Code	Course Title	Scheme of Assessment (Marks)							
			Progressive Assessment (PRA)						End Semester Assessment (ESA)	Total Marks (PRA+ ESA)
			Class/Home Assignment 5 number 3 marks each (CA)	Class Test 2 (2 best out of 3) 10 marks each (CT)	Seminar one (SA)	Class Activity any one (CAT)	Class Attendance (AT)	Total Marks (CA+CT+SA+ CAT+AT)		
Elective-3	91CA207-B	Financial Accounting with Tally	15	20	5	5	5	50	50	100

Practical

Board of Study	Couse Code	Course Title	Scheme of Assessment (Marks)						
			Progressive Assessment (PRA)					End Semester Assessment (ESA)	Total Marks (PRA+ ESA)
			Class/Home Assignment 5 number 3 marks each (CA)	Viva1 (5)	Viva2 (5) (SA)	Class Attendance (AT)	Total Marks (CA+CT+SA+ CAT+AT)		
Elective-3	91CA207-B	Financial Accounting with Tally	35	5	5	5	50	50	100

Course-Curriculum Detailing:

This course syllabus illustrates the expected learning achievements, both at the course and session levels, which students are anticipated to accomplish through various modes of instruction including Classroom Instruction (CI), Laboratory Instruction (LI), Sessional Work (SW), and Self-Learning (SL). As the course progresses, students should showcase their mastery of Session Outcomes (SOs), culminating in the overall achievement of Course Outcomes (COs) upon the course's conclusion.

A K S University

Faculty of Computer Science

Department of Computer Science

Curriculum of PGDCA (Computer Science)

(Revised as on 01 August 2023)

91CA207-B.1: Analyze the Basic Concept of Accounting, Accounting Software and working with Company and Various Configurations

Approximate Hours

Item	Appx. Hrs.
Cl	12
LI	12
SW	2
SL	1
Total	27

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)
SO1.1 Discuss Accounting and Accounting Software. **SO1.2** Analyze Cost Centre, Inventory. **SO1.3** Elaborate Tally Configuration & INI setup **SO1.4** Discuss Basic Company Details. **SO1.5** Define Company Features, and Configuration	**LI1.1.** Basic Concepts of Accounting and Terminologies. **LI1.2.** Working with Configuration & INI setup **LI1.3.** Working with Company Details - Create/Alter/ Select/Load/Close a Company. **LI1.4.** Mouse/ Keyboard Conventions & Key **LI1.5.** Company Features, and Configuration. **LI1.6.** Create Chart of Accounts	**Unit-1. Basic Concepts of Accounting and Tally Software.** 1.1 Basic Concepts of Accounting. 1.2 Financial Statements and Analysis. 1.3 Cost Centre and Basic concepts of Inventory. 1.4 Tally Configuration & INI setup. 1.5 Single & Multiple User. 1.6 Tally Screen Components Concept. 1.7 Mouse/Keyboard Conventions & Key Combinations 1.8 Switching between screen areas,	**1.** Study of Basic Concepts of Accounting and Accounting Terminologies. 2. Study of Basic Company Detail. 3. Study of Various Configuration.

		Quitting Tally. 1.9 Maintaining Company Data. 1.10 Basic Company Details - Create/Alter/ Select/Load/Close a Company 1.11 Chart of Accounts. 1.12 Company Features, and Configuration.	

SW-1 Suggested Sessional Work (SW):

a. Assignments:

1. Explain Tally Configuration & INI setup.
2. Discuss Tally Screen Components Concept with suitable Diagram.
3. Explain working with Company Details - Create/Alter/ Select/Load/Close a Company.

b. Other Activities (Specify):

Seminar and Presentation

91CA207-B.2: Analyze/Examine the basic terminologies - Groups and Ledgers, Vouchers, Bank Reconciliation, Interest, Budget etc.

Approximate Hours

Item	Appx. Hrs.
Cl	15
LI	12
SW	2
SL	1
Total	30

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)

SO2.1 Discuss Group and Ledger in Tally. **SO2.2** Explain Voucher and Types of Voucher **SO2.3** Discuss Bank Reconciliation statement. **SO2.4** Explain Interest calculation **SO2.5** Discuss Budget and Scenario	**LI2.1.** Basic Concepts/ Operation of Group. **LI2.2.** Basic Concepts/ Operation of Ledger. **LI2.3.** Explain Working with Various Accounting Voucher. **LI2.4.** Explain Budget and working with Budget. **LI2.5.** Work on Transaction using Bill wise detail. **LI2.6.** Construct Scenario.	**Unit-2 Vouchers, Transactions and Budget-Scenarios** 2.1 Introduction and Working on Group. 2.2 Introduction and Working on Ledger. 2.3 Introduction and Working on Accounting voucher. 2.4 Various Accounting Voucher transactions. 2.5 Account Invoice transactions 2.6 Introduction and working on Excise Invoice, Export Invoice. 2.7 Introduction and working on Transactions using Bill-wise details. 2.8 Explain Bank Reconciliation. 2.9 Introduction and working on Interest calculations- using simple & advance parameters, outstanding balances & on invoices and adjustment of	1. Study of different Types of Voucher. 2. Study applications of group and ledger. 3.Study of Budget and Scenarios

		interest. 2.10 What is Voucher class- Creation, Invoice entry in a class situation 2.11 Explain Budgets- Budgets for groups, ledgers & cost center. 2.12 Display Budgets & variances 2.13 Defining credit limit & credit period 2.14 What is scenario? Create, Alter & Delete a scenario. 2.15 Introduce and Work on- Journal Transactions, payment voucher, Godown summary	

SW-2 Suggested Sessional Work (SW):

a. Assignments:

1. Explain Group in Detail with suitable Diagram.
2. Explain working with transaction using Bill wise Detail.
3. Explain Budget and Scenarios.

b. Other Activities(Specify):

Seminar and presentation

91CA207-B.3: Analyze various Accounting reports and Account Books.

Approximate Hours

Item	Appx. Hrs.
Cl	11
LI	12
SW	2
SL	1
Total	26

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)
SO3.1. Discuss Report and its Importance in Accounting. **SO3.2.** Describe Types and Reports in tally. **SO3.3.** Explain Account books. **SO3.4.** Explain Concept and working Of Exception reports **SO3.5.** Describe Outstanding and Interest.	**LI3.1.** Basic Concepts/ Operation of Report. **LI3.2.** Basic Concepts/ Operation of Account books. **LI3.3.** Explain Working with Various Ledger Group Summary & voucher. **LI3.4.** Explain Cost center & category. **LI3.5.** Work on Transaction using Bill wise detail. **LI3.6.** Construct Exception reports.	**Unit-3: Report in tally.** 3.1 Introduce Report and Work on Various report. 3.2 Reports like balance sheet, Profit & Loss account, Ratio analysis, Trial Balance. 3.3 Accounts books like cash/bank book 3.4 All Ledgers Group summary & vouchers. 3.5 Explain Sales, purchase & journal registers and Working on it. 3.6 Cost center & category summary. 3.7 Description of Cost centre breakup ledger & group break. 3.8 Outstanding receivables & payables. 3.9 Statistics, Cash Fund flow, Day book. 3.10 Introduce List of Accounts. 3.11 Exception reports: Reversing journals, optional vouchers, and postdated vouchers.	1. Study Report and its Type 2. Study of Cost Center & Cost category. 3. Study of Outstanding and Interest.

SW-3 Suggested Sessional Work (SW):

a. Assignments:

1. Explain MICR and Its Working with Suitable Diagram
2. Explain OMR and Its Working with Suitable Diagram
3. Explain Digital Camera and Its Working with Suitable Diagram

b. Other Activities(Specify):

Seminar and presentation

91CA207-B.4: Analyze/Examine Inventory and Working with Inventory and Exceptional reports

Approximate Hours

A K S University

Faculty of Computer Science

Department of Computer Science

Curriculum of PGDCA (Computer Science)

(Revised as on 01 August 2023)

Item	Appx. Hrs.
Cl	10
LI	12
SW	2
SL	1
Total	25

Session Outcomes (SOs)	**Laboratory Instruction (LI)**	**Classroom Instruction (CI)**	**Self-Learning (SL)**
SO4.1. Explain Basic of Inventory **SO4.2.** Describe Various Inventory Vouchers **SO4.3.** Discuss Different Inventory related reports. **SO4.4.** Explain Godown and Stock Query **SO4.5.** Explain inventory related Exception reports	**LI4.1.** Basic Concepts/ Operation of Inventory. **LI4.2.** Explain Working with Various Inventory voucher. **LI4.3.** what is Godown? Explain Working with Godown **LI4.4.** Work on Stock Transaction using Godown- Stock Transfer, Physical Stock verification, etc. **LI4.5.** Introduce and work On Order processing: Purchase and Sales order Processing. **LI4.6.** Construct Inventory related Exception reports	**Unit-4: Inventory in tally.** 4.1 Basic of Inventory. 4.2 Introduce And Working on Stock- Create, Alter & Display Stock Groups and Stock Items 4.3 Working on All inventory voucher types and transactions 4.4 Inventory details in accounting vouchers. 4.5 Reports like Stock summary. 4.6 Introduce and Working on Inventory books- Stock item, Group summary, Stock transfers, Physical stock register, Movement analysis. 4.7 Stock group & item analysis, stock category analysis, Ageing	1. Study Inventory Related Terms 2. Study of Various Inventory Vouchers. 3. Study Of Godown and Stock 4. Study Of Various Order processing and Exception Reports.

		analysis. 4.8 Statement of inventory related to Godown, Categories, stock query, and Reorder status. 4.9 Purchase & Sales order summary, Purchase & Sales bill pending. 4.10 Explain Exception reports like negative stock & ledger, overdue receivables & payables, memorandum vouchers, optional vouchers, post-dated vouchers, reversing journal.	

SW-4 Suggested Sessional Work (SW):

a. Assignments:
1. Discuss Inventory and Terms related To Inventory.
2. Explain Godown and Working on Godown.
3. Explain Some Inventory Vouchers.

b. Other Activities(Specify):
Seminar and Presentation

91CA207-B.5: **Analyze/ Prepare and print financial statements, Tally Audit, Security control etc. in Tally Accounting software.**

Approximate Hours

Item	Appx. Hrs.
Cl	11
LI	12
SW	2

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Faculty of Computer Science

Department of Computer Science

Curriculum of PGDCA (Computer Science)

(Revised as on 01 August 2023)

SL	1
Total	26

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)
SO5.1. Describe – Cheque printing and various Format, Options. **SO5.2.** Explain Group Company and Splitting Company. **SO5.3.** Explain Security Controls. **SO4.4.** Explain Database Connectivity in Tally. **SO5.5.** Discuss Tally Audit.	LI5.1. Explain Cheque Printing with Various Print Option. LI5.2. Basic Concepts/ Operation of Multi-Account Printing. LI5.3. Explain Working with Splitting Company data LI5.4. what is Group Company? Explain Working Procedure for Group company LI5.5. Work on Security Control. LI5.6. Introduce and work On Tally vault Password.	**Unit 5: Print financial statements and Security Controls in Tally.** 5.1 Explain Cheque Printing. 5.2 Describe Common printing options, Different printing format. 5.3 Introduce and Work on Multi-Account printing. 5.4 Dynamic- Report and specific option in tally. 5.5 Explain and Work on Creating Group Company. 5.6 Discuss Security and Various Security control & defining different security levels 5.7 Work On Use of Tally vault. 5.8 Use of Tally Audit. 5.9 Back-up & Restore, Splitting company data. 5.10 Export & import of Data, ODBC compliance in tally.	1. Study Cheque Printing and various Printing option. 2. Use knowledge of Creating Group Company and Splitting company data. **3.** Use of E-mail, Internet publishing, Upload.

		5.11 use of E-mail, Internet publishing, 5.12 Upload, web browser & online help, Re-write data.	

SW-5 Suggested Sessional Work (SW):

a. Assignments:

1. Explain Cheque printing in detail.
2. Explain Security Control and Tally vault password.
3. Describe various operation like Export & import of Data, E-mail, Internet publishing, Upload.

b. **Other Activities (Specify):**

Seminar and presentation

Brief of Hours suggested for the Course Outcome

Course Outcomes	Class Lecture (Cl)	Laboratory Instruction (LI)	Sessional Work (SW)	Self-Learning (Sl)	Total hour (Cl+SW+Sl)
91CA207-B.1: Analyze the Basic Concept of Accounting, Accounting Software and working with Company and Various Configurations	12	12	2	1	27
91CA207-B.2: Analyze/ Examine the basic terminologies - Groups and Ledgers, Vouchers, Bank Reconciliation, Interest, Budget etc.	15	12	2	1	30
91CA207-B.3: Analyze various Accounting reports and Account Books	11	12	2	1	26
91CA207-B.4: Analyze/Examine Inventory and Working with	10	12	2	1	25

Inventory and Exceptional reports.					
91CA207-B.5: Analyze/ Prepare and print financial statements, Tally Audit, Security control etc. in Tally Accounting software.	12	12	2	1	26
Total Hours	60	60	10	5	135

Suggestion for End Semester Assessment

Suggested Specification Table(ForESA)

CO	Unit Titles	Marks Distribution			Total Marks
		R	U	A	
91CA207-B.1	Analyze the Basic Concept of Accounting, Accounting Software and working with Company and Various Configurations	02	03	03	08
91CA207-B.2	Analyze/ Examine the basic terminologies - Groups and Ledgers, Vouchers, Bank Reconciliation, Interest, Budget etc.	02	03	05	10
91CA207-B.3	Analyze various Accounting reports and Account Books.	02	03	07	12
91CA207-B.4	Analyze/Examine Inventory and Working with Inventory and Exceptional reports.	-	3	7	10
91CA207-B.5	Analyze/ Prepare and print financial statements, Tally Audit, Security control etc. in Tally Accounting software.	-	05	05	10
Total		06	17	27	50

Legend: R: Remember, U: Understand, A: Apply

The end of semester assessment for Problem Solving and Programming will be held with written examination of 50 marks.

Suggested Learning Resources:

a. Books:

S. No.	Title	Author	Publisher	Edition &Year
1	" Tally Essential"	by Tally Education Pvt. Ltd.	Sahaj Enterprises	-
2	" Tally Prime With GST Book"	by Gaurav Agrawal	Digital Muneem Ji	Paperback – 1 January 2021
3	"Mastering in tally prime"	by Rakesh sangwan	ASCENT PUBLICATION	Paperback – 2021

Curriculum Development Team

1. Mr. Roopesh Jaiswal, Principal, Department of Computer Science.
2. Mr. Imran Ahmed Ansari, Teaching Associate, Department of Computer Science.
3. Mrs. Anamika Mishra, Teaching Associate, Department of Computer Science.
4. Mrs. Rashmi Gautam, Teaching Associate, Department of Computer Science.
5. Mrs. Aarti Singh Parihar, Teaching Associate, Department of Computer Science.
6. Ms. Arjita Singh,Teaching Associate, Department of Computer Science.

COs, POs and PSOs Mapping

Program: PGDCA Computer Science
Course Code: 91CA207-B
Course Title: Financial Accounting with Tally

Course Outcomes	Program Outcomes												Program Specific Outcome				
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct studies of difficult problems	Utilization of modern tools	Engineers and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-longlearning	Use fundamental knowledge of math, science, and engineering to comprehend, evaluate, and create computer Programmes in the fields of algorithms, multimedia, big data analytics, machine learning, artificial intelligence, and networking for the effective design of computer-based systems of various complexity	Utilize relevant methods and cutting-edge hardware and software engineering tools to develop and integrate computer systems and related technologies. This PSO2 also encourages lifelong learning for the advancement of technology and its use in multidisciplinary settings	Applying professional engineering solutions for societal improvement while taking into account the environmental context, being conscious of professional ethics, and being able to effectively communicate.	Learn and use the most recent Artificial Intelligence and Data Science technologies in the fields of engineering and computer science	Recognize and examine issues in real life, then offer creative software solutions with the help of AI and Data Science Technologies.
CO1: Analyze the Basic Concept of Accounting, Accounting Software and working with Company and Various Configurations.	1	3	2	2	2	2	3	1	2	1	3	2	2	3	1	2	2
CO2: Analyze/ Examine the basic terminologies - Groups and Ledgers, Vouchers, Bank Reconciliation, Interest, Budget etc.	2	3	2	2	1	2	3	1	1	1	2	2	2	2	2	2	2
CO3 Analyze various Accounting reports and Account Books.	2	3	3	2	1	3	3	1	1	2	3	3	1	1	2	2	2
CO4: Analyze/Examine Inventory and Working with Inventory and Exceptional reports.	3	2	3	2	1	3	3	1	2	1	3	3	2	3	1	2	2
CO5: Analyze/ Prepare and print financial statements, Tally Audit, Security control etc. in Tally Accounting software.	2	2	3	2	1	3	3	1	1	1	2	2	2	3	1	1	2

Legend: 1 – Low, 2 – Medium, 3 – High

Course Curriculum Map

POs & PSOs No.	COs No.& Titles	SOs No.	Classroom Instruction(CI)	Self-Learning(SL)
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO1: Analyze the Basic Concept of Accounting, Accounting Software and working with Company and Various Configurations.	SO1.1 SO1.2 SO1.3 SO1.4 SO1.5	Unit-1 : Introduction to Multimedia 1.1,1.2,1.3,1.4,1.5,1.6,1.7,1.8,1.9,1.10,1.11,1.12,	As mentioned in page number _ to _
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO2: Analyze/ Examine the basic terminologies - Groups and Ledgers, Vouchers, Bank Reconciliation, Interest, Budget etc.	SO2.1 SO2.2 SO2.3 SO2.4 SO2.5	Unit-2 : Sound in Multimedia 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9, 2.10, 2.11, 2.12, 2.13, 2.14, 2.15,	
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO3: Analyze various Accounting reports and Account Books.	SO3.1 SO3.2 SO3.3 SO3.4 SO3.5	Unit-3 **:** Graphics in Multimedia 3.1,3.2,3.3,3.4,3.5,3.6,3.7,3.8, 3.9, 3.10, 3.11	
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO4: Analyze/Examine Inventory and Working with Inventory and Exceptional reports.	SO4.1 SO4.2 SO4.3 SO4.4 SO4.5	Unit-4: Video and Animation 4.1,4.2,4.3,4.4,4.5,4.6,4.7,4.8,4.9,4.10,	
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO5: Analyze/ Prepare and print financial statements, Tally Audit, Security control etc. in Tally Accounting software.	SO5.1 SO5.2 SO5.3 SO5.4 SO5.5	Unit-5 : Applications of Multimedia & Future 5.1,5.2,5.3,5.4,5.5,5.6,5.7,5.8, 5.9, 5.10, 5.11	

A K S University

Faculty of Computer Application & Information Technology and Science

Department of Computer Application & Information Technology

Curriculum of PGDCA (Post Graduate Diploma in Computer Application)

(Revised as on 01 August 2023)

Semester-II

Course Code: 91CA208-A

Course Title: Multimedia with Corel Draw ,Premier And Sound Forge

Pre- requisite: Knowledge about Element of Multimedia

Rationale: The study of this subject will develop understanding in students to create vector graphics, work with graphics of Multimedia. By this subject student can learn a variety of valuable skills by using Corel Draw for multimedia projects. By using Corel Draw for multimedia projects, students can gain a comprehensive set of design skills, technical knowledge, and practical experience that are valuable for careers in graphic design, multimedia production, advertising, marketing, and other related fields.

Course Outcomes:

91CA208-A .1.Understanding the Introduction and Application of Corel Draw.

91CA208-A .2.Working with the help of Tools in Corel Draw .

91CA208-A .3.Working with Grid and Ruler in Corel Draw.

91CA208-A .4.Basic introduction and working with Adobe premier.

91CA208-A .5.Basic introduction and working with Sound Forge.

Scheme of Studies:

Board of Study	Course Code	Course Title	Scheme of studies(Hours/Week)					Total Credits (C)
			Cl	LI	SW	SL	Total Study Hours (CI+LI+SW+SL)	
Elective-4	91CA208-A	Multimedia with Corel Draw, Adobe premiere and Sound Forge	4	4	1	1	10	6

Legend: CI: Classroom Instruction (Includes different instructional strategies i.e. Lecture (L) and Tutorial (T) and others),

LI: Laboratory Instruction (Includes Practical performances in laboratory workshop,field or other locations using different instructional strategies)

SW: Sessional Work (includes assignment, seminar, mini project etc.),

SL: Self-Learning,

C: Credits.

Note: SW & SL has to be planned and performed under the continuous guidance and feedback ofteacher to ensure outcome of Learning.

Scheme of Assessment:

Theory

Board of Study	Course	Course Title	Scheme of Assessment (Marks)							
			Progressive Assessment (PRA)						End Semester Assessment (ESA)	Total Marks (PRA+ESA)
			Class/Home Assignment number 3 markseach (CA)	Class Test2 (2 best out of 3) 10 markseach	Seminar one (SA)	Class Activity any one (CAT)	Class Attendance (AT)	Total Marks (CA+CT+SA+CAT +AT)		
Elective-4	91CA208-A	Multimedia with Corel Draw, Adobe premiere and Sound Forge	15	20	5	5	5	50	50	100

Practical

Board of Study	Couse Code	Course Title	Scheme of Assessment (Marks)						
			Progressive Assessment (PRA)					End Semester Assessment (ESA)	Total Marks (PRA+ ESA)
			Class/Home Assignment 5 number 3 marks each (CA)	Viva1 (5)	Viva2 (5) (SA)	Class Attendance (AT)	Total Marks (CA+CT+SA+CAT +AT)		
Elective-4	91CA208-A	Multimedia with Corel Draw, Adobe premiere and Sound Forge	35	5	5	5	50	50	100

Curriculum Detailing:

This course syllabus illustrates the expected learning achievements, both at the course and session levels, which students are anticipated to accomplish through various modes of instruction including Classroom Instruction (CI), Laboratory Instruction (LI), Sessional Work (SW), and Self-Learning (SL). As the course progresses, students should showcase their mastery of Session Outcomes (SOs), culminating in the overall achievement of Course Outcomes (COs) upon the course's conclusion.

91CA208-A.1 Understanding the Introduction and Application of Corel Draw.

Approximate Hours

Item	Appx. Hrs.
Cl	7
LI	12

SW	1
SL	1
Total	17

Session Outcomes (SOs)	Laboratory Instruction (LI)	Class room Instruction (CI)	Self-Learning (SL)
SO1.1 Discribe IDE of Corel Draw **SO1.2** Discuss Benefits and limitations of Corel Draw. **SO1.3** Discibe various size and format of panel.	**LI1.1.** Explain IDE of Corel Draw. **LI1.2.** Explain Layout properties in detail. **LI1.3.** Use of various File Layouts **LI1.4.** Use of various objects LI1.5. Use of various color profiles **LI1.6.** Use of tool panels	**Unit-1.0 Corel Draw** 1.1 Introduction to CorelDraw 1.2 Usage and Advantages 1.3 Introduction to User Interface 1.4 Introduction to tool panel and workspaces 1.5 Introduction to various size and formats of panels and layouts 1.6 File layouts and layout properties 1.7 Objects and using color profiles	1. Explain the importance of Corel Draw. 2. Explain Corel Draw screen Component.

SW-1 Suggested Sessional Work (SW):

Assignments:

- Explain the Advantages and Disadvantages of Corel Draw.
- Explain file layout and Layout properties in Corel Draw.

91CA208-A.2.Working with the help tools in Corel Draw.

Approximate Hours

Item	Appx Hrs
Cl	11

LI	12
SW	1
SL	1
Total	25

Session Outcomes (SOs)	Laboratory Instruction (LI)	Class room Instruction (CI)	Self-Learning (SL)
SO2.1 working of Tools **SO2.2** Discuss various types of tools and property **SO2.3** Discuss various types of Effect in Corel Draw	**LI2.1.** Create the logo using Rectangle Tools **LI2.2.** Create the Different types of Cards using shape, **LI2.3.** Create the Different types of Cards using Ellipse, **LI2.4.** Create the Different types of Cards using Rectangle tools **LI2.5.** Explain various type of Effect in CorelDraw **LI2.6.** Show various text effects	**Unit-2.0 Working with Tools in Corel Draw** 2.1. Text tools and 2.2. text properties 2.3. Creating Vector graphics by using editing tools 2.4. Importing Images and graphics in Corel draw layout 2.5. Creating shapes and 2.6. editing shapes 2.7. Drawing curves and 2.8. editing curves 2.9. Creating special text effects 2.10. Creating special object effects 2.11. Using color effects	1. What is the use of blend tool in CorelDraw? 2. Explain Text Effect and text Property in Corel Draw.

SW-1 Suggested Sessional Work (SW):

Assignments:

- Explain Drawing Curve and Editing Curve in Corel Draw.
- How to Export and Import Graphics in Corel Draw.

91CA208-A.3 Working with Grid and ruler in Corel Draw.

Approximate Hours

Item	Appx. Hrs.
Cl	10
LI	12
SW	1
SL	1
Total	24

Session Outcomes (SOs)	Laboratory Instruction (LI)	Class room Instruction (CI)	Self-Learning (SL)
SO3.1 Discuss Masking Effect with text and object. **SO3.2** Use Page layout in Corel Draw.	LI3.1. Example that shows use of ruler in Corel Draw. LI3.2. Example that shows use of grid in Corel Draw. LI3.3. LI3.2. define Masking Effect with text. LI3.4. LI3.3.Define page Arrangement LI3.5. Example that shows use of tracing images in Corel Draw. LI3.6. Example that shows use of tracing graphics in Corel Draw.	**Unit-3.0 working with Grid , Masking Effect, Page layout** 3.1. Using grid and 3.2. Using rulers 3.3. Tracing images and Tracing graphics 3.4. working with borders and page arrangements 3.5. Using Masking effects with Text 3.6. Using Masking effects with objects.	1. Define working of Grid in corel Draw . 2. Explain Masking Effect in Corel Draw.

SW-1 Suggested Sessional Work (SW):

Assignments:

- What is Grid in Corel Draw.
- How to trace image & Graphics in Corel Draw.

91CA208-A.4 Basic Introduction and working with Adobe premier.

Approximate Hours

Item	Appx. Hrs.
Cl	21
LI	12

SW	1
SL	1
Total	35

Session Outcomes (SOs)	Laboratory Instruction (LI)	Class room Instruction (CI)	Self-Learning (SL)
SO4.1. Discuss about Adobe premiere and Toolbar Description. **SO4.2.**Describe use of Adobe premiere. **SO4.3.**Describe working of various types of tools in Adobe premiere.	**LI4.1.** LI4.1 Define IDE of Adobe Premier. **LI4.2.** LI4.2Define working of Selection, Edit **LI4.3.** &Track tool. **LI4.4.** LI4.3.How to import and Export file into premier. **LI4.5.** LI4.4 Describe working of Tansition panel & Effect panel. **LI4.6.** Describe working of . Slide Tool, Pen Tool	**Unit-4.0: Adobe Premier And Toolbar Description** 4.1 Introduction of Adobe Premier 4.2. Area of Use 4.3. Setting up new Project 4.4. Workspace: Project Video Display 4.5. Selected Clip Display 4.6. project panel Project Timeline Toolbar 4.7. Toolbar description: Selection Tool 4.8. Track Select Forward Tool 4.9. Track Select Backward Tool 4.10. Ripple Edit Tool 4.11. Rolling Edit Tool 4.12. Rate Stretch Tool, Razor tool, Slip tool, 4.13. Slide Tool, Pen Tool 4.14. Hand Tool, Zoom Tool 4.15. Importing files into Premier 4.16. Sequence, Titles 4.17. Video Motion, Video Opacity 4.18. Transition Panel, Effect panel 4.19. Color Correction 4.20. Adjusting Video Speed 4.21. Saving Project, Exporting Video	1 How to setup a new project in adobe premiere. 2 Explain project time line toolbar In Detail. 3. Explain importing files into premiere. 4. Explain importing and Exporting Video

SW-1 Suggested Sessional Work (SW):

Assignments:

- Explain IDE of Adobe premiere.
- Explain project window and timeline with Diagram.

91CA208-A.5 Basic Introduction and working with Sound Forge

Approximate Hours

Item	Appx. Hrs.
Cl	15
LI	12
SW	1
SL	1
Total	29

Session Outcomes (SOs)	Laboratory Instruction (LI)	Class room Instruction (CI)	Self-Learning (SL)
SO5.1. Discuss About Sound Editing Software of Sound forge. **SO5.2.** Discuss basic Editing in Sound Forge.	**LI5.1.** Define IDE of Sound forge in Detail. **LI5.2.** Define various type of Editing in Sound Forge. **LI5.3.** How to create Normalization in recorded Audio **LI5.4.** How to do sound editing **LI5.5.** How to use markers. **LI5.6.** How to reduce noise.	**Unit-5.0: Sound Forge** 5.1. Introduction of Sound Forge 5.2. Interface 5.3. Editing Toolbar 5.4. Transport toolbar 5.5. Opening new file 5.6. playing a file 5.7. playing file from specific point 5.8. playing a selection 5.9. Basic Sound Editing 5.10. Copying, Pasting 5.11. Cutting, Deleting 5.12. Cropping, Mixing 5.13. Recording Audio Normalizing 5.14. Using Markers 5.15. Noise Reduction	1. How to record audio in Sound forge. 2. Explain noise reduction in sound Forge. 3. How to using Markers in sound forge

SW-1 Suggested Sessional Work (SW):

Assignments:

- Give Introduction to Sound Forge.
- Explain Editing and transport toolbar in Sound Forge.

Brief of Hours suggested for the Course Outcome

Course Outcomes	Class Lecture (Cl)	Laboratory Instruction (LI)	Sessional Work (SW)	Self-Learning (Sl)	Total hour (Cl+SW+Sl)
91CA208-A .1. Understanding the Introduction and Application of Corel Draw.	07	12	01	01	21
91CA208-A.2 Working with the help tools in Corel Draw.	11	12	01	01	25
91CA208-A .3. Working with Grid and Ruler in Corel Draw.	06	12	01	01	20
91CA208-A.4. Basic introduction and working with Adobe premiere.	21	12	01	01	35
91CA208-A.5. Basic Introduction and working with Sound Forge.	15	12	01	01	29
Total Hours	60	60	05	05	130

Suggestion for End Semester Assessment

Suggested Specification Table (For ESA)

CO	Unit Titles	Marks Distribution			Total Marks
		R	U	A	
91CA208-A -1	Introduction of Corel Draw	03	02	03	08
91CA208-A -2	Working with Tools in Corel Draw	03	01	05	09
91CA208-A -3	Working with Grid, Masking Effect, Page Layout	03	07	02	12
91CA208-	Adobe Premier and Toolbar Description	03	05	05	13

A -4					
91CA208-A -5	Sound Forge	03	02	03	08
Total		15	17	18	50

Legend: R: Remember, U: Understand, A: Apply

The end of semester assessment for Project Management will be held with writtenexamination of 50 marks

Note. Detailed Assessment rubric need to be prepared by the course wise teachers for above tasks.

Teachers can also design different tasks as per requirement, for end semester assessment.

Suggested Learning Resources:

A. Books:

S. No.	Title	Author	Publisher	Edition & Year
1	Corel Draw X6 Official Guide	Gray David Bouton	McGraw Hill LLC	24 july 2012
2	Adobe Premier	Olivier Abou	Micro Application	2009
3	Sound Forge	Jeffrey P.Fisher	CMP Books	2004

Curriculum Development Team

1. Mr. Roopesh Jaisawal, Principal, Department of Computer Science.
2. Ms. Arjita Singh, Assistant Professor, Department of Computer Science.
3. Mrs. Anamika Mishra, Assistant Professor, Department of Computer Science.
4. Mrs. Rashmi Gautam, Assistant Professor, Department of Computer Science.
5. Mrs. Aarti singh Parihar, Assistant Professor, Department of Computer Science.
6. Mr. Imran Ahamad Ansari, Assistant Professor, Department of Computer Science.

CO, PO and PSO Mapping

Program: PGDCA
Course Code: 91CA208-A
Course Title: Multimedia with Corel Draw, premier and Sound Forge

Course Outcomes	Program Outcomes												Program Specific Outcomes			
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
	Engineering knowledge	Problem Analysis	Design/development of solutions	Conduct studies of difficult problems	Utilization of modern tools	Engineers and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning				
CO1. Understanding the Introduction and Application of Corel Draw.	2	2	3	3	2	1	1	1	1	1	1	3	2	2	3	3
CO2. Working with the help of tools in Corel Draw.	2	3	2	3	2	2	1	1	1	1	1	3	2	3	2	3
CO3. Working with Grid and Ruler in Corel Draw.	2	2	2	3	2	2	1	1	1	1	1	3	2	2	2	3
CO4. Basic Introduction and working with Adobe Premier	2	2	3	2	2	2	1	1	1	1	1	3	2	2	3	2
CO5. Basic Introduction and working with Sound Forge.	2	2	3	2	2	2	1	1	1	1	1	3	2	2	3	2

Course Curriculum Map

POs & PSOs No.	COs No.& Titles	SOs No.	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)
PO: 1,2,3,4,5,6,7,8,9, 10,11,12 PSO:1,2,3,4	CO1. Understanding the Introduction and Application of Corel Draw.	SO1.1 SO1.2 SO1.3	LI1.1,LI1.2,LI1.3,LI1.4,LI1.5,LI1.6	**Unit-1.0 Corel Draw** 1.1,1.2,1.3,1.4,1.5,1.6,1.7	As Mentioned in Page no. above
PO: 1,2,3,4,5,6,7,8,9, 10,11,12 PSO:1,2,3,4	CO2.Working with the help of tools in Corel Draw	SO2.1 SO2.2 SO2.3	LI2.1,LI2.2,LI2.3,LI2.4,LI2.5,LI2.6	**Unit-2.0 Working with tools in Corel Draw** 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7,2.8,2.9,2.10,2.11	
PO: 1,2,3,4,5,6,7,8,9, 10,11,12 PSO:1,2,3,4	CO3. Working with Grid and Ruler in Corel Draw.	SO3.1 SO3.2	LI3.1,LI3.2,LI3.3,LI3.4,LI3.5,LI3.6	**Unit-3.0 Working with Grid ,Masking Effect ,page layout** 3.1,3.2,3.3,3.4,3.5,3.6	
PO: 1,2,3,4,5,6,7,8,9, 10,11,12 PSO:1,2,3,4	CO4. Basic Introduction and working with Adobe premiere.	SO4.1 SO4.2 SO4.3	LI4.1,LI4.2,LI4.3 LI4.4,LI4.5,LI4.6	**Unit-4: Adobe premiere and Toolbar Description** 4.1,4.2,4.3,4.4,4.5,4.6,4.7,4.8,4.9,4.10,4.11, 4.12.4.13,4.15,4.16,4.17,4.18,4.19,4.20,4.21	
PO: 1,2,3,4,5,6,7,8,9, 10,11,12 PSO:1,2,3,4	CO5. Basic Introduction and working with Sound Forge.	SO5.1 SO5.2	LI5.1,LI5.2,LI5.3,LI5.4,LI5.5,LI5.6	**Unit-5: Sound Forge** 5.1,5.2,5.3,5.4,5.5,5.6,5.7,5.8,5.9,5.10,5.11 5.12,5.13,5.14,5.15	

A K S University

Faculty of Computer Application & Information Technology and Science

Department of Computer Application & Information Technology

Curriculum of PGDCA (Post Graduate Diploma in Computer Application)

(Revised as on 01 August 2023)

Semester-II

Course Code: 91CA208-C

Course Title : Programming with ASP.net Aptitude and General Awareness

Pre-requisite: Basic knowledge of any programming language.

Rationale: The study of This subject will develop an understanding of Web page designing and .Net Technology. This subject incorporates basic concepts of HTML and ASP.Net. These all concepts will help students to develop new projects and applications in .Net Technology.

Course Outcomes:

91CA208-C 1: Understanding of various features of HTML .
91CA208-C 2: Understand the concept of .NET frame work with ASP .NET
91CA208-C 3: Design and develop software using .net tools.
91CA208-C 4: Web Forms with ADO.NET.
91CA208-C 5: Develop dynamic Web applications using XML in .NET technology.

Scheme of Studies:

Board of Study	Course Code	Course Title	Scheme of studies(Hours/Week)					Total Credits (C)
			Cl	(LI+T)	SW	SL	Total Study Hours (CI+LI+SW+SL+T)	
Elective-4	91CA208-C	Programming with ASP.net Aptitude and General Awareness	4	4	1	1	10	6

Legend: **CI:** Classroom Instruction (Includes different instructional strategies i.e. Lecture (L) and Tutorial (T) and others),
LI: Laboratory Instruction (Includes Practical performances in laboratory workshop,field or other locations using different instructional strategies)
SW: Sessional Work (includes assignment, seminar, mini project etc.),

SL: Self Learning,
C: Credits.

Note: SW & SL has to be planned and performed under the continuous guidance and feedback teachers ensure outcome of Learning.

Scheme of Assessment:

Theory

Board of Study	Couse Code	Course Title	Scheme of Assessment (Marks)		
			Progressive Assessment (PRA)	End Semester Assessment	Total Marks (PRA+ ESA)

			Class/Home Assignment 5 number 3 marks each (CA)	Class Test 2 (2 best out of 3) 10 marks each (CT)	Seminar one (SA)	Class Activity any one (CAT)	Class Attendance (AT)	Total Marks (CA+CT+SA+ CAT+AT)		
Elective-4	91CA208-C	Programming with ASP.net Aptitude and General Awareness	15	20	5	5	5	50	50	100

Practical

Board of Study	Couse Code	Course Title	Scheme of Assessment (Marks)						
			Progressive Assessment (PRA)					End Semester Assessment (ESA)	Total Marks (PRA+ ESA)
			Class/Home Assignment 5 number 3 marks each (CA)	Viva1 (5)	Viva2 (5) (SA)	Class Attendance (AT)	Total Marks (CA+CT+SA+C AT+AT)		
Elective-4	91CA208-C	Programming with ASP.net Aptitude and General Awareness	35	5	5	5	50	50	100

Course-Curriculum Detailing:

This course syllabus illustrates the expected learning achievements, both at the course and session levels, which students are anticipated to accomplish through various modes of instruction including Classroom Instruction (CI), Laboratory Instruction (LI), Sessional Work (SW), and Self-Learning (SL). As the course progresses, students should showcase their mastery of Session Outcomes (SOs), culminating in the overall achievement of Course Outcomes (COs) upon the course's conclusion.

91CA208-C.1: Understanding of various features of HTML.

Approximate Hours

Item	Appx. Hrs.
Cl	12
LI	12
SW	1
SL	1
Total	26

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)
SO1.1. Discuss about web pages and website. **SO1.2.** Discuss about Concept of Hyper text , HTML and script language. **SO1.3.** Discuss about HTML Element with their head and body section **SO1.4.** Discuss about word Formatted text **SO1.5.** Discuss about a How to link two or more web pages **SO1.6.** Discuss about Table layout ,list and list tag . **SO1.7.** Discuss about Use of Frames and Forms in web pages	**LI1.1.** Write an program to link two web pages. **LI1.2.** Write a program to create link on image. **LI1.3.** Write HTML code to keep student records. **LI1.4.** Example of table tag **LI1.5.** Example of Frame **LI1.6.** Example of Form	**Unit-1: Concepts of Hypertext & HTML** 1.1 Elements of HTML syntax, 1.2 Head & Body Sections 1.3 Building HTML documents, 1.4 Inserting texts Images , 1.5 Hyperlinks, 1.6 Backgrounds and 1.7 Color controls, 1.8 HTML tags Toolbox, 1.9 Table layout and presentation, 1.10 Use of front size & Attributes. 1.11 List types and its tags 1.12 Use of Frames and Forms in web pages.	1. Learn about concept of Hyper text and HTML programming.

SW-1 Suggested Sessional Work (SW):

a. Assignments:

1. Explain concept of hyper test and html.
2. Define table tag with example.
3. Define list tag in html with Example.

b. Other Activities (Specify):

Seminar and Tutorial

91CA208-C..2: Understand the concept of .NET frame work with ASP .NET

Approximate Hours

Item	Appx. Hrs.
Cl	12
LI	12
SW	1
SL	1
Total	26

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)

SO1.1 Understand the concept of .NET Tools: control Class, SO2.2 Understand the Text Boxes, Rich Text Boxes, Labels, Link Labels, Buttons, SO2.3 Discuss about the Checkboxes, Radio Buttons, Panels, SO2.4 Discuss about the Group Boxes, List Boxes, Checked List Boxes, SO2.5 Discuss about the Combo Boxes, and Picture Boxes SO2.6 Discuss about the Scroll Bars, Splitters, Track Bars, Pickers, SO2.7 Discuss about	LI2.1. Write a program to implement MDI. LI2.2. Implementation of dialog boxes. LI2.3. Design a form using form controls to get information of any user. LI2.4. Design a form using using buttons LI2.5. Design a form using checkbox and radio buttons LI2.6. Listbox and combobox	**Unit-2 Overview of Dynamic Web page:** 2.1 introduction & features of ASP.NET. 2.2 Understanding ASP.NET Controls, Applications, 2.3 Web servers, 2.4 IIS, 2.5 Web forms, 2.6 web form controls, 2.7 server controls, 2.8 client controls. 2.9 Adding controls to a web form, 2.10 Buttons, 2.11 Text Box, Labels, Checkbox, 2.12 Radio Buttons, List Box.	1. Practice the .Net programming with different topics.

the Notify Icons, Tool Tips, and Timers, SO2.8 Discuss about the Menus, Built-in Dialog Boxes, and Printing, Image Lists, SO2.9 Discuss about the Tree and List Views, Toolbars, Status SO2.10 Discuss about the Progress Bars, and Tab Controls			

SW-2 Suggested Sessional Work (SW):

a. Assignments:

1. Write a program in ASP.net using loop.
2. Describe mouse event in .net.
3. Write a program in ASP.net use of operators.

b. Other Activities(Specify):

Seminar and Tutorial

91CA208-C..3: Design and develop software using .net tools.

Approximate Hours

Item	Appx. Hrs.
Cl	12
LI	12
SW	1
SL	1
Total	26

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)
SO3.1 Understand the concept of .NET Tools: Control Class, SO3.2 Understand the Text Boxes, Rich Text Boxes, Labels, Link Labels, Buttons, SO3.3 Discuss about the Checkboxes, Radio Buttons, Panels, SO3.4 Discuss about the Group Boxes, List Boxes, Checked List Boxes, SO3.5 Discuss about the Combo Boxes, and Picture Boxes SO3.6 Discuss about the Scroll Bars, Splitters, Track Bars, Pickers, SO3.7 Discuss about the Notify Icons, Tool Tips, and Timers, SO3.8 Discuss about the Menus, Built-in Dialog Boxes, and Printing, Image Lists, SO3.9. Discuss about Validation Controls SO3.10. Discuss about Calendars.	LI3.1. Create a web page with use of different validation controls. LI3.2. Example of client side validation LI3.3. Example of server side validation LI3.4. Example of calendar control LI3.5. Example of IE control LI3.6. Example of form validation	**UNIT-3 Running a web Application** 3.1 creating a multiform web project, 3.2 Form Validation: 3.3 Client-side validation, 3.4 server-side validation, 3.5 Validation Controls: 3.6 Required Field 3.7 Comparison Range. 3.8 Calendar control, 3.9 Ad rotator Control, 3.10 Internet Explorer Control, 3.11 Accessing Data using Data Adapters and 3.12 Datasets.	1. Compare and analyze all tools in .net.

SW-3 Suggested Sessional Work (SW):

a. Assignments:

1. Develop a windows form using label, textbox and button tools.
2. Develop a windows form using picture box and combo box.
3. Develop a windows form using list views

Other Activities (Specify):

Seminar and Tutorial

91CA208-C..4: Web Forms with ADO.NET.

Approximate Hours

Item	Appx. Hrs.
Cl	10
LI	12
SW	1
SL	1
Total	24

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)
SO4.1. Understand the concept of Web Forms with ASP.NET: Web Form Controls, **SO4.2.** Discuss about HTML, Web Applications, **SO4.3.** Discuss about Multiform Web Project **SO4.4.** Discuss about Client Events, Title Bar Text, Error Page, **SO4.5.** Discuss about Search Engine Keywords **SO4.6.** Discuss about Embedding Visual Basic Code in Web	**LI4.1.** Create a web page with use of different validation controls. **LI4.2.** Write code for ADO connected modal implementation **LI4.3.** Write code for ADO disconnected modal implementation **LI4.4.** Example of search engines **LI4.5.** Example of database in ASP.NET **LI4.6.** Using datasets.	**Unit 4: : Data Access with ADO.NET** 4.1 Creating Connection. 4.2 Accessing Data using Data Adapters and Datasets-1 4.3 Accessing Data using Data Adapters and Datasets-2 4.4 Search Engine 4.5 Keywords. 4.6 using Command-1 4.7 using Command-2 4.8 using Data Reader-1 4.9 using Data Reader-2 4.10 Projects in ASP.NET using database.	1. Learn about html, client event, Web services etc. Client event, web services

SW-4 Suggested Sessional Work (SW):

a. Assignments:

1. Discuss web form controls.
2. Define validation controls.
3. Define web services.

b. Other Activities (Specify):

Seminar and Tutorial

91CA208-C..5: Develop dynamic Web applications using XML in .NET technology.

Approximate Hours

Item	Appx. Hrs.
Cl	14
LI	12
SW	1
SL	1
Total	28

Session Outcomes (SOs)	Laboratory Instruction (LI)	Classroom Instruction (CI)	Self-Learning (SL)
SO5.1. Understand the concept of XML in .NET **SO5.2.** XML basics, attributes, fundamental XML classes **SO5.3.** Discuss about Document, text writer, textreader. **SO5.4.** Discuss about Data Adapter Controls, Dataset Schema, **SO5.5.** Discuss about XML validations, XML in ADO.NET, The XML Data Document **SO5.6.** Discuss about Web services, State management-View state, Session state, Application state SOAP **SO5.7.** Discuss about web service description language	**LI5.1.** Make a text editor (IDE) using Rich Textbox Control. **LI5.2.** How design master webpage in own website. **LI5.3.** How to implement Calendar Control. **LI5.4.** Example of XML tags **LI5.5.** Example of XML validations **LI5.6.** Example of XML DTD	**Unit 5: Introduction to XML in .NET** **5.1.** XML basics, **5.2.** attributes, **5.3.** fundamental XML classes, **5.4.** Document, text writer, **5.5.** text reader **5.6.** XML validations, **5.7.** XML in ADO.NET, **5.8.** The XML Data Document **5.9.** Introduction to Web services, **5.10.** State management **5.11.** View state, **5.12.** Session state, **5.13.** Application state SOAP **5.14.** web service description language	1. learn through practically database connectivity and use in software development

SW-5 Suggested Sessional Work (SW):

a. Assignments:

1. Define dataset and data adapter.
2 How to bind controls with database?
3. Explain Simple and Complex Binding.

b. Other Activities(Specify):

Seminar and Tutorial

Brief of Hours Suggested for the Course Outcome

Course Outcomes	Class Lecture (Cl)	Laboratory instruction(LI)	Sessional Work (SW)	Self-Learning (Sl)	Total hour (Cl+LI+SW+Sl)
91CA208-C.1: Understanding of various features of HTML	12	12	1	1	26
91CA208-C.2: Understand the	12	12	1	1	26

concept of .NET frame work with ASP .NET					
91CA208-C..3: Design and develop software using .net tools	12	12	1	1	26
91CA208-C..4 Web Forms with ADO.NET.	10	12	1	1	24
91CA208-C..5: Develop dynamic Web applications using XML in .NET technology.	14	12	1	1	28
Total Hours	60	60	5	5	130

Suggestion for End Semester Assessment

Suggested Specification Table (For ESA)

CO	Unit Titles	Marks Distribution			Total Marks
		R	U	A	
CO-1	Concepts of Hypertext & HTML	03	02	03	08
CO-2	Overview of Dynamic Web page	03	01	05	09
CO-3	Running a web Application	03	07	02	12
CO-4	Data Access with ADO.NET	03	05	05	13
CO-5	Introduction to XML in .NET	03	02	03	08
Total		15	17	18	50

Legend: R: Remember, U: Understand, A: Apply

The end-of-semester assessment for Dot Net Programming with VB.Net & ASP.Net will be held with written examination of 50 marks.

Suggested Learning Resources:

a. Books:

S. No.	Title	Author	Publisher	Edition &Year
1	The Complete Reference ASP.NET	by Mathew Macdonald, TMH	TMH	
2	Professional ASP.NET	Evangelos Petroutsos	Wrox publication.	

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Faculty of Computer Application & Information Technology and Science

Department of Computer Application & Information Technology

Curriculum of PGDCA (Post Graduate Diploma in Computer Application)

(Revised as on 01 August 2023)

Curriculum Development Team

1. Mr. Roopesh Jaishwal , HOD, Department of Computer Science .
2. Ms. Anamika Mishra, Department of Computer Science.
3. Ms. Rashmi Rani Gautam, Department of Computer Science.
4. Ms. Aarti Singh Parihar, Department of Computer Science.
5. Miss. Arjita Singh Rajawat,Department of Computer Science.
6. Mr. Imran Ahmad Ansari, Department of Computer Science.

COs, POs and PSOs Mapping

Program: PGDCA Computer Science
Course Code: 91CA208-C
Course Title: Programming with ASP.net Aptitude and General Awareness

Course Outcomes	Program Outcomes												Program Specific Outcome				
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PS0 5
	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct studies of difficult problems	Utilization of modern tools	Engineers and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-longlearning	Use fundamental knowledge of math, science, and engineering to comprehend, evaluate, and create computer Programmes in the fields of algorithms, multimedia, big data analytics, machine learning, artificial intelligence, and networking for the effective design of computer-based systems of various complexity	Utilize relevant methods and cutting-edge hardware and software engineering tools to develop and integrate computer systems and related technologies. This PSO2 also encourages lifelong learning for the advancement of technology and its use in multidisciplinary settings	Applying professional engineering solutions for societal improvement while taking into account the environmental context, being conscious of professional ethics, and being able to effectively communicate.	Learn and use the most recent Artificial Intelligence and Data Science technologies in the fields of engineering and computer science	Recognize and examine issues in real life, then offer creative software solutions with the help of AI and Data Science Technologies.
CO 1: Concepts of Hypertext & HTML	2	3	3	2	1	2	1	1	1	1	1	2	**2**	**3**	**1**	**2**	**2**
CO2: Overview of Dynamic Web page	2	2	3	3	1	2	1	1	1	1	1	3	**2**	**2**	**2**	**2**	**2**
CO3: Running a web Application	2	3	3	2	1	1	1	1	1	1	1	3	**1**	**1**	**2**	**2**	**2**
CO4: Data Access with ADO.NET	2	2	3	3	1	2	1	1	1	1	1	3	**2**	**3**	**1**	**2**	**2**
CO 5: Introduction to XML in .NET	2	3	3	3	2	2	1	1	1	1	3	3	**2**	**3**	**1**	**1**	**2**

Legend: 1 – Low, 2 – Medium, 3 – High

Course Curriculum Map

POs & PSOs No.	COs No.& Titles	SOs No.	Classroom Instruction(CI)	Self-Learning(SL)
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4	CO 1: Understanding of various features of .NET Framework	SO1.1 SO1.2 SO1.3 SO1.4 SO1.5 SO1.6 SO1.7 SO1.8	Unit-1: NET Framework: 1.1,1.2,1.3,1.4,1.5,1.6,1.7,1.8	As mentioned in page number _ to _
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4, 5	CO 2: Design and develop event-driven GUI applications using VB.NET	SO2.1 SO2.2 SO2.3 SO2.4 SO2.5 SO2.6 SO2.7 SO2.8 SO2.9	Unit-2 : Visual Basic .NET Language: 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7,2.8,2.9	
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4	CO 3: Design and develop software using .net tools.	SO3.1 SO3.2 SO3.3 SO3.4 SO3.5 SO3.6 SO3.7 SO3.8 SO3.9 SO3.10	Unit-3 : .NET Tools 3.1,3.2,3.3,3.4,3.5,3.6,3.7,3.8,3.9,3.10	

PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4	CO 4: Web Forms with ASP.NET.	SO4.1 SO4.2 SO4.3 SO4.4 SO4.5 SO4.6 SO4.7 SO4.8 SO4.9 SO4.10	Unit-4: Web Forms with ASP.NET 4.1,4.2,4.3,4.4,4.5,4.6,4.7,4.8,4.9,4.10	
PO 1,2,3,4,5,6,7, 8,9,10,11,12 PSO 1,2, 3, 4	CO 5: Develop dynamic Web applications using databases in .NET technology	SO5.1 SO5.2 SO5.3 SO5.4 SO5.5 SO5.6 SO5.7 SO5.8	Unit-5 : Data Access with ADO.NET 5.1,5.2,5.3,5.4,5.5,5.6,5.7,5.8	