SCHEME & SYLLABUS

(Choice Based Credit System)

For

Post Graduate Diploma in Computer Applications

(w.e.f. Session 2016-17)

Syllabus (Session: 2016-2017)

Department of Computer Science & Application

RIMT UNIVERSITY, MANDIGOBINDGARH, PUNJAB

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SECTION 1

Vision & Mission of the University

VISION

To become one of the most preferred learning places and a centre of excellence to promote

and nurture future leaders who would facilitate the desired change in the society.

MISSION

- To impart teaching and learning through cutting-edge technologies supported by the

  world class infrastructure

- To empower and transform young minds into capable leaders and responsible citizens

  of India instilled with high ethical and moral values.

- To develop human potential to its fullest extent and make them emerge as world class

  leaders in their professions and enthuse them towards their social responsibilities.

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SECTION 2

Vision and Mission of the Department

VISION

Strives to groom students with diverse backgrounds into competitive software professionals

with moral values and committed to build a vibrant nation.

MISSION

- To provide a strong theoretical and practical background across the computer science

  discipline with an emphasis on software development.

- To provide technical solutions in the field of Information technology to the local society.

- To provide need-based quality training in the field of Information Technology.

- To provide students with the tools to become productive, participating global citizens
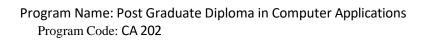
  and life-long learners.

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SECTION 3

Program Educational Objectives (PEOs), Program Outcomes (POs) and Program Specific Outcomes (PSOs)

PROGRAM EDUCATION OBJECTIVES (PEO)

PEO1	Demonstrate analytical and design skills including the ability to generate creative solutions and foster team-oriented professionalism through effective communication in their careers.
PEO2	Graduates would expertise in successful careers based on their understanding of formal and practical methods of application development using the concept of computer programming languages and design principles in national and international level.
PEO3	Exhibit the growth of the nation and society by implementing and acquiring knowledge of upliftment of health, safety and other societal issues.
PEO4	Implement their exhibiting critical thinking and problem- solving skills in professional practices or tackle social, technical and business challenges

PROGRAM OUTCOMES (PO)

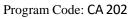| Program Credits	**52**
Number of Semesters	Total 2 semester in 1 years
Program Outcomes(PO): on successful completion of this Program, the learner will be able to:	
PO1	*Disciplinary knowledge:* Apply the knowledge of mathematics, science, computing fundamentals, and a Computing specialization to the solution of complex problems..
PO2	*Problem analysis:* Identify, formulate, review research literature, and analyse complex computing problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and computing sciences.

PO3	*Design/development of solutions:* Design solutions for complex problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
PO4	*Conduct investigations of complex problems:* Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
PO5	*Modern tool usage:* Create, select, and apply appropriate techniques, resources, and modern Computer Science and IT tools including prediction and modelling to complex computing activities with an understanding of the limitations.

PO6	*The Computer professional and society:* Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional computing practice.
PO7	*Environment and sustainability:* Understand the impact of the professional computing solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
PO8	*Ethics:* Apply ethical principles and commit to professional ethics and responsibilities and norms of the computing practice.
PO9	*Individual and team work:* Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO10	*Communication:* Communicate effectively on complex Computing activities with the Computer Science community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
PO11	*Project management and finance:* Demonstrate knowledge and understanding of the Computer Science and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
PO12	*Lifelong learning:* Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Program Specific Outcomes (PSO)

Program Specific Outcomes(PSO's): on successful completion of this Program, the learner will be able to:	
PO1	**Knowledge of Computing Systems:** An ability to understand the principles and working of computer systems.
PO2	**Project Development Skills:** An ability to understand the structure and development methodologies of software systems.
PO3	**Software Development Skills:** Familiarity and practical competence with a broad range of programming language and open-source platforms.
PO4	**Mathematical Skills:** An ability to apply mathematical methodologies to solve computation task, model real world problem using appropriate data structure and suitable algorithm.

SECTION 4

Curriculum / Scheme with Examination Grading Scheme

SEMESTER WISE SUMMARY OF THE PROGRAMME:

(PGDCA)

S. No.	Semester	No. of Contact Hours	Marks	Credits
1.	I	33	700	26
2.	II	33	700	26
	Total	66	1400	52

EXAMINATION GRADING SCHEME

Marks Percentage Range	Grade	Grade Point	Qualitative Meaning
80-100	O	10	Outstanding
70-79	A+	9	Excellent
60-69	A	8	Very Good
55-59	B	7	Good
50-54	B	6	Above Average
45-49	C	5	Average
40-44	P	4	Fail
0-39	F	0	Fail
ABSENT	AB	0	Fail

Percentage Calculation: CGPA *10

FIRST SEMESTER

Course		Contact Hours/Week			Credit	Contact Hrs.	Evaluation Scheme (% of Total Marks)			Exam Duration (Hours)
Course Code	Course Title	L	T	P			Internal	External	Total	
PGDCA1101	Introduction to Computers and IT	4	1	0	4.5	5	40	60	100	3 Hrs
PGDCA1102	Programming In C	4	1	0	4.5	5	40	60	100	3 Hrs
PGDCA1103	Personality Development-I	3	0	0	3	3	40	60	100	3 Hrs
PGDCA1104	System Analysis and Design	5	1	0	4.5	6	60	40	100	3 Hrs
PGDCA1105	Mathematical Foundation of Computer Science I	5	1	0	5.5	6	40	60	100	3 Hrs
PGDCA1106	S/W Lab - I (Introduction to Computers and IT)	0	0	4	2	4	60	40	100	3 Hrs
PGDCA1107	Programming In C(LAB)	0	0	4	2	4	60	40	100	3 Hrs
					26				700	

SECOND SEMESTER

Course		Contact Hours/Week			Credit	Contact Hrs.	Evaluation Scheme (% of Total Marks)			Exam Duration (Hours)
Course Code	Course Title	L	T	P			Internal	External	Total	
PGDCA1201	Data Structure Using C	4	1	0	4.5	5	40	60	100	3 Hrs
PGDCA1202	Database Management System	4	1	0	4.5	5	40	60	100	3 Hrs
PGDCA1203	Project Work	0	0	6	3	3	40	60	100	3 Hrs
PGDCA1204	Management Information System	4	1	0	4.5	6	60	40	100	3 Hrs
PGDCA1205	Operating System	5	1	0	5.5	6	40	60	100	3 Hrs
PGDCA1206	S/w Lab-III (Data Structure Using C)	0	0	4	2	4	60	40	100	3 Hrs
PGDCA1207	S/W LAB-IV (DBMS)	0	0	4	2	4	60	40	100	3 Hrs
					26				700	

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SECTION 1

Detailed Syllabus with Course Outcomes

SYLLABUS

SEMESTER-I

Programme	PGDCA
Course Full Title	Introduction to Computers and IT
Course Short Title	CIT
Course Code	PGCA1101
Course Credit	4.5
Semester	1
Internal /External	External
Specialization	NA
Core/Elective	Core

Course Outcomes(CO)/Learning Outcomes

At the completion of the course, students will be able to:

PGCA1101.1	Understanding the concept of input and output devices of Computers
PGCA1101.2	Learn the functional units and classify types of computers, how they process information and how individual computers interact with other computing systems and devices
PGCA1101.3	Understand an operating system and its working, and solve common problems related to operating systems
PGCA1101.4	Learn basic word processing, spreadsheet and Presentation Graphics software skills.
PGCA1101.5	Study to use the Internet safely, legally, and responsibly

CO	CO-PO Mapping Matrix									
	Program Outcomes (POs)							PSO		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
PGCA1101.1	3	1	1	3		2	1	3	-----	-----
PGCA1101.2	3	2	1	3	2	2	2	2	-----	-----
PGCA1101.3	2	3	2	2	2	2	2	3	-----	2
PGCA1101.4	3	3	3	3		3	3	3	2	2
PGCA1101.5	3	2		3	3		3	2	-----	1
Average	**2.8**	**2.2**	**1.4**	**2.8**	**1.4**	**1.8**	**2.2**	**2.6**	**0.4**	**1**

Programme	PGDCA
Course Full Title	**Programming In C**
Course Short Title	C Prog.
Course Code	PGCA1102
Course Credit	4.5
Semester	I
Internal /External	External
Specialization	NA
Core/Elective	Core

Course Outcomes(CO)/Learning Outcomes	
On successful completion of this course, the learner will be able to	
PGCA1102.1	Identify the need and use of programming in real world environment.
PGCA1102.2	Understanding of using data types, variables and arithmetic operations in programming
PGCA1102.3	Understand the fundamentals of control statements.
PGCA1102.4	Understand concept of functions, pointer and Array.
PGCA1102.5	Implement different Operations on structures, unions and files.

CO	CO-PO Mapping Matrix									
	Program Outcomes (POs)							PSO		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
PGCA1102.1	1	1	1	1	1	1	2	2	1	1
PGCA1102.2	1	1	1	2	1	3	1	1	1	1
PGCA1102.3	1	1	1	3	3	2	2	2	2	1
PGCA1102.4	1	3	2	3	2	2	3	2	3	3
PGCA1102.5	1	3	2	3	2	3	2	2	2	3
Average	1	1.8	1.4	2.4	1.8	2.2	2	1.8	1.8	1.8

Programme	PGDCA
Course Full Title	**Personality Development-I**
Course Short Title	PD
Course Code	PGCA1103
Course Credit	3
Semester	I
Internal /External	External
Specialization	NA
Core/Elective	Core
Course Outcomes(CO)/Learning Outcomes	
At the completion of the course, students will be able to:	
PGCA1103.1	Identify their own potentials and accept their limitations
PGCA1103.2	Make use of techniques for self-awareness and self-development.
PGCA1103.3	Consciously overcome their limitations and move towards self-esteem.
PGCA1103.4	Understand the importance of team building and time management..

PGCA1103.5	Learn to overcome problems associated with personality.

CO	CO-PO Mapping Matrix								PSO	
	Program Outcomes (POs)								PSO	
	PO1	PO2	PO3	PO4	PO5	PO6	PO7		PSO2	PSO3
PGCA1103.1	-	1	2	1	1	3	3	-	-	-
PGCA1103.2	-	1	1	1	2	3	3	-	-	-
PGCA1103.3	-	1	1	1	2	3	3	-	1	-
PGCA1103.4	-	1	2	1	3	3	3	-	-	1
PGCA1103.5	-	2	2	1	3	3	3	-	-	-
Average	-	1.2	1.6	1	2.2	3	3	-	1	1

Programme	PGDCA
Course Full Title	System Analysis and Design
Course Short Title	
Course Code	PGCA1104
Course Credit	4.5
Semester	1st
Internal/External	External
Specialization	NA
Core/Elective	Core

Course Outcome (CO)/Learning Outcome, on successful completion of this course, the learner will be able to:

PGCA1101.1	Learn different types of information system in an organization like MIS & DSS and understand the phases for SDLC.				
PGCA1101.2	Able to gather data to analyze and specify the requirements of a system.				
PGCA1101.3	Develop and analyze data flow diagrams and explain how to develop the project budget.				
PGCA1101.4	Design system input/output components and environments and also describe the processof moving from logical to physical data models.				

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PGCA1104.5	Understand the techniques in testing phase for better quality assurance.				

CO	CO-PO Mapping Matrix									
	Program Outcomes (POs)							PSO		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
PGCA1104.1	3	2	3	2	1		1	2	1	1
PGCA1104.2	2	2	1	2			1	2	2	2
PGCA1104.3	2	3	2	2	1			2	2	2
PGCA1104.4	3	2	1	2			1	1		1
PGCA1104.5	2	2	2	3	1		1	1	1	1
Average	2.4	2.2	1.8	2.2	0.6		.8	1.6	1.2	1.4

Programme	PGDCA
Course Full Title	**Mathematical Foundation of Computer Science I**
Course Short Title	
Course Code	PGCA1105
Course Credit	5.5
Semester	I
Internal /External	External
Specialization	NA
Core/Elective	Core

Course Outcomes(CO)/Learning Outcomes

On successful completion of this course, the learner will be able to

PGCA1105.1	After the successful completion of this course student will be able to identify domain and range of a function and relation, helps to use of their notation and evaluation.
PGCA1105.2	The student will be able to work with matrices in many problems and learn to compute determinants.
PGCA1105.3	This course provides the knowledge to find derivatives of exponential,logarithmic functions and parametric form.
PGCA1105.4	During this course students know the importance of integration in many problems and their use.
PGCA1105.5	With the knowledge of probability, students will be able to solve many problems in daily life.

CO	CO-PO Mapping Matrix								PSO		
	Program Outcomes (POs)								PSO		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
PGCA1105.1	3	2	1	1			1	2		1
PGCA1105.2	2	1	1	1		1	1	1	1	
PGCA1105.3	2	2	2					2	1	
PGCA1105.4	2	2	2	1	1		1	2	3	1
PGCA1105.5	2	1	3	1			1	2	2	1
Average	2.2	1.6	1.8	0.8	0.2	0.2	0.8	1.8	1.2	0.6

Programme	PGDCA
Course Full Title	S/W Lab - I (Introduction to Computers and IT)
Course Short Title	Learn various types of information systems at various levels of the organizations.
Course Code	PGCA1106
Course Credit	2
Semester	1st
Internal/External	External
Specialization	NA
Core/Elective	Core

Course Outcome (CO)/Learning Outcome, On successful completion of this course, the learner will be able to

PGCA1106.1	Understand the basic concept of Microsoft Disk Operating System Internal and External command interface				
PGCA1106.2	Work on MS Paint and its also learn to save images on different modes				
PGCA1106.3	Learn how to write a various types of letters and manage with latesttools of MS-Word				
PGCA1106.4	Understand and execute the MS Excel functions, graphs and manage organizational data				
PGCA1106.5	Study how to prepare and present the slides on different aspects				

CO	CO-PO Mapping Matrix								PSO		
	Program Outcomes (POs)								PSO		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
PGCA1106.1	3	1		2			1	3		

PGCA1106.2	2	1		3						
PGCA1106.3	3	1	2	3	2	2	1	3		1
PGCA1106.4	3	2	2	3	2	2	1	3	2	2
PGCA1106.5	3	1		2	1		1	3		
Average	2.8	1.2	0.8	2.6	1	0.8	0.8	2.4	0.4	0.6

Programme	PGDCA
Course Full Title	**Programming In C(LAB)**
Course Short Title	S/W LAB II
Course Code	PGCA1107
Course Credit	2
Semester	I
Internal /External	External
Specialization	NA
Core/Elective	Core

Course Outcomes(CO)/Learning Outcomes
On successful completion of this course, the learner will be able to

PGCA1107.1	Understand to create, save, compile and run a program In C.
PGCA1107.2	Understand and develop programming skills using the fundamentals and basics of C Language.
PGCA1107.3	Develop programs using the basic elements like control statements.
PGCA1107.4	Develop programs using Arrays and Strings.
PGCA1107.5	Implement structures, functions and pointers.

CO	CO-PO Mapping Matrix									
	Program Outcomes (POs)							PSO		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
PGCA1107.1	1	1	1	1	1	1	1	2	1	1
PGCA1107.2	2	2	1	1	1	1	1	1	1	1
PGCA1107.3	2	2	2	2	2	2	2	2	1	1
PGCA1107.4	2	2	2	2	2	3	3	2	3	1
PGCA1107.5	2	2	2	3	2	3	2	2	2	3
Average	2.8	2.8	1.6	1.8	1.6	2	1.8	1.8	1.6	1.4

Detailed Syllabus with Course Outcomes

SYLLABUS

SEMESTER-2

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Programme	PGDCA
Course Full Title	Data Structure Using C
Course Short Title	DS
Course Code	PGCA1201
Course Credit	4.5
Semester	II
Internal /External	External
Specialization	NA
Core/Elective	Core
Course Outcomes(CO)/Learning Outcomes On successful completion of this course, the learner will be able to	
PGCA1201.1	Understand the concept of algorithm and complexity to choose appropriate solution to problem
PGCA1201.2	Understanding basic data structure such as array, linked list, Stacks, Queues.
PGCA1201.3	Implement different types of trees and apply them to problem solutions
PGCA1201.4	To learn graph structure and various operations on graphs and their applicability.
PGCA1201.5	Apply Algorithm for solving problems like sorting, searching, insertion and deletion of data

CO	CO-PO Mapping Matrix									
	Program Outcomes (POs)							PSO		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
PGCA1201.1	2	2	1	1				2		
PGCA1201.2	2	2	2	2			1	2		
PGCA1201.3	2	2	2	3	1		2	2	1	1
PGCA1201.4	2	2	2	2	1		2	2	3	
PGCA1201.5	2	2	2	2	1		2	2	2	1
Average	2.0	2.0	1.8	2.0	0.6		1.4	2.0	1.2	0.4

Programme	PGDCA
Course Full Title	**Database Management System**
Course Short Title	DBMS
Course Code	PGCA1202
Course Credit	4.5
Semester	II
Internal /External	External
Specialization	NA

Core/Elective	Core
Course Outcomes(CO)/Learning Outcomes On successful completion of this course, the learner will be able to	
PGCA1202.1	Identify the basic concepts of database systems, file system, Role of DBA.
PGCA1202.2	Describe the concept of DBMS Architecture, Data Base Models, ER Model ,Concurrency Control and Recovery
PGCA1202.3	Analyze the different normalization techniques which possess no anomalies in design a database.
PGCA1202.4	Formulate DDL,DML, DCL commands using various queries in SQL
PGCA1202.5	Evaluate various programs conditional control, iterative by gaining the complete knowledge of PL/SQL.

CO	CO-PO Mapping Matrix									
	Program Outcomes (POs)							PSO		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
PGCA1201.1	2	1						1	1	
PGCA1201.2	2	1	1			1		1	1	
PGCA1201.3	2	2	2					2	2	1
PGCA1201.4	2	2	1			1	1	2	1	
PGCA1201.5	1	3	3			1	1	2	2	1
Average	1.8	1.8	1.4			0.6	0.4	1.6	1.4	0.4

Programme	PGDCA
Course Full Title	**Project Work**
Course Short Title	PW
Course Code	PGCA1203
Course Credit	3.5
Semester	II
Internal /External	External
Specialization	NA
Core/Elective	Core
Course Outcomes(CO)/Learning Outcomes At the completion of the course, students will be able to:	
PGCA1203.1	Analyze the problem, formulation and solution of the selected project.
PGCA1203.2	Develop solutions for contemporary problems using modern tools for sustainable development.

PGCA1203.3	Understanding the concept of feasibility study and deadlines
PGCA1203.4	Understanding the concept of feasibility study and deadlines
PGCA1203.5	Understanding importance of Cost estimation, quality management and maintenance of product.

CO	CO-PO Mapping Matrix									
	Program Outcomes (POs)							PSO		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
PGCA1203.1	-	1	1	-	1	3	3	-	-	-
PGCA1203.2	-	1	1	1	1	3	3	-	1	-
PGCA1203.3	-	1	1	1	1	3	3	-	-	-
PGCA1203.4	-	1	1	1	1	3	3	-	-	1
PGCA1203.5	1	1	1	1	1	3	3	-	-	-
Average	1	1	1	1	1	3	3	-	1	1

Programme	PGDCA
Course Full Title	Management Information System
Course Short Title	.MIS
Course Code	PGCA1204
Course Credit	4.5
Semester	IInd
Internal/External	External
Specialization	NA
Core/Elective	Core

Course Outcome (CO)/Learning Outcome, On successful completion of this course, the learner will be able to

PGCA1204.1	Understand the roles of Information systems in contemporary organizations				
PGCA1204.2	Learn various types of information systems at various levels of the organizations.				
PGCA1204.3	Learn how to analyze and design an information system based on user requirements.				
PGCA1204.4	Understand the strategic role of information systems and information technology in organizations.				
PGCA1204.5	Learn and use of management information systems within an information systems environment. [IS]				

CO	CO-PO Mapping Matrix									
	Program Outcomes (POs)							PSO		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
PGCA1204.1	3	2	2	1	1			2	2	1
PGCA1204.2	2	1	1		1	1	1	2		
PGCA1204.3	3	2	2	2	1	-----	2	2	2	1
PGCA1204.4	2	1	1	1		1	1	1	1	1
PGCA1204.5	2	2	1	2	1	1	2	1		
Average	2.4	1.6	1.4	1.2	.8	.6	.6	1.6	1	.6

Programme	PGDCA
Course Full Title	**Operating System**
Course Short Title	OS
Course Code	PGCA1205
Course Credit	5.5
Semester	II
Internal /External	External
Specialization	NA
Core/Elective	Core

Course Outcomes(CO)/Learning Outcomes	
PGCA1205.1	Understands the different services provided by Operating System at different level.
PGCA1205.2	They will learn different memory management techniques like paging, segmentation and demand paging etc.
PGCA1205.3	Exhibit familiarity with the fundamental concepts of file system in OS.
PGCA1205.4	Exhibit Disk scheduling algorithms used to implement an OS.
PGCA1205.5	Use of different process scheduling algorithm and synchronization techniques to avoid deadlock.

CO	CO-PO Mapping Matrix									
	Program Outcomes (POs)							PSO		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
PGCA1205.1	3	2		1	1		1	2		
PGCA1205.2	2	1	1					1		1

PGCA1205.3	2	2	2	1	1		1	2	1	1
PGCA1205.4	2	2	2	1	1		2	2	3	1
PGCA1205.5	2	1	3	1	2		1	2	2	1
Average	2.2	1.6	1.6	0.8	1		0.8	1.8	1.2	0.8

Programme	PGDCA
Course Full Title	S/w Lab-III (Data Structure Using C)
Course Short Title	DS LAB
Course Code	PGCA1206
Course Credit	2
Semester	II
Internal /External	External
Specialization	NA
Core/Elective	Core

Course Outcomes(CO)/Learning Outcomes

On successful completion of this course, the learner will be able to

PGCA1206.1	Applying knowledge on implementing operations on various Data structure like: Array, Linked list, Stack, Queue.
PGCA1206.2	Ability to design programs for Tree Traversals, Graph traversals etc.
PGCA1206.3	Implement and know the application of algorithms for sorting and searching.
PGCA1206.4	Ability to solve problems implementing appropriate data structures
PGCA1206.5	Implementing knowledge to make optimized code for problem solving.

CO	CO-PO Mapping Matrix									
	Program Outcomes (POs)							PSO		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
PGCA1206.1	2	1		1				2		
PGCA1206.2	2	2		1		1	1	2		
PGCA1206.3	2	2	1		1	1	2	2	1	1
PGCA1206.4	1	3		2	1	1	2	2	1	
PGCA1206.5	2	3		2	1		2	2	2	1
Average	1.8	2.2	0.2	1.2	0.6	0.6	1.4	2.0	0.8	0.4

Course Full Title	**S/W LAB-IV (DBMS)**
Course Short Title	DB LAB
Course Code	**PGCA1207**
Course Credit	2

Semester	II
Internal /External	External
Specialization	NA
Core/Elective	Core

Course Outcomes(CO)/Learning Outcomes

On successful completion of this course, the learner will be able to

PGCA1207.1	Creating tables by using different Data types and format in wizard, Data-sheet mode and in Design view in MS Access.
PGCA1207.2	Creating query using menu driven interface and query wizard. Apply various relationship b/w the existing data of the table in MS Access.
PGCA1207.3	Implement form by using wizard in columnar, tabular, datasheet and Justified layout. Creating Reports using wizard, design view, implement tools in report in MS Access.
PGCA1207.4	Create SQL queries on DDL,DML,DCL statements.
PGCA1207.5	Implement various programs using conditional control, iterative control in PL/SQL.

CO	CO-PO Mapping Matrix									
	Program Outcomes (POs)							PSO		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
PGCA1207.1	2	2	1					1		
PGCA1207.2	2	1	2					1		
PGCA1207.3	2	2	2					2	1	
PGCA1207.4	2	2	1	2		2		2	2	
PGCA1207.5	2	2	2	2		2		2	2	
Average	1.8	1.8	1.4					1.6	1	