GOVERNMENT DEGREE COLLEGE, RAYACHOTY, ANNAMAYYA DIST

DEPARTMENT OF COMPUTER APPLICATIONS

PROGRAMME OUTCOMES(POs)

PO1. Acquire a comprehensive understanding of domain-specific knowledge and demonstrate their acquired skills effectively during practical transactions within the specific domain.

PO2. Demonstrate proficient analytical and problem-solving skills through the application of critical thinking strategies to address real-world situations effectively.

PO3. Master effective communication, collaborate skilfully with diverse stakeholders, nurture meaningful dialogues, build strong professional bonds in and beyond college.

PO4. Exhibit proficiency in ethically using information from diverse sources, analysing and synthesizing data effectively for real-world research.

PO5. Exemplify ethical standards in personal and professional contexts, appreciate diverse cultures, evaluate social responsibility's impact on well-being, and advocate for women students' betterment.

PO6. Actively promote social awareness through community service, contributing to a more inclusive and compassionate global community.

PO7. Embrace continuous learning, create professional growth chances, and prioritize personality development and physical well-being for a holistic approach.

PO8. Foster self-confidence, advocate women empowerment, demonstrate expertise for growth in studies, employment, and entrepreneurship, creating a brighter and equitable future.

Programme Specific Outcomes(PSOs)

1. PSO 1: Proficiency in Business Software applications
2. PSO 2: E-Commerce and Digital Business Skills.

PROGRAMME: Four-Year BCom(Computer Applications) (Hons)
(w.e.f. 2020-21 Admitted Batch)

Domain Subject: Commerce (Computer Applications)
(Syllabus with Outcomes, Co-curricular Activities,ReferencesforFifteen Courses of 1, 2, 3 & 4 Semesters)

Structure of B.Com (Computer Applications)Programme under Revised CBCS

Sl. No	Code	Sem	Courses	Name of Course (Each Course consists 5 Units with each Unit having 12 hours of class-work)	Hours/ Week	Credits	Marks	
							Mid Sem	Sem End
1		I	1A	Fundamentals of Accounting	5	4	25	75
2		I	1B	Business Organization and Management	5	4	25	75
3		I	1C	**Information Technology**	3	3	25	75
		I	1C-P	**Information Technology practicals**	2	1	-	50
4		II	2A	Financial Accounting	5	4	25	75
5		II	2B	Business Economics	5	4	25	75
6		II	2C	**E-commerce and Web Designing**	3	3	25	75
		II	2C-P	**E-commerce and Web Designing - lab**	2	1	-	50
7		III	3A	Advanced Accounting	5	4	25	75
8		III	3B	Business Statistics	5	4	25	75
9		III	3C	**Programming with C & C++**	3	3	25	75
		III	3C-P	**Programming with C & C++**	2	1	-	50
10		IV	4A	Corporate Accounting	5	4	25	75
11		IV	4B	Cost and Management Accounting	5	4	25	75
12		IV	4C	Income Tax	5	4	25	75
13		IV	4D	Business Laws	5	4	25	75
14		IV	4E	**Object Oriented Programming With Java**	3	3	25	75
		IV	4E-P	**Object Oriented Programming With Java**	2	1	-	50
15		IV	4F	**Data Base Management System**	3	3	25	75
		IV	4F-P	**Data Base Management System**	2	1	-	50
Total					**75**	**60**	**375**	**1375**

Domain Subject: **Computer Applications for Arts/Commerce**

Skill Enhancement Courses (SECs) for Semester V, from 2022-23 *(Syllabus/Curriculum)*

Pair Options of SECs for Semester–V

(To choose One pair from the Four alternate pairs of SECs)

Univ. Code	Course NO. 6&7	Name of Course	Hrs. / Week	Max Marks IE	Max Marks EE	Credits
	6A	Big data Analytics using R	5	25	75	4
	7A	Data Science using Python	5	25	75	4
		OR				
	6B	Mobile application development	5	25	75	4
	7B	Cyber security and malware analysis	5	25	75	4
		OR				
	6C	E– commerce application development	5	25	75	4
	7C	Real time governance system (RTGS)	5	25	75	4
		OR				
	6D	Multimedia Tools and Applications	5	25	75	4
	7D	Digital imaging	5	25	75	4

Note-1: For Semester–V, for the domain subject Computer Applications, any one of the above four pairs of SECs shall be chosen as courses 6 and 7, i.e., 6A & 7A or 6B & 7B or 6C& 7C or 6D & 7D.The pair shall not be broken (ABCD allotment is random, not on any priority basis).

Note-2: *One of the main objectives of Skill Enhancement Courses (SEC) is to inculcate practical skills related to the domain subject in students. The syllabus of SEC will be partially skill oriented. Hence, teachers shall also impart practical training to students on the skills embedded in syllabus citing related real field situations.*

Note-3: *Since, the proposed SECs are connected to Computer Programming/Software Tools and Skill enhancement, the students need to get exposure on the syllabus content by practicing on the computer even though there is no formal assignment of credits and laboratory hours for practical sessions. So, as part of the Co-curricular activities and continuous assessment, students should be engaged in practicing on computer for at least 15 hours per subject/course.*

Course 1C: INFORMATION TECHNOLOGY

COURSE OUTCOMES

CO1: Understand the concepts of Computer Fundamentals

CO2: Understand the concepts of Memory Systems,Software Categorization and

.**CO3:** Develop skills in using MS-Word,Excel and PowerPoint

CO-PO Mapping

CO. No.	**Upon the successful completion of the course, students will be able to**	**POs mapped**	**Cognitive Level**
CO-1	Understand the concepts of ComputerFundamentals	PO1,PO2	L1,L2,L3
CO-2	Understand the concepts of Memory Systems,Software Categorization and Programming Language Evolution.	PO1,PO4	L1,L2
CO-3	Develop skills in using MS-Word,Excel and PowerPoint	PO1, PO3, PO7	L4,L5,L6

Mapping COs to POs: Alignment on a Three-Point Scale from Weak to Strong

CO	PO							
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	3		2				
CO2	2			2				
CO3	2		1				3	

Course 2C: E-COMMERCE & WEB DESIGNING

COURSE OUTCOMES

CO1: Understand the basic concepts and technologies used in the field of management information systems and its types.

CO2: Aware of the ethical, social, and security issues of information systems**.**

CO3: Design and Develop web pages through coding using HTML.

CO-PO Mapping

CO. No.	**Upon the successful completion of the course, students will be able to**	**POs Mapped**	**Cognitive Level**
CO-1	Understand the basic concepts and technologies used in the field of management information systems and its types.	PO1, PO2	L1,L2,L3
CO-2	Aware of the ethical, social, and security issues of information systems	PO1, PO2, PO3	L1,L2,L4
CO-3	Design and Develop web pages through coding using HTML	PO1, PO2, PO7	L1,L2,L3,L4,L6

Mapping COs to POs: Alignment on a Three-Point Scale from Weak to Strong

CO	**PO**							
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	3						
CO2	2	3	1					
CO3	2	3					3	

Course 3C: PROGRAMMING WITH C & C++

COURSE OUTCOMES

CO1: Learn syntax and semantics of programming language and also Ability to work with control statements and arrays.

CO2: Understanding a concept of object thinking within the framework of functional model in C++.

CO3: Planning of structure and content, writing, updating and modifying computer programs for user solutions**.**

CO-PO Mapping

CO. No.	Upon the successful completion of the course, students will be able to	POs Mapped	Cognitive Level
CO-1	Learn syntax and semantics of programming language and also Ability to work with control statements and arrays	PO1, PO2, PO4, PO7	L1,L2,L3,L4,L6
CO-2	Understanding a concept of object thinking within the framework of functional model in C++	PO1, PO2, PO4, PO3, PO7	L1,L2,L3,L4,L6
CO-3	Planning of structure and content, writing, updating and modifying computer programs for user solutions.	PO1, PO2, PO4, PO5, PO7	L1,L2,L3,L4,L6

Mapping COs to POs: Alignment on a Three-Point Scale from Weak to Strong

CO	**PO**							
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	3		3			3	
CO2	2	3	1	3			3	
CO3	2	3		1	2		3	

Course 4F: Data Base Management System

COURSE OUTCOMES

CO-1: Understand the fundamental concepts of DBMS with special emphasis on relational data model

CO-2: Model database using ER Diagrams and design database schemas based on the model.

CO-3: Understand and Create a small database using SQL

CO-4: Understand and design application development in PL/SQL

CO-PO Mapping

CO. No.	Upon the successful completion of the course, students will be able to	POs mapped	Cognitive Level
CO-1	Understand the fundamental concepts of DBMS with special emphasis on relational data model	PO-1	L2
CO-2	Model database using ER Diagrams and design database schemas based on the model.	PO-1, PO-2	L2,L3,L6
CO-3	Understand and Create a small database using SQL	PO-1, PO-2, PO-7,PO-8	L2,L3,L6
CO-4	Understand and design application development in PL/SQL	PO-1, PO-2, PO-7,PO-8	L2,L3,L6

Mapping Cos to POs: Alignment on a Three-Point Scale from Weak(1) to Strong(3)

CO	PO							
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO-1	3							
CO-2	3	3						
CO-3	3	3		1		1	3	3
CO-4	3	3		1		1	3	3

Course 4E: Object Oriented Programming with Java

COURSE OUTCOMES

CO-1: Understand he principles of the object oriented programming paradigm specifically including abstraction, encapsulation, inheritance and polymorphism using Java.

CO-2: Use an object oriented programming language, and associated class libraries, to develop programs using Java

CO-3: Design, develop, test, and debug programs using object oriented principles

CO-PO Mapping

CO. No.	Upon the successful completion of the course, students will be able to	POs mapped	Cognitive Level
CO-1	Understand the principles of the object oriented programming paradigm specifically including abstraction, encapsulation, inheritance and polymorphism using Java.	PO-1	L2
CO-2	Use an object oriented programming language, and associated class libraries to develop programs using Java.	PO-1,PO-2	L3
CO-3	Design, develop, test, and debug programs using object oriented principles.	PO-7,PO-8	L2, L3, L6

Mapping Cos to POs: Alignment on a Three-Point Scale from Weak(1) to Strong(3)

CO	PO							
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO-1	3							
CO-2	3	3						
CO-3		2					3	3

Course-6A: BIG DATA ANALYTICS USING R

COURSE OUTCOMES

CO1: Understand data and classification of digital data.

CO2: Understand Big Data Analytics and learn how to load data into R.

CO3: Organize data in the form of R objects and manipulate them as needed and also perform analytics using R programming.

CO-PO Mapping

CO. No.	**Upon the successful completion of the course, students will be able to**	**POs Mapped**	**Cognitive Level**
CO-1	Understand data and classification of digital data.	PO1,PO2,PO 4,PO7	L1,L2,L3, L4,L6
CO-2	Understand Big Data Analytics and learn how to load data into R.	PO1,PO2,PO 4,PO3,PO7	L1,L2,L3, L4,L6
CO-3	Organize data in the form of R objects and manipulate them as needed and also perform analytics using R programming	PO1,PO2,PO 4,PO,PO7	L1,L2,L3, L4,L6

Mapping COs to POs: Alignment on a Three-Point Scale from Weak to Strong

CO	PO							
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	3		3			3	
CO2	2	3	1	3			3	
CO3	2	3		1			3	

Course-7A: DATA SCIENCE USING PYTHON

COURSE OUTCOMES

CO1: Understand the concept of data science and its significance in various domains.

CO2: Understand why python is a useful scripting language for developers**.**

CO3: Understand aggregated data (list, tuple, and dictionary) and Implement functions and modules.

CO-PO Mapping

CO. No.	**Upon the successful completion of the course, students will be able to**	**POs mapped**	**Cognitive Level**
CO-1	Understand the concept of data science and its significance in various domains.	PO1,PO2	L1, L2, L3, L4
CO-2	Understand why python is a useful scripting language for developers.	PO1,PO2, PO5	L1,L3, L4, L5, L6
CO-3	Understand aggregated data (list, tuple, and dictionary) and Implement functions and modules.	PO1,PO2, PO3, PO5, PO7	L3, L4, L5, L6

Mapping COs to POs: Alignment on a Three-Point Scale from Weak to Strong

CO	**PO**							
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	3						
CO2	2	3			2			
CO3	2	3	1		2		3	