GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS), KUMBAKONAM

B.Sc., Computer Science - Course Structure under CBCS

(For the candidates to be admitted from the year June 2020- 2021 onwards)

SEMESTER= I

Part	Course Type	Course Code	Title of the Course	Hrs/ Week	Credits	Exam Hrs	Marks		
							CIA	ESE	Total
I	LC	U211T1	Tamil	6	3	3	25	75	100
II	ELC	U211E1	English	6	3	3	25	75	100
III	CC= I	U21CSC101	Programming in C	6	5	3	25	75	100
III	CC= II	U21CSC102P	Practical - Programming in C Lab	3	2	3	40	60	100
III	AC - I	U211AM1:CS	Numerical Methods	5	4	3	25	75	100
III	AC -II	U212AM2:CS	Operations Research	2	-	-	-	-	-
IV	AEC	U211VE	Value Education	2	2	3	25	75	100
Total				**30**	**19**				**600**

SEMESTER= II

Part	Course Type	Course Code	Title of the Course	Hrs/ Week	Credits	Exam Hrs	Marks		
							CIA	ESE	Total
I	LC	U212T2	Tamil	6	3	3	25	75	100
II	ELC	U212E2	English	4	3	3	25	75	100
III	CC= III	U21CSC203	Object Oriented Programming with C++	6	5	3	25	75	100
III	CC= IV	U21CSC204P	Practical= Programming in C++ Lab	3	2	3	40	60	100
III	AC -II	U212AM2:CS	Operations Research	2	4	3	40	60	100
III	AC - III	U212AM3:CS	Probability and Statistics	5	4	3	25	75	100
IV	NM	U23NM2LP	Language Proficiency for Employability	2	2	3			100
IV	AEC	U212ES	Environmental Studies	2	2	3	25	75	100
Total				**30**	**23**				**800**

SEMESTER= III

Part	Course Type	Course Code	Title of the Course	Hrs/ Week	Credits	Exam Hrs	Marks		
							CIA	ESE	Total
I	LC	U213T3	Tamil	6	3	3	25	75	100
II	ELC	U213E3	English	6	3	3	25	75	100
III	CC V	U21CSC305	Fundamentals of Data Structures and Algorithms	6	5	3	25	75	100
III	CC VI	U21CSC306P	Practical= Data Structures using C++ Lab	3	2	3	40	60	100
III	AC= IV	U213AAPH1	Applied Physics - I	5	4	3	25	75	100
III	AC- V	U214AAPH2P	Practical - Applied Physics= II (Carry Over)	2	--	--	--	--	--

IV	NMEC= I	U21CS3NME1:1	Fundamentals of Photoshop Lab	2	2	3	40	60	100
		U21CS3NME1:2	Office Automation Lab						
Total				**30**	**19**				**600**
	SSC - I	U213SS1	Mathematics Aptitude for Recruitment Board Examinations	-	2	2	-	100	100

SEMESTER= IV

Part	Course Type	Course Code	Title of the Course	Hrs/ Week	Cre dits	Exam Hrs	Marks		
							CIA	ESE	Total
I	LC	U214T4	Tamil	6	3	3	25	75	100
II	ELC	U214E4	English	6	3	3	25	75	100
III	CC -VII	U21CSC407	Programming in Java	4	4	3	25	75	100
III	CC= VIII	U21CSC408P	Practical= Programming in Java Lab	3	2	3	40	60	100
III	AC - V	U214AAPH2P	Applied Physics Practical=II	2	4	3	40	60	100
III	AC - VI	U214AAPH3	Applied Physics= III	3	3	3	25	75	100
IV	NMEC– II	U21CS4NME2:1	E= Commerce	2	2	3	25	75	100
		U21CS4NME2:2	Internet Programming						
IV	SEC= I	U214CSSE1	Computer Applications in MS Office - Lab	2	2	3	40	60	100
IV	NM	U23NM4DS	Digital Skills for Employability	2	2	3			100
Total				**30**	**25**				**900**
	SSC= II	U214SS2	Social Study for Competitive Examinations	-	2	2	-	100	100

SEMESTER= V

Part	Course Type	Course Code	Title of the Course	Hrs/ Week	Cre dits	Exam Hrs	Marks		
							CIA	ESE	Total
III	CC= IX	U21CSC509	Operating Systems	5	5	3	25	75	100
III	CC= X	U21CSC510	Computer Architecture & Fundamentals of Microprocessor	5	5	3	25	75	100
III	CC= XI	U21CSC511	Data and Computer Communications	5	5	3	25	75	100
III	CC= XII	U21CSC512P	Practical= Microprocessor Lab	6	4	3	40	60	100
III	MBEC= I	U21CS5MBE1:1	Computer Graphics	5	5	3	25	75	100
		U21CS5MBE1:2	Multimedia Systems						
		U21CS5MBE1:3	Digital Image Processing						
IV	SEC= II	U215CSSE2	Fundamentals of Photoshop - Practical	2	2	3	40	60	100
IV	SEC=III	U215CSSE3	Job Interview Skills - Theory	2	2	3	25	75	100
Total				**30**	**28**				**700**

SEMESTER– VI

Part	Course Type	Course Code	Title of the Course	Hrs/ Week	Credits	Exam Hrs	Marks		
							CIA	ESE	Total
III	CC – XIII	U21CSC613	Data Base System Concepts	6	5	3	25	75	100
III	CC– XIV	U21CSC614	PHP Scripting Language	6	5	3	25	75	100
III	CC– XV	U21CSC615P	Practical– Programming in PHP Lab	6	4	3	40	60	100
III	MBEC– II	U21CS6MBE2:1	Software Engineering	5	4	3	25	75	100
		U21CS6MBE2:2	System Analysis Design						
		U21CS6MBE2:3	Software Project Management						
III	MBEC– III	U21CS6MBE3:1	Internet of Things	4	4	3	25	75	100
		U21CS6MBE3:2	Cyber Security						
		U21CS6MBE3:3	Social Computing						
III	NM	U23NM6ET	Emerging Technology for Workplace	2	2	3			100
V	AEC	U216GS	Gender Studies	1	1	3	25	75	100
V		U21EA	Extension Activities	-	1	-	-	-	-
Total				**30**	**26**				**700**

COURSE STRUCTURE ABSTRACT FOR

B.Sc., PROGRAMME 2021-2022 ONWARDS

Part	Course		Total No. of Papers	Hours	Credit	Mark
I	Language Course (LC)		4	24	12	400
II	English Language Course (ELC)		4	24	12	400
III	Core Course (CC)		15	74	61	1500
III	Allied Course (AC)		6	27	24	600
III	Major Based Elective Course (MBEC)		3	16	15	300
IV	Non Major Elective Course (NMEC)		2	4	4	200
IV	Skill Enhancement		3	6	6	300
IV	Ability Enhancement Course (AEC)	Value Education	1	2	2	100
IV		Environmental Studies	1	2	2	100
V		Gender Studies	1	1	1	100
V	Extension Activities		--	0	1	---
Total			**40**	**180**	**140**	
Extra Credit Courses						
Self Study Course (SSC)			2	-	4	200
Total			**42**		**144**	**4200**

GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS) KUMBAKONAM

(Curriculum– M.Sc., COMPUTER SCIENCE– 2021 - 2022)

Department: COMPUTER SCIENCE **Programme Code**: PSCS

Course Type	Course Code	Title of the Course	Hrs/ Week	Credits	Exam Hrs	Marks		
						CIA	ESE	Total
SEMESTER– I								
CC I	P21CSC101	Mathematical Foundations	6	5	3	25	75	100
CC II	P21CSC102	Object Oriented Analysis and Design & Unified Modeling Language	6	5	3	25	75	100
CC III	P21CSC103	Python Programming	6	5	3	25	75	100
CC IV	P21CSC104P	Practical– Python Programming Lab	5	3	3	40	60	100
MBEC- I	P21CS1MBE1:1	Parallel Processing	5	4	3	25	75	100
	P21CS1MBE1:2	Grid Computing						
	P21CS1MBE1:3	Cloud Computing						
SEC– I	P21CS1SE1	Document Preparation System– Latex	2	2	2	25	75	100
Total			**30**	**24**				**600**
SEMESTER– II								
CC V	P21CSC205	Distributed Operating System	5	5	3	25	75	100
CC VI	P21CSC206	Advanced Java Programming	6	5	3	25	75	100
CC VII	P21CSC207	Compiler Design	5	5	3	25	75	100
CCVIII	P21CSC208P	Practical– Advanced Java Programming Lab	5	3	3	40	60	100
MBEC - II	P21CS2MBE2:1	Network Security	5	4	3	25	75	100
	P21CS2MBE2:2	Software Project Management						
	P21CS2MBE2:3	Soft Computing						
EDC	P21CS2ED	1. Cyber Security 2. Fundamentals of Information Technology 3. E-Commerce	2	2	3	25	75	100
SEC - II	P21CS2SE2P	Practical - Document Preparation System– Latex Lab	2	1	2	40	60	100
Total			**30**	**25**				**700**
SSC-I	P212SS1	General Studies for Research Fellowships and Lectureship	-	2	2	-	100	100
NCGPA (Internship)	INT	-		2		-	-	-
SEMESTER– III								
CC– IX	P21CSC309	Advanced Computer Architecture	6	5	3	25	75	100
CC– X	P21CSC310	Data Mining	6	5	3	25	75	100
CC– XI	P21CSC311	Data Analytics	6	5	3	25	75	100
CC– XII	P21CSC312P	Practical– R Programming Lab	6	3	3	40	60	100
MBEC– III	P21CS3MBE3:1	Software Quality Assurance and Testing	6	4	3	25	75	100
	P21CS3MBE3:2	Pervasive Computing						
	P21CS3MBE3:3	Artificial Intelligence						
Total			**30**	**22**				**500**
SSC- II	P21CS3SS2	Computer Science for NET / SET Examinations	-	2	2	-	100	100
SEMESTER– IV								
CC– XIII	P21CSC413	Open Source Technologies	6	6	3	25	75	100
CC– XIV	P21CSC414P	Practical– Open Source Lab	6	3	3	40	60	100

CC= XV (Project)	P21CSPW415	-	12	6	-	-	100	100
MBEC-IV	P21CS4MBE4:1	Deep Learning	6	4	3	25	75	100
	P21CS4MBE4:2	Internet of Things						
	P21CS4MBE4:3	Digital Image Processing						
Total			**30**	**19**				**400**

Course Structure Abstract for

M.Sc., Programme 2021-2022 onwards

Part	Course	Total No of Papers	Hours	Credit	Mark
III	Core Course (CC)	14	80	63	1400
III	Core Project	1	12	6	100
III	Major Based Elective Course - IV (MBEC)	4	22	16	400
III	Extra Disciplinary Course (EDC)	1	2	2	100
III	Skill Enhancement (SEC)	2	4	3	200
Total		**22**	**120**	**90**	**2200**
Extra Credit Courses					
Self Study Course (SSC)		2	-	4	200
NCGPA Course (Internship)		---	-	2	---
Value Added Course		1		2	100
Total		**3**		**98**	**2500**

GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS), KUMBAKONAM

B.Sc., Computer Science - Course Structure under CBCS

(For the candidates to be admitted from the year June 2017- 2018 onwards)

SEMESTER– I

Part	Course Type	Course Code	Title of the Course	Hrs/ Week	Credits	Exam Hrs	Marks		
							CIA	ESE	Total
I	LC	17GT1	Tamil	6	3	3	25	75	100
II	ELC	17GE1	English	6	3	3	25	75	100
III	CC-I	17CSC101	Programming in C	6	4	3	25	75	100
III	CC-II	17CSC102P1	Practical - I- Programming in C Lab	4	3	3	40	60	100
III	AC-I	171AM1:CS	Numerical Methods	5	3	3	25	75	100
III	AC-I	172AM2:CS	Operations Research	3	-	3	-	-	-
				30	**16**				**500**

SEMESTER– II

Part	Course Type	Course Code	Title of the Course	Hrs/ Week	Credits	Exam Hrs	Marks		
							CIA	ESE	Total
I	LC	17GT2	Tamil	6	3	3	25	75	100
II	ELC	17GE2	English	6	3	3	25	75	100
III	CC-III	17CSC203	Object Oriented Programming with C++	5	4	3	25	75	100
III	CC-IV	17CSC204P2	Practical II - Programming in C++ Lab	3	3	3	40	60	100
III	AC-II	172AM2:CS	Operations Research	2	3	3	25	75	100
III	AC-III	172AM3:CS	Probability & Statistics	4	4	3	25	75	100
		18UVE	Value education – yoga	2	2	3	25	75	100
IV	AEC	UGCES	Environmental Studies	2	2	3	25	75	100
				30	**24**				**600**

SEMESTER– III

Part	Course Type	Course Code	Title of the Course	Hrs/ Week	Credits	Exam Hrs	Marks		
							CIA	ESE	Total
I	LC	17GT3	Tamil	6	3	3	25	75	100
II	ELC	17GE3	English	6	3	3	25	75	100
III	CC-V	17CSC305	Fundamentals of Data Structures and Algorithms	6	5	3	25	75	100
III	CC-VI	17CSC306P3	Practical III – Data Structures using C++ lab	3	3	3	40	60	100
III	AC-IV	183AAPH1	Applied Physics-I	5	4	3	25	75	100
III	AC-V	184AAPH2P	Practical –Applied Physics –II (Carry Over)	2	-	-	-	-	-

IV	NMEC	17CS3NMEC1	Fundamentals of Photoshop	2	2	3	25	75	100
			TOTAL	**30**	**20**				**600**

SEMESTER= IV

Part	**Course Type**	**Course Code**	**Title of the Course**	**Hrs/ Week**	**Credits**	**Exam Hrs**	**Marks**		
							CIA	**ESE**	**Total**
I	LC	17GT4	Tamil	6	3	3	25	75	100
II	ELC	17GE4	English	6	3	3	25	75	100
III	CC-VII	17CSC407	Programming in JAVA.	4	4	3	25	75	100
III	CC-VIII	17CSC408P4	Practical IV – Programming in Java Lab	3	3	3	40	60	100
III	AC-V	184AAPH2P	Applied Physics-II Lab	3	3	3	-	-	100
III	AC-VI	183AAPH3	Applied Physics –III	4	3	3	25	75	100
IV	NMEC	17CS4NMEC2	Internet Programming.	2	2	3	25	75	100
IV	SBEC-I	18EL4NMEC2	Inter Personal Skills.	2	2	3	25	75	100
			Total	**30**	**23**				**800**

SEMESTER= V

Part	**Course Type**	**Course Code**	**Title of the Course**	**Hrs/ Week**	**Credits**	**Exam Hrs**	**Marks**		
							CIA	**ESE**	**Total**
III	CC-IX	17CSC509	Operating Systems	6	6	3	25	75	100
III	CC-X	17CSC510	Computer Architecture & Fundamentals of Microprocessor	5	5	3	25	75	100
III	CC- XI	17CSC511	Data and Computer Communications	5	5	3	25	75	100
III	CC-XII	17CSC512P5	Practical V – Microprocessor and Animation lab	5	4	3	40	60	100
III	EC I	17CS5EC3:1	Computer Graphics	5	5	3	25	75	100
		17CS5EC3:2	Multimedia Systems						
		17CS5EC3:3	Digital Image Processing						
IV	SBEC-II	SBEC-2	Office Management	2	2	3	25	75	100
IV	SBEC-III	SBHC	Hardware Concepts	2	2	3	25	75	100
			Total	**30**	**29**				**700**

SEMESTER= VI

Part	Course Type	Course Code	Title of the Course	Hrs/ Week	Credits	Exam Hrs	Marks		
							CIA	ESE	Total
III	CC-XIII	17CSC613	Data Base System Concepts	5	5	3	25	75	100
III	CC-XIV	17CSC614P6	Practical VI – RDBMS Lab	6	5	3	25	75	100
III	CC-XV	17CSC615P7	Practical VII - Programming in PHP Lab	6	5	3	40	60	100
III	EC- II	17CS6EC4:1	PHP Scripting Language	5	5	3	25	75	100
		17CS6EC4:2	Software Testing						
		17CS6EC4:3	E - Commerce						
III	EC- III	17CS6EC5:1	Software Engineering	5	4	3	25	75	100
		17CS6EC5:2	System Analysis and Design						
		17CS6EC5:3	Software Project Management						
III	EC	U23NM6ET	Emerging Technology for Workplace	2	2	3			100
IV			Extension activities	-	1	3	-	-	-
IV		GS	Gender studies	1	1	3	25	75	100
			Total	**30**	**28**				**700**

Total number of Papers = 40
Total number of Hours = 180
Credit = 139

Extension Activities = 1
Marks = 4000

GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS) KUMBAKONAM

M.Sc., Computer Science - Course Structure under CBCS

(For the candidates to be admitted from the year June 2017 - 2018 onwards)

SEMESTER I

Course Type	Course Code	Title of the Course	Hrs/ Week	Credits	Exam Hrs	Marks		
						CIA	ESE	Total
CC I	P17CSC101	Mathematical Foundations	6	4	3	25	75	100
CC II	P17CSC102	Object Oriented Analysis and Design & Unified Modeling Language	6	4	3	25	75	100
CC III	P17CSC103	Advanced Java Programming	6	4	3	25	75	100
CC IV	P17CSC104	Distributed Operating System	6	4	3	25	75	100
CC V	P17CSC104P1	Advanced Java Programming Lab	6	4	3	40	60	100
		TOTAL	**30**	**20**		**-**	**-**	**500**

SEMESTER II

Course Type	Course Code	Title of the Course	Hrs/ Week	Credits	Exam Hrs	Marks		
						CIA	ESE	Total
CC VI	P17CSC206	Microprocessors and Microcontrollers	5	4	3	25	75	100
CC VII	P17CSC207	Compiler Design	5	4	3	25	75	100
CC VIII	P17CSC208	Programming in C# and .NET Framework	5	4	3	25	75	100
CC IX	P17CSC209P2	Programming in .Net Lab	5	4	3	40	60	100
EC- I		Any one from the given list	5	4	3	25	75	100
EC -II		Any one from the given list	5	4	3	25	75	100
		TOTAL	**30**	**24**				**600**

SEMESTER III

Course Type	Course Code	Title of the Course	Hrs/ Week	Credits	Exam Hrs	Marks		
						CIA	ESE	Total
CC X	P17CSC310	Data Mining	5	4	3	25	75	100
CC XI	P17CSC311	Web Technology	5	4	3	25	75	100
CC XII	P17CSC312P3	Open Source Lab	5	4	3	25	75	100
CC XIII	P17CSC313P4	Web Technology Lab	5	4	3	40	60	100
EC -III		Any one from the given list	5	4	3	25	75	100
EC -IV		Any one from the given list	5	4	3	25	75	100
		TOTAL	**30**	**24**				**600**

SEMESTER IV

Course Type	Course Code	Title of the Course	Hrs/ Week	Credits	Exam Hrs	Marks		
						CIA	ESE	Total
CC XIV	P17CSC410	Advanced Computer Architecture	5	4	3	25	75	100
EC -V	P17CSPW411	Any one from the given list	5	4	3	25	75	100
		Major Project Dissertation = 100 Marks [2 reviews = 20+20 marks Report Valuation = 40 marks] Viva = 20 Marks	20	14	3	-	-	100
		TOTAL	**30**	**22**				300
		GRAND TOTAL	**-**	**90**		**-**		**2000**

Total Hours : 120 **Credits : 90** **Marks : 2000**

Recommended credits distribution: (Total should not be less than 90 credits)

Course Type	Course	Credits	Total Credits
Core (Theory)	10	4	40
Core (Practical)	4	4	16
Core(Major Project)	1	14	14
Elective	5	4	20
Total	**20**		**90**

List of Elective Courses (For 2017 - 2018)

Elective	Course code	Title of the Paper
I	P17CSCEC1:1	Mobile Communications
	P17CSCEC1:2	Soft Computing
	P17CSCEC1:3	Bio Informatics
II	P17CSCEC2:1	Network Security
	P17CSCEC2:2	Software Project Management
	P17CSCEC2:3	Genetic Algorithms
III	P17CS3EC3:1	Cloud Computing
	P17CS3EC3:2	Grid Computing
	P17CS3EC3:3	Digital Image Processing
IV	P17CS3EC4:1	Open Source Technologies

	P17CS3EC4:2	Artificial Neural Networks
	P17CS3EC4:3	Robotics
V	17CS3EC5:1	Software Quality Assurance and Testing
	17CS3EC5:2	Pervasive Computing
	17CS3EC5:3	Pattern Recognition