

GOA UNIVERSITY
SECOND/THIRD YEAR OF BACHELOR'S DEGREE COURSE IN INFORMATION
TECHNOLOGY ENGINEERING
SCHEME OF INSTRUCTION AND EXAMINATION
SEMISTER III

Sub Code	Subject	Scheme of Instruction Hrs/Week			Scheme Of Examination					
		L	T	P	Th.Dur (Hrs)	Marks				
						Th.	S	P	O	Total
IT 3.1	Applied Mathematics III	3	1	0	3	100	25	-	-	125
IT 3.2	Numerical Methods	3	0	2	3	100	25*	-	-	125
IT 3.3	Analog & Digital Circuits	3	1	2	3	100	25*	-	-	125
IT 3.4	Computer Organization & Architecture	3	1	2	3	100	25*	-	-	125
IT 3.5	Data Structures using C	3	1	2	3	100	25*	50	-	175
IT 3.6	System Analysis & Design	3	1	2	3	100	25*	50	-	175
TOTAL		18	05	10	-	600	150	100	-	850

*20 Marks for Internal Tests and 5 marks for internal practical test

SEMISTER IV

Sub Code	Subject	Scheme of Instruction Hrs/Week			Scheme Of Examination					
		L	T	P	Th.Dur (Hrs)	Marks				
						Th.	S	P	O	Total
IT 4.1	Discrete Mathematical Structures	3	1	0	3	100	25	-	-	125
IT 4.2	Signals & Systems	3	1	0	3	100	25	-	-	125
IT 4.3	Computer Hardware & Troubleshooting	3	1	2	3	100	25*	-	-	125
IT 4.4	Microprocessors & Interfacing	3	1	2	3	100	25*	50	-	175
IT 4.5	Design & Analysis of Algorithms	3	1	2	3	100	25*	-	-	125
IT 4.6	Object Oriented Programming System	3	1	2	3	100	25*	50	-	175
TOTAL		18	06	08	-	600	150	100	-	850

*20 Marks for Internal Tests and 5 marks for internal practical test

L-lecture, T: Tutorials, P-Practical

Th.Dur: Duration of the Paper

Th: Theory, S: Sessional, P: Practical, O: Oral

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SEMISTER V

Sub Code	Subject	Scheme of Instruction Hrs/Week			Scheme Of Examination					
		L	T	P	Th.D ur (Hrs)	Marks				
						Th.	S	P	O	Total
IT 5.1	Introduction to Data Communication	3	1	0	3	100	25	-	-	125
IT 5.2	Digital Signal Processing	3	1	0	3	100	25	-	-	125
IT 5.3	Software Engineering	3	1	2	3	100	25*	-	-	125
IT 5.4	Intelligent Agents	3	1	2	3	100	25*	-	-	125
IT 5.5	Operating Systems	3	1	2	3	100	25*	50	-	175
IT 5.6	Database Management Systems	3	1	2	3	100	25*	50	-	175
TOTAL		18	06	08	-	600	150	100	-	850

*20 Marks for Internal Tests and 5 marks for internal practical test

SEMISTER VI

Sub Code	Subject	Scheme of Instruction Hrs/Week			Scheme Of Examination					
		L	T	P	Th.D ur (Hrs)	Marks				
						Th.	S	P	O	Total
IT 6.1	Entrepreneurship Development	3	0	0	3	100	25	-	-	125
IT 6.2	Theory of Computation	3	0	2	3	100	25	-	-	125
IT 6.3	Computer Networks	3	1	2	3	100	25*	-	-	125
IT 6.4	Computer Graphics	3	1	2	3	100	25*	50	-	175
IT 6.5	Web Technology	3	1	2	3	100	25*	50	-	175
IT 6.6	Software Testing & Quality Assurance	3	1	2	3	100	25*	-	-	125
TOTAL		18	04	10	-	600	150	100	-	850

*20 Marks for Internal Tests and 5 marks for internal practical test

L-lecture, T: Tutorials, P-Practical

Th.Dur: Duration of the Paper

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SEMISTER VII

Sub Code	Subject	Scheme of Instruction Hrs/Week			Scheme Of Examination					
		L	T	P	Th.D ur (Hrs)	Marks				
						Th.	S	P	O	Total
IT 7.1	Distributed Systems	3	1	2	3	100	25*	-	25	150
IT 7.2	Principles of Compilers	3	1	2	3	100	25*	-	25	150
IT 7.3	Mobile Computing	3	1	2	3	100	25*	-	50	175
IT 7.4	Elective I	3	1	2	3	100	25*	-	50	175
IT 7.5	Elective II	3	1	0	3	100	25	-	-	125
IT 7.6	Project	-	-	4	-	-	25	-	50#	75
TOTAL		15	05	12	-	500	150	-	200	850

*20 marks for Internal Tests and 5 marks for internal practical test

Seminar & Oral

Electives: A student must take one Elective From each Group.

Group I: Subject for IT 7.4

- a) Data Mining & warehousing
- b) Genetic Algorithms
- c) Bio Informatics
- d) E-Commerce

Group II: Subject for IT 7.5

- a) Geographical Information System
- b) Cyber laws & Computer Forensic
- c) Financial Engineering
- d) IT Business Methodology

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SEMISTER VIII

Sub Code	Subject	Scheme of Instruction Hrs/Week			Scheme Of Examination					
		L	T	P	Th.D ur (Hrs)	Marks				
						Th.	S	P	O	Total
IT 8.1	Image processing & Pattern Recognition	3	1	2	3	100	25	-	50	175
IT 8.2	Computer Cryptography and Network Security	3	1	2	3	100	25	-	50	175
IT 8.3	Elective III	3	1	2	3	100	25	-	50	175
IT 8.4	Elective IV	3	1	2	3	100	25	-	50	175
IT 8.5	Project	-	-	8	-	-	50	-	100#	150
TOTAL		12	04	16	-	400	150	50	300	850

*20 marks for Internal Tests and 5 marks for internal practical test

#Seminar, demonstration & Oral

Electives: A student must take one Elective From each Group.

Group III: Subject for IT 8.3

- a) Web Services
- b) Operation Research
- c) Design Patterns & Frameworks
- d) Fuzzy Logic and Neural Networks

Group VI: Subject for IT 8.5

- a) VLSI Design
- b) Embedded System Design
- c) System Performance & Evaluation
- d) Advanced Computer Architecture