

GOA UNIVERSITY

SECOND YEAR OF BACHELOR'S DEGREE COURSE IN INFORMATION TECHNOLOGY

SCHEME OF INSTRUCTION AND EXMINATION (Revised in 2007-08)

SEMESTER III

| Sub Code | Subjects | 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 | 20 + 5 | - | - | 125 |
| IT 3.3 | Analog & Digital Circuits | 3 | 1 | 2 | 3 | 100 | 20 + 5 | - | - | 125 |
| IT 3.4 | Computer Organization & Architecture | 3 | 1 | 2 | 3 | 100 | 20 + 5 | - | - | 125 |
| IT 3.5 | Data Structures using C | 3 | 1 | 2 | 3 | 100 | 20 + 5 | 50 | - | 175 |
| IT 3.6 | System Analysis & Design | 3 | 1 | 2 | 3 | 100 | 20 + 5 | 50 | - | 175 |
| | TOTAL | 18 | 05 | 10 | - | 600 | 150 | 100 | - | 850 |

L- Lectures, T- Tutorials, P- Practicals

Th-.Dur.- Duration of Theory paper, Th-Theory, S-Sessional, P- Practicals, O-Oral.

25 Sessional marks will be split as follows: 20 marks are for the Internal Test,

5 marks are for continuous evaluation of Practicals/Assignments

SEMESTER IV

| Sub Code | Subjects | 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 | 20 + 5 | - | - | 125 |
| IT 4.2 | Signals & Systems | 3 | 1 | 0 | 3 | 100 | 20 + 5 | - | - | 125 |
| IT 4.3 | Computer Hardware & Troubleshooting | 3 | 1 | 2 | 3 | 100 | 20 + 5 | - | - | 125 |
| IT 4.4 | Microprocessors & Interfacing | 3 | 1 | 2 | 3 | 100 | 20 + 5 | 50 | - | 175 |
| IT 4.5 | Design & Analysis of Algorithms | 3 | 1 | 2 | 3 | 100 | 20 + 5 | - | - | 125 |
| IT 4.6 | Object Oriented Programming System | 3 | 1 | 2 | 3 | 100 | 20 + 5 | 50 | - | 175 |
| | TOTAL | 18 | 06 | 08 | - | 600 | 150 | 100 | - | 850 |

L- Lectures, T- Tutorials, P- Practicals

Th.-Dur.- Duration of Theory paper, Th-Theory, S-Sessional, P- Practicals, O-Oral.

25 Sessional marks will be split as follows: 20 marks are for the Internal Test,

5 marks are for continuous evaluation of Practicals/Assignments

GOA UNIVERSITY

THIRD YEAR OF BACHELOR'S DEGREE COURSE IN INFORMATION TECHNOLOGY

SCHEME OF INSTRUCTION AND EXMINATION (Revised in 2007-08)

SEMESTER V

| Sub Code | Subjects | Scheme of Instruction Hrs/Week | | | Scheme of Examination | | | | | |
|----------|------------------------------------|-----------------------------------|----|----|-----------------------|-------|--------|-----|---|-------|
| | | L | T | P | Th. Dur (Hrs) | Marks | | | | |
| | | | | | | Th. | S | P | O | Total |
| IT 5.1 | Introduction to Data Communication | 3 | 1 | 0 | 3 | 100 | 20 + 5 | - | - | 125 |
| IT 5.2 | Digital Signal Processing | 3 | 1 | 0 | 3 | 100 | 20 + 5 | - | - | 125 |
| IT 5.3 | Software Engineering | 3 | 1 | 2 | 3 | 100 | 20 + 5 | - | - | 125 |
| IT 5.4 | Intelligent Agents | 3 | 1 | 2 | 3 | 100 | 20 + 5 | - | - | 125 |
| IT 5.5 | Operating Systems | 3 | 1 | 2 | 3 | 100 | 20 + 5 | 50 | - | 175 |
| IT 5.6 | Database Management Systems | 3 | 1 | 2 | 3 | 100 | 20 + 5 | 50 | - | 175 |
| | TOTAL | 18 | 06 | 08 | - | 600 | 150 | 100 | - | 850 |

L- Lectures, T- Tutorials, P- Practicals,

Th-.Dur.- Duration of Theory paper, Th-Theory, S-Sessional, O-Oral.

25 Sessional marks will be split as follows: 20 marks are for the Internal Test,

5 marks are for continuous evaluation of Practicals/Assignments

SEMESTER VI

| Sub Code | Subjects | Scheme of Instruction Hrs/Week | | | Scheme of Examination | | | | | |
|----------|--------------------------------------|-----------------------------------|----|----|-----------------------|-------|--------|-----|---|-------|
| | | L | T | P | Th. Dur (Hrs) | Marks | | | | |
| | | | | | | Th. | S | P | O | Total |
| IT 6.1 | Entrepreneurship Development | 3 | 0 | 0 | 3 | 100 | 20 + 5 | - | - | 125 |
| IT 6.2 | Theory of Computation | 3 | 0 | 2 | 3 | 100 | 20 + 5 | - | - | 125 |
| IT 6.3 | Computer Networks | 3 | 1 | 2 | 3 | 100 | 20 + 5 | - | - | 125 |
| IT 6.4 | Computer Graphics | 3 | 1 | 2 | 3 | 100 | 20 + 5 | 50 | - | 175 |
| IT 6.5 | Web Technology | 3 | 1 | 2 | 3 | 100 | 20 + 5 | 50 | - | 175 |
| IT 6.6 | Software Testing & Quality Assurance | 3 | 1 | 2 | 3 | 100 | 20 + 5 | - | - | 125 |
| | TOTAL | 18 | 04 | 10 | - | 600 | 150 | 100 | - | 850 |

L- Lectures, T- Tutorials, P- Practicals,

Th-.Dur.- Duration of Theory paper, Th-Theory, S-Sessional, O-Oral.

25 Sessional marks will be split as follows: 20 marks are for the Internal Test,

5 marks are for continuous evaluation of Practicals/Assignments

GOA UNIVERSITY

FINAL YEAR OF BACHELOR'S DEGREE COURSE IN INFORMATION TECHNOLOGY

SCHEME OF INSTRUCTION AND EXMINATION

SEMESTER VII

| Sub Code | Subjects | Scheme of Instruction Hrs/Week | | | Scheme of Examination | | | | | |
|----------|-------------------------|-----------------------------------|----|----|-----------------------|-------|--------|---|-----|-------|
| | | L | T | P | Th. Dur (Hrs) | Marks | | | | |
| | | | | | | Th. | S | P | O | Total |
| IT 7.1 | Distributed Systems | 3 | 1 | 2 | 3 | 100 | 20 + 5 | - | 50 | 175 |
| IT 7.2 | Principles of Compilers | 3 | 1 | 2 | 3 | 100 | 20 + 5 | - | 50 | 175 |
| IT 7.3 | Mobile Computing | 3 | 1 | 2 | 3 | 100 | 20 + 5 | - | - | 125 |
| IT 7.4 | Elective I | 3 | 1 | 2 | 3 | 100 | 20 + 5 | - | 50 | 175 |
| IT 7.5 | Elective II | 3 | 1 | 0 | 3 | 100 | 20 + 5 | - | - | 125 |
| IT 7.6 | Project | - | - | 4 | - | - | 25 | - | 50# | 75 |
| | TOTAL | 15 | 05 | 12 | - | 500 | 150 | - | 200 | 850 |

25 Sessional marks will be split as follows: 20 marks are for the Internal Test,

5 marks are for continuous evaluation of Practicals/Assignments

Seminar and Oral

Electives: A student must take One Elective from each Group.

Group I: Subjects for IT 7.4

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

Group II: Subjects for IT 7.5

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

SEMESTER VIII

| Sub Code | Subjects | Scheme of Instruction | | | Scheme of Examination | | | | | |
|----------|--|-----------------------|----|----|-----------------------|-------|--------|---------------|-----|-------|
| | | L | T | P | Th. Dur (Hrs) | Marks | | | | |
| | | | | | | Th. | S | Pract/ Report | O | Total |
| IT 8.1 | Image processing & Pattern Recognition | 3 | 1 | 2 | 3 | 100 | 20 + 5 | - | 50 | 175 |
| IT 8.2 | Computer Cryptography and Network Security | 3 | 1 | 2 | 3 | 100 | 20 + 5 | - | 50 | 175 |
| IT 8.3 | Elective III | 3 | 1 | 2 | 3 | 100 | 20 + 5 | | 50 | 175 |
| IT 8.4 | Elective IV | 3 | 1 | 2 | 3 | 100 | 20 + 5 | - | 50 | 175 |
| IT 8.5 | Project | - | - | 8 | - | - | 50 | 50 | 50# | 150 |
| | TOTAL | 12 | 04 | 16 | - | 400 | 150 | 50 | 250 | 850 |

25 Sessional marks will be split as follows: 20 marks are for the Internal Test,

5 marks are for continuous evaluation of Practicals/Assignments

Demonstration & Oral

Electives: A student must take One Elective from each Group.

Group III: Subjects for IT 8.3

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

Group VI: Subjects for IT 8.4

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