



स्वामी रामानंद तीर्थ
मराठवाडा विद्यापीठ, नांदेड

॥ सा विद्या या विमुक्तये ॥
स्वामी रामानंद तीर्थ मराठवाडा विद्यापीठ, नांदेड

'ज्ञानतीर्थ', विष्णुपुरी, नांदेड - ४३१ ६०६ (महाराष्ट्र राज्य) भारत

SWAMI RAMANAND TEERTH MARATHWADA UNIVERSITY, NANDED

'Dnyanteerth', Vishnupuri, Nanded - 431 606 (Maharashtra State) INDIA

Established on 17th September, 1994. Recognized By the UGC U/s 2(f) and 12(B). NAAC Re-accredited with 'B++' grade

Fax : (02462) 215572

Academic-1 (BOS) Section

website: srtmun.ac.in

Phone: (02462)215542

E-mail: bos@srtmun.ac.in

विज्ञान व तंत्रज्ञान विद्याशाखे अंतर्गत राष्ट्रीय
शैक्षणिक धोरण २०२० नुसार पदवी प्रथम
वर्षाचे अभ्यासक्रम (Syllabus) शैक्षणिक
वर्ष २०२४-२५ पासून लागू करण्याबाबत.

प रि प त्र क

या परिपत्रकान्वये सर्व संबंधितांना कळविण्यात येते की, या विद्यापीठा अंतर्गत येणा-या सर्व संलग्नित महाविद्यालयामध्ये शैक्षणिक वर्ष २०२४-२५ पासून पदवीस्तरावर राष्ट्रीय शैक्षणिक धोरण -२०२० लागू करण्याच्या दृष्टीकोनातून विज्ञान व तंत्रज्ञान विद्याशाखे अंतर्गत येणा-या अभ्यासमंडळांनी तयार केलेल्या पदवी प्रथम वर्षाचे अभ्यासक्रमांना मा. विद्यापरिषदेने दिनांक १५ मे २०२४ रोजी संपन्न झालेल्या बैठकीतील विषय क्रमांक १५/५९-२०२४ च्या ठरावाअन्वये मान्यता प्रदान केली आहे. त्यानुसार विज्ञान व तंत्रज्ञान विद्याशाखेतील खालील वी. एस्सी प्रथम वर्षाचे अभ्यासक्रम (Syllabus) लागू करण्यात येत आहेत.

- 1) B. Sc. I year – Computer Science
- 2) B. Sc. I year – Computer Application
- 3) B. Sc. I year – Information Technology
- 4) B. Sc. I year – Computer Maintainance
- 5) B. Sc. I year – Computer Science (Single Major)
- 6) B. Sc. I year - Computer Network Technology (Single Major)
- 7) B. Sc. I year - Software Engineering (Single Major)
- 8) B. Sc. I year - Information Technology (Single Major)
- 9) B. Sc. I year - Computer Management (Single Major)

सदरील परिपत्रक व अभ्यासक्रम प्रस्तुत विद्यापीठाच्या www.srtmun.ac.in या संकेतस्थळावर उपलब्ध आहेत. तरी सदरील बाब ही सर्व संबंधितांच्या निदर्शनास आणून द्यावी, ही विनंती.

'ज्ञानतीर्थ' परिसर,

विष्णुपुरी, नांदेड - ४३१ ६०६.

जा.क्र.:शै-१/एनइपी/विवत्रविपदवी/२०२४-२५/१५४

दिनांक १६.०७.२०२४

C.P.M.S.

डॉ. सरिता लोसगवार

सहा.कुलसचिव

शैक्षणिक (१-अभ्यासमंडळ) विभाग

- प्रत : १) मा. आधिष्ठाता, विज्ञान व तंत्रज्ञान विद्याशाखा, प्रस्तुत विद्यापीठ.
२) मा. संचालक, परीक्षा व मुल्यमापन मंडळ, प्रस्तुत विद्यापीठ.
३) मा. प्राचार्य, सर्व संबंधित संलग्नित महाविद्यालये, प्रस्तुत विद्यापीठ.
४) मा. संचालक, सर्व संकुले परिसर व उपपरिसर, प्रस्तुत विद्यापीठ
५) मा. प्राचार्य, न्यू मॉडल डिग्री कॉलेज हिंगोली.
६) सिस्टीम एक्सपर्ट, शैक्षणिक विभाग, प्रस्तुत विद्यापीठ. याना देवून कळविण्यात येते की, सदर परिपत्रक संकेतस्थळावर प्रसिध्द करण्यात यावे.

**SWAMI RAMANAND TEERTH
MARATHWADA UNIVERSITY,
NANDED - 431 606 (MS)**



**(Credit Framework and Structure of
B.Sc. Software Engineering (Single Major)
First Year
with Multiple Entry and Exit Options as per NEP-2020)**

**UNDERGRADUATE PROGRAMME OF
SCIENCE & TECHNOLOGY**

Major in **DSC** and Minor in **DSM** (Software Engineering)

Under the Faculty of Science & Technology



Swami Ramanand Teerth Marathwada University, Nanded
Faculty of Science and Technology (Three Optional in the First Year)

**Credit Framework for Four Year Multidisciplinary Degree Program
 with Multiple Entry and Exit**

Subject: **SFE** (Major) /**DSM** (Minor 1 and Minor 2)

B. Sc. Software Engineering (Single Major) First Year

Eligibility: 12th Science

Year & Level	Semester	Optional 1 (Major) <i>(From the same Faculty)</i>	Optional 2 (Minor 1) <i>(From the same Faculty)</i>	Optional 3 (Minor 2) <i>(From the same Faculty)</i>	Generic Elective (GE) <i>(select from Basket 3 of Faculties other than Science and Technology)</i>	Vocational & Skill Enhancement Course	Ability Enhancement Course (AEC) (Basket 4) Value Education Courses (VEC) / Indian Knowledge System (IKS) (Basket 5) <i>(Common across all faculties)</i>	Field Work / Project/Internship/ OJT/ Apprenticeship / Case Study Or Co-curricular Courses (CCC) (Basket 6 for CCC) <i>(Common across all faculties)</i>	Credits	Total Credits
1	2	3	4	5	6	7	8	9	10	11
1 (4.5)	I	SSFECT1101 (T 2Cr) SSFEC1101 (P 2Cr) 4 Credits	SSFEMT1101 (T 2Cr) SSFEMP1101 (P 2Cr) 4 Credits	SSFEMT1102 (T 2Cr) SSFEMP1102 (P 2Cr) 4 Credits	SSFEGE1101 2 Credits	SSFESC1101 2 Credits	AECENG1101 (2Cr) ACEMIL1101 (2Cr) IKSXXX1101 (2Cr) 6 Credits		22	44
	II	SSFECT1151 (T 2Cr) SSFEC1151 (P 2Cr) 4 Credits	SSFEMT1151 (T 2Cr) SSFEMP1151 (P 2Cr) 4 Credits	SSFEMT1152 (T 2Cr) SSFEC1152 (P 2Cr) 4 Credits	SSFEGE1151 2 Credits	SSFESC1151 2 Credits	AECENG1151 (2Cr) ACEMIL1151 (2Cr) VECCOI1151 (2Cr) <i>Constitution of India</i> 6 Credits		22	
	Cum. Cr.	08	08	08	04	04	08	04	44	

Abbreviations:

- 1. DSC:** Department/Discipline Specific Core (Major)
- 2. DSE:** Department/Discipline Specific Elective (Major)
- 3. DSM:** Discipline Specific Minor
- 4. GE/OE:** Generic/Open Elective
- 5. VSEC:** Vocational Skill and Skill Enhancement Course
- 6. VSC:** Vocational Skill Courses
- 7. SEC:** Skill Enhancement Courses
- 8. AEC:** Ability Enhancement courses
- 9. MIL:** Modern Indian languages
- 10.IKS:** Indian Knowledge System
- 11.VEC:** Value Education Courses
- 12.OJT:** On Job Training: (Internship/Apprenticeship)
- 13.FP:** Field Projects
- 14.CEP:** Community Engagement and Service
- 15.CC:** Co-Curricular Courses
- 16.RM:** Research Methodology
- 17.RP:** Research Project/Dissertation
- 18.SFE –**Software Engineering



B. Sc. Software Engineering First Year Semester I (Level 4.5)

Teaching Scheme

	Course Code	Course Name	Credits Assigned			Teaching Scheme (Hrs/ week)	
			Theory	Practical	Total	Theory	Practical
Optional 1	SSFECT1101	Logic Building with C Part-I	02	--	04	02	--
	SSFECPI101	Logic Building with C Part-I (P)	-	02			04
Optional 2	SSFEMT1101	Web Technology	02	--	04	02	--
	SSFEMP1101	Web Technology (P)	-	02			04
Optional 3	SSFEMT1102	Office Automation	02	--	04	02	--
	SSFEMP1102	Office Automation (P)	-	02			04
Generic Electives <i>(from other Faculty)</i>	SSFEGE1101	Basics of Computer Science / Intellectual Property Rights Basket 3	02	--	02	02	--
Skill Based Course <i>(related to Major)</i>	SSFESC1101	Hardware and Networking	--	02	02	--	04
Ability Enhancement Course	AECENG1101	L1 – Compulsory English	02	--	02	02	--
Indian Knowledge System (IKS)	IKSXXX1101	Select from Basket 5	02	--	02	02	--
Ability Enhancement Course (MIL)	ACEMIL1101		02	--	02	02	--
Total Credits			14	08	22	14	16



B. Sc. Software Engineering First Year Semester I (Level 4.5)

Examination Scheme

[20% Continuous Assessment (CA) and 80% End Semester Assessment (ESA)]

(For illustration we have considered a paper of 02 credits, 50 marks, need to be modified depending on credits assigned to individual paper)

Subject (1)	Course Code (2)	Course Name (3)	Theory				Practical		Total Col (6+7) / Col (8+9) (10)
			Continuous Assessment (CA)			ESA	CA (8)	ESA (9)	
			Test I (4)	Test II (5)	Average of T1 & T2 (6)	Total (7)			
Optional 1	SSFECT1101	Logic Building with C Part-I	10	10	10	40	--	--	50
	SSFEC1101	Logic Building with C Part-I (P)	--	--	--	--	20	30	50
Optional 2	SSFEMT1101	Web Technology	10	10	10	40	--	--	50
	SSFEMP1101	Web Technology (P)	--	--	--	--	20	30	50
Optional 3	SSFEMT1102	Office Automation	10	10	10	40	--	--	50
	SSFEMP1102	Office Automation (P)	--	--	--	--	20	30	50
Generic Elective	SSFEGE1101	Basics of Computer Science / Intellectual Property Rights Basket 3	10	10	10	40	--	--	50
Skill Based Course	SSFESC1101	Hardware and Networking	--	--	--	--	20	30	50
Ability Enhancement Course	AECENG1101	L1 – Compulsory English	10	10	10	40	--	--	50
Indian Knowledge System	IKSXXX1101	Select from Basket 5	10	10	10	40	--	--	50
Ability Enhancement Course (MIL)	ACEMIL1101		10	10	10	40	--	--	50



B. Sc. Software Engineering First Year Semester II (Level 4.5)

Teaching Scheme

	Course Code	Course Name	Credits Assigned			Teaching Scheme (Hrs/ week)	
			Theory	Practical	Total	Theory	Practical
Optional 1	SSFECT1151	Introduction to RDBMS	02	--	04	02	--
	SSFEC1151	Introduction to RDBMS (P)	-	02			04
Optional 2	SSFEMT1151	Programming in C Part-II	02	--	04	02	--
	SSFEMP1151	Programming in C Part-II(P)	-	02			04
Optional 3	SSFEMT1152	Data Structure & Algorithms	02	--	04	02	--
	SSFEMP1152	Data Structure & Algorithms (P)	-	02			04
Generic Electives (from other Faculty)	SSFEGE1151	Numerical Ability / Organizational Behaviour Basket 3	02	--	02	02	--
Skill Based Course (related to Major)	SSFESC1151	Cascading Style Sheet and Bootstrap	--	02	02	--	04
Ability Enhancement Course	AECENG1151	L1 – Compulsory English	02	--	02	02	--
Value Education Courses (VEC)	IKSXXX1151	Select from Basket 5	02	--	02	02	--
Ability Enhancement Course (MIL)	ACEMIL1151		02	--	02	02	--
Total Credits			14	08	14	08	22



B. Sc. First Year Semester II (Level 4.5)

Examination Scheme

[20% Continuous Assessment (CA) and 80% End Semester Assessment (ESA)]

(For illustration we have considered a paper of 02 credits, 50 marks, need to be modified depending on credits assigned to individual paper)

Subject (1)	Course Code (2)	Course Name (3)	Theory				Practical		Total Col (6+7) / Col (8+9) (10)
			Continuous Assessment (CA)			ESA	CA (8)	ESA (9)	
			Test I (4)	Test II (5)	Average of T1 & T2 (6)	Total (7)			
Optional 1	SSFECT1151	Introduction to RDBMS	10	10	10	40	--	--	50
	SSFEC1151	Introduction to RDBMS (P)	--	--	--	--	20	30	50
Optional 2	SSFEMT1151	Programming in C Part-II	10	10	10	40	--	--	50
	SSFEMP1151	Programming in C Part-II(P)	--	--	--	--	20	30	50
Optional 3	SSFEMT1152	Data Structure & Algorithms	10	10	10	40	--	--	50
	SSFEMP1152	Data Structure & Algorithms (P)	--	--	--	--	20	30	50
Generic Elective	SSFEGE1151	Numerical Ability / Organizational Behaviour Basket 3	10	10	10	40	--	--	50
Skill Based Course	SSFESC1151	Cascading Style Sheet and Bootstrap	--	--	--	--	20	30	50
Ability Enhancement Course	AECENG1151	L1 – Compulsory English	10	10	10	40	--	--	50
Value Education Courses (VEC)	IKSXXX1151	Select from Basket 5	10	10	10	40	--	--	50
Ability Enhancement Course (MIL)	ACEMIL1151		10	10	10	40	--	--	50

Course Structure: Major 1 -Teaching Scheme

Course Code	Course Name (Paper Title)	Teaching Scheme(Hrs.)		Credits Assigned		
		Theory	Practical	Theory	Practical	Total
SSFECT1101	Logic Building with C Part-I	02	--	02	--	02

Major 1 -Assessment Scheme

Course Code (2)	Course Name (3)	Theory				Practical		Total [Col (6+7) or Col (8+9)] (10)
		CA			ESA (7)	CA (8)	ESA (9)	
		Test I (4)	Test II (5)	Avg. of T1 & T2 (6)				
SSFECT1101	Logic Building with C Part-I	10	10	10	40	--	--	50

SSFECT1101: Logic Building with C Part-I (Major 1) Curriculum Details

Course pre-requisite:

1. Basic knowledge of computers

Course Objectives:

To Learn:

- The general purpose and procedure oriented programming language. In which we are able to develop OS and MAC operation
- Basic knowledge of computers
- Application software and programming languages.
- To build students logic for programming.

Course Outcomes:

Students will be able to:

- Create a function, storage classes, structure, union, string and functions, Pointers, File Handling.
- Develop application software.

Curriculum Details:*(There shall be FOUR Modules in each course)*

Module No.	Unit no.	Topic	Hrs. Required to cover the contents
1.0		Programming languages	
	1.1	Machine language	5
	1.2	Assembly language	
	1.3	High level languages	
	1.4	Compilers and Interpreters	
2.0		Introduction to Programming in C	
	2.1	History	10
	2.2	Application Areas	
	2.3	Algorithms	
	2.4	Flowcharts	
	2.5	Structure of a C program	
	2.6	C Token	
		6.1 Keywords	
		6.2 Variables	
		6.3 Primary Data types	
		6.4 Operators	
	2.7	Formatted I/O Statement	
	2.8	Unformatted I/O Statement	
3.0		Controlling Statement	
	3.1	Decision Making Statement	10
		1.1 If Statement	
		1.2 If- else Statement	
		1.3 Nested if –else Statement	
		1.4 Else if Ladder Statement	
		1.5 Switch Statement	
	3.2	Loop Statement	
		2.1 For Loop	
		2.2 While Loop	
		2.3 Do-while Loop	

		2.4 Nested for Loop	
	3.3	Break, goto and Continue	
4.0		Array and Structure	
	4.1	Arrays	5
	4.2	Array declaration, initialization	
	4.3	One dimensional Array	
	4.4	Two dimensional Array	
	4.5	Passing arrays to functions	
		Total	30

Reference Books:

1. Complete C Reference – Herbert Schildt (Thomson learning publications)
2. The C Programming language – Kernighan and Ritchie
3. Structured Programming approach using C – Forouzan and Gilberg, 4. Pointer in ‘C’ Kanetkar Yashavant P. (BPB Publication)

Course Structure: *Major 1 -Teaching Scheme*

Course Code	Course Name (Paper Title)	Teaching Scheme(Hrs.)		Credits Assigned		
		Theory	Practical	Theory	Practical	Total
SSFEC1101	Logic Building with C Part-I (practical)	--	02	--	02	02

Major 1 -Assessment Scheme

Course Code (2)	Course Name (3)	Theory				Practical		Total [Col (6+7) or Col (8+9)] (10)
		CA			ESA (7)	CA (8)	ESA (9)	
		Test I (4)	Test II (5)	Avg. of T1 & T2 (6)				
SSFEC1101	Logic Building with C Part-I (practical)	--	--	--	--	30	20	50

SSFEC1101: Logic Building with C Part-I (*practical*) (*Major 1*)

Note - Conduct 15 practical's on given contents

Course Structure: *Minor 1 -Teaching Scheme*

Course Code	Course Name (Paper Title)	Teaching Scheme(Hrs.)		Credits Assigned		
		Theory	Practical	Theory	Practical	Total
SSFEMT1101	Web Technology	02	--	02	--	02

Minor 1 -Assessment Scheme

Course Code (2)	Course Name (3)	Theory				Practical		Total [Col (6+7) or Col (8+9)] (10)
		CA			ESA (7)	CA (8)	ESA (9)	
		Test I (4)	Test II (5)	Avg. of T1 & T2 (6)				
SSFEMT1101	Web Technology	10	10	40	10	--	--	50

SSFEMT1101: *Web Technology (Minor 1) Curriculum Details*

Course pre-requisite:

1. Should have knowledge about computer.
2. Should know internet.

Course Objectives:

To Learn:

- The skill to create the static web page.
- The ability to create the dynamic web pages.
- The ability of Insert a graphic within a web page.
- The skills to Create, validate and publish a web page.

Course Outcomes:

Students will be able to:

- Design and implement dynamic websites
- Implement new html 5 tags.

Curriculum Details:*(There shall be FOUR Modules in each course)*

Module No.	Unit No.	Topic	Hrs. Required to cover the contents
1.0		Introduction of Web	7
	1.1	History of WWW.	

	1.2	Role of Web browser and web Server.	
	1.3	Client side Programming	
	1.4	IDE applications of HTML.	
	1.5	Web Protocols HTTP, FTP	
2.0		Introduction of HTML	
	2.1	Structure of HTML	8
	2.2	What is Tags & attributes of HTML	
	2.3	Create web page using Headings ,Paragraph, BR & HR	
	2.4	Image Tag	
	2.5	Marquee Tag	
3.0		Core Concepts of HTML	
	3.1	Creating Ordered & Unordered List	8
	3.2	Creating Anchor Tag	
	3.3	Using frame in HTML	
	3.4	Creating Table in HTML	
	3.5	Creating Form Input and validation	
4.0		HTML 5	
	4.1	Introduction to HTML 5	7
	4.2	Advantage and Disadvantages	
	4.3	Elements in HTML 5	
		Total	30

Reference Books:

1. HTML The complete Reference -2nd Edition Thomas A. Powel Tata McGraw Hill publication
2. The complete Reference (HTML & XHTML)- 5th Edition Thomas A. Powel Tata McGraw Hill publication

Course Structure: *Minor 1 -Teaching Scheme*

Course Code	Course Name (Paper Title)	Teaching Scheme(Hrs.)		Credits Assigned		
		Theory	Practical	Theory	Practical	Total
SSFEMP1101	Web Technology (P)	--	02	--	02	02

Minor 1 -Assessment Scheme

Course Code (2)	Course Name (3)	Theory				Practical		Total [Col (6+7) or Col (8+9)] (10)
		CA			ESA (7)	CA (8)	ESA (9)	
		Test I (4)	Test II (5)	Avg. of T1 & T2 (6)				
SSFEMP1101	Web Technology (P)	--	--	--	--	30	20	50

SSFEMP1101: Web Technology (*practical*) (*Minor 1*)

Note - Conduct 15 practical's on given contents

Course Structure: *Minor 2 -Teaching Scheme*

Course Code	Course Name (Paper Title)	Teaching Scheme(Hrs.)		Credits Assigned		
		Theory	Practical	Theory	Practical	Total
SSFEMT1102	Office Automation	02	--	02	--	02

Minor 2 -Assessment Scheme

Course Code (2)	Course Name (3)	Theory				Practical		Total [Col (6+7) or Col (8+9)] (10)
		CA			ESA (7)	CA (8)	ESA (9)	
		Test I (4)	Test II (5)	Avg. of T1 & T2 (6)				
SSFEMT1102	Office Automation	10	10	10	40	--	--	50

SSFEMT1102: *Office Automation (Minor 2) Curriculum Details*

Course pre-requisite:

1. Basic knowledge of computers

Course Objectives:

To Learn:

- The existing system and upgrade the existing system by increasing its efficiency and effectiveness.
- How to simplify the task and reduce the paper work means the software improves the working methods by replacing the existing manual system with the computer-based system.

Course Outcomes:

Students will be able to:

- Understand the computer software, hardware, made available to simplify and automate a variety of office operations such as data processing, data manipulating and data presentation with various application those are presents in Microsoft office tools packages.

Curriculum Details:*(There shall be FOUR Modules in each course)*

Module No.	Unit No.	Topic	Hrs. Required to cover the contents
1.0		Introduction to MS-Word.	8
	1.1	Word 2010 Basics: - Opening screen of MS-word	
	1.2	Home menu- font tab	
	1.3	Paragraph tab	
	1.4	Styles tab	
	1.5	Editing options in MS-Word	
	1.6	Insert menu- table tool	
	1.7	Header and Footer tool	
	1.8	Mail-merge	
	1.9	Custom dictionary	
	1.10	Printing in MS-Word	
	1.11	Creating Index in MS-Word.	
2.0		Working with MS-Excel.	8
	2.1	Formatting columns	
	2.2	Row height	
	2.3	Merging	
	2.4	Splitting columns and connecting the worksheets	
	2.5	Working with Formulas and Functions	
	2.6	Creating charts	
	2.7	Goal seek	

	2.8	Data validation	
	2.9	Conditional Formatting	
3.0		Working with Microsoft power point.	7
	3.1	Opening Screen of MS PowerPoint	
	3.2	Creating a new presentation based on template	
	3.3	Design template and blank presentation	
	3.4	Slide Transition	
	3.5	Custom Animation effects	
	3.6	Slide show	
	3.7	Adding audio and video on slides.	
4.0		Introduction to MS-Access.	
	4.1	Opening screen of MS-Access	
	4.2	Advantages and disadvantages of MSAccess	
	4.3	Performing Queries	7
	4.4	Generating the report	
	4.5	Creating the database in Access	
	4.6	Creating forms and adding new records in MS-Access	
		Total	30

Reference Books:

1. MS-DOS 6.22 , Russell A, BPB Publications

Course Structure: Minor 2 -Teaching Scheme

Course Code	Course Name (Paper Title)	Teaching Scheme(Hrs.)		Credits Assigned		
		Theory	Practical	Theory	Practical	Total
SSFEMP1102	Office Automation (practical)	--	02	--	02	02

Minor 2 -Assessment Scheme

Course Code (2)	Course Name (3)	Theory				Practical		Total [Col (6+7) or Col (8+9)] (10)
		CA			ESA (7)	CA (8)	ESA (9)	
		Test I (4)	Test II (5)	Avg. of T1 & T2 (6)				
SSFEMP1102	Office Automation (P)	--	--	--	--	30	20	50

SSFEMP1102: Office Automation (*practical*) (*Minor 2*)

Note - Conduct 15 practical's on given contents

Course Structure: *Generic Elective-Teaching Scheme*

Course Code	Course Name (Paper Title)	Teaching Scheme(Hrs.)		Credits Assigned		
		Theory	Practical	Theory	Practical	Total
SSFEGE1101	Basics of Computer Science	02	--	02	--	02

Generic Elective -Assessment Scheme

Course Code (2)	Course Name (3)	Theory				Practical		Total [Col (6+7) or Col (8+9)] (10)
		CA			ESA (7)	CA (8)	ESA (9)	
		Test I (4)	Test II (5)	Avg. of T1 & T2 (6)				
SSFEGE1101	Basics of Computer Science	10	10	10	40	--	--	50

SSFEGE1101: *Basics of Computer Science (GE) Curriculum Details*

Course pre-requisite:

1. Basic knowledge of computers

Course Objectives:

To Learn:

- The basic principles of computer.
- The importing basic level of Computer.

Course Outcomes:

Students will be able to:

- To Understand the Basic Function of Devices like I/O, HDD etc.
- To Understand the Fundamental of Software and Hardware.
- To Understand the Concept of Operating System and Network.

Curriculum Details:*(There shall be FOUR Modules in each course)*

Module No.	Unit No.	Topic	Hrs. Required to cover the contents
1.0		Introduction to Computer and History	7
	1.1	Definition of Computer	
	1.2	Basic Computer Organization	
	1.3	Characteristics of Computer	
	1.4	Generations of Computer	
	1.5	Types of Computer: - Microcomputer, Minicomputer, Mainframe Computer, Workstations, Client and Server	
2.0		Computer Peripherals & Memory	5
	2.1	Input Devices :- Keyboard, Mouse, Trackball, Joystick, Light pen	
	2.2	Output Devices :- Monitor, Printer, Projector, Biometric Devices	
	2.3	Computer Memory :- RAM, ROM, Cache Memory	
3.0		Storage Devices and Operating System	10
	3.1	Compact Disk, Digital Versatile Disk	
	3.2	Hard Disk Drive	
	3.3	USB Flash Drive	
	3.4	Memory Card	
	3.5	Definition of operating System	
	3.6	Types of Operating System	

	3.7	Disk Operating System	
	3.8	Windows Operating System	
	3.9	Linux Operating System	
4.0		Introduction to Computer Network & Internet	
	4.1	Definition of Network	
	4.2	Types of Network :- LAN,MAN,WAN	
	4.3	Data Transmission Modes	
	4.4	OSI Model	8
	4.5	E-Mail	
	4.6	File Transfer Protocol	
	4.7	Web Browser	
	4.8	Types of Web Browser	
		Total	30

Reference Books:

1. Fundamental of Computer –5th& 6th Edition, P.K.Sinha, BPB Publication
2. Fundamental of Computer - V. Raja Raman, PHI Publication

Course Code	Course Name (Paper Title)	Teaching Scheme(Hrs.)		Credits Assigned		
		Theory	Practical	Theory	Practical	Total
SSFEGE1101	Intellectual Property Rights	02	--	02	--	02

Course Structure: *Generic Elective -Teaching Scheme*

Generic Elective -Assessment Scheme

Course Code (2)	Course Name (3)	Theory				Practical		Total [Col (6+7) or Col (8+9)] (10)
		CA			ESA (7)	CA (8)	ESA (9)	
		Test I (4)	Test II (5)	Avg. of T1 & T2 (6)				
SSFEGE1101	Intellectual Property Rights	10	10	10	40	--	--	50

SSFEGE1101: *Intellectual Property Rights (GE) Curriculum Details*

Course pre-requisite:

1. Basic understanding of Intellectual Properties, Patents, Trademarks, Copyrights and designs

Course Objectives:

To Learn:

- The students aware of their rights for the protection of their invention done in their project work.
- To get registration in our country and foreign countries of their invention, designs and thesis or theory
- To identify the different types of IPR's.

Course Outcomes:

Students will be able to:

- Get awareness of acquiring the patent
- Have the copyright for their innovative works.
- Get the knowledge of plagiarism in their innovations which can be questioned legally.

Curriculum Details:*(There shall be FOUR Modules in each course)*

Module No.	Unit No.	Topic	Hrs. Required to cover the contents
1.0		Introduction to IPR	8
	1.1	Meaning of property	
	1.2	Origin, Nature, Meaning of Intellectual Property Rights	
	1.3	Kinds of Intellectual property rights	
2.0		Patent Rights and Copy Rights	7
	2.1	Origin, Meaning of Patent	
	2.2	Types, Inventions which are not patentable	
	2.3	Registration Procedure	
	2.4	Rights and Duties of Patentee	
3.0		Copy Rights and Trade Mark	8
	3.1	Definition &Types of Copy Right	
	3.2	Registration procedure	
	3.3	Meaning & Nature of Trade Marks	
	3.4	Types, Registration of Trade Marks	

Course Code	4.0	Design				Credits Assigned	
	4.1	Definition, Object, Registration of Design					
	4.2	Cancellation of Registration					
	4.3	International convention on design					
	(Paper Title)	Embodiment of Design	Teaching Scheme (Hrs.)				
			Theory	Practical	Theory	Practical	Total
SSFESC1101	Computer Hardware & Networking	--	02	--	02	02	02

Reference Books:

1. Intellectual Property Rights and the Law, Gogia Law Agency, by Dr. G.B. Reddy
2. Law relating to Intellectual Property, Universal Law Publishing Co, by Dr. B.L.Wadehra
3. IPR by P. Narayanan
4. Law of Intellectual Property, Asian Law House, Dr.S.R. Myneni.

Course Structure: *Skill Based Course-Teaching Scheme*

Skill Based Course-Assessment Scheme

Course Code (2)	Course Name (3)	Theory				Practical		Total [Col (6+7) or Col (8+9)] (10)
		CA			ESA (7)	CA (8)	ESA (9)	
		Test I (4)	Test II (5)	Avg. of T1 & T2 (6)				
SSFESC1101	Computer Hardware & Networking	--	--	--	--	20	30	50

SSFESC1101: Computer Hardware & Networking (Skill Based Course)

Curriculum Details

Course pre-requisite:

1. Basic knowledge of computer.
2. Basic knowledge of Hardware & Networking

Course Objectives:

- To understand the basic Concepts of Computer Hardware and peripheral parts
- To understanding different tools of Computer Networking.
- To understanding different Computer Networking devices.

Course Outcomes:

- Get knowledge of computer hardware components.
- Get knowledge of different Computer Networking devices.
- Get knowledge Computer Networking commands and cables.

Curriculum Details:*(There shall be FOUR Modules in each course)*

SR No.	Practical List
1.	Study of different types of DOS Commands
2.	Study of Administrative tools in Windows OS
3.	Study of assigning IP addresses.
4.	Connect the computers in Local Area Network.
5.	Study of basic network command and Network configuration Commands
6.	Implementing Shared folder and assigning its permissions
7.	Configuring a Default Route
8.	Sharing the Printer on network
9.	Troubles shoot Networks.

10.	Recognition and use of various types of connectors RJ-45, RJ-11, BNC and SCST.
-----	--

Course Structure: Major 1 -Teaching Scheme

Course Code	Course Name (Paper Title)	Teaching Scheme(Hrs.)		Credits Assigned		
		Theory	Practical	Theory	Practical	Total
SSFECT1151	Introduction to RDBMS	02	--	02	--	02

Major 1 -Assessment Scheme

Course Code (2)	Course Name (3)	Theory				Practical		Total [Col (6+7) or Col (8+9)] (10)
		CA			ESA (7)	CA (8)	ESA (9)	
		Test I (4)	Test II (5)	Avg. of T1 & T2 (6)				
SSFECT1151	Introduction to RDBMS	10	10	10	40	--	--	50

SSFECT1151: Introduction to RDBMS (Major 1) Curriculum Details

Course pre-requisite:

1. Basic knowledge about DBMS

Course Objectives:

To Learn:

- The features of Relational database.
- The use SQL- the standard language of relational databases for database operations.
- The functional dependencies and design of the databases.

Course Outcomes:

Students will be able to:

- Understand the basic concepts of relational databases
- Understand the use of Structured Query Language (SQL) and learn SQL syntax for writing queries.
- Apply normalization techniques to normalize the databases.

Curriculum Details:*(There shall be FOUR Modules in each course)*

Module No.	Unit No.	Topic	Hrs. Required to cover the contents
1.0		Introduction to DBMS	
	1.1	Introduction to DBMS and Purpose of Database Systems,	7
	1.2	Database-System Applications, Data Abstraction and Database System Structure	
	1.3	Structure of relational databases, Domains, Relations	
	1.4	Keys – Super key, Candidate key, Primary key, Foreign key	
	1.5	Relational algebra	
	1.6	Basic Concepts of ER model	
	1.7	Entity Set, Relationship Sets and Weak Entity Sets	
	1.8	Mapping Cardinalities, E-R diagrams, Extended E-R Features	
2.0		Relational Database Design	
	2.1	CODD's Rules	8
	2.2	Relational Integrity: Domain, Referential Integrities, Enterprise Constraints	
	2.3	Features of Good Relational Designs	
	2.4	Normalization, Atomic Domains and First Normal Form	
	2.5	Decomposition using Functional Dependencies	
	2.6	2NF, 3NF, and BCNF	
3.0		Basics of SQL	
	3.1	DDL, DML, DCL, Structure: Creation, Alteration	10
	3.2	Defining constraints – Primary key, Foreign key, Unique key, Not null, Check	
	3.3	IN operator,	

	3.4	Functions - Aggregate Functions, Built-in Functions – Numeric, Date, String Functions	
	3.5	Set operations, sub-queries, correlated sub queries	
	3.6	Use of group by, having, order by	
	3.7	Join and its types	
	3.8	Exist, Any, All	
	3.9	View and its types	
4.0		Transaction control commands and PL/SQL Concepts	
	4.1	Commit, Rollback, Save-point	
	4.2	Cursors	
	4.3	Stored Procedures	
	4.4	Stored Function	
	4.5	Database Triggers	
		Total	30

Reference Books:

1. A. Silberschatz, H.F. Korth and S. Sudarshan , —Database System Concepts, McGraw Hill, 6th Edition.
2. C.J. Date, A. Kannan, S. Swamynathan —An introduction to Database Systems, Pearson, 8th Edition
3. “Oracle Database 10g PL/SQL Programming” by Scott Urman , Ron Hardman, MichaleMc Laughlin, Oracle Press, TMH, ISBN-0-07-059779-0.
4. “Oracle Database 10g The Complete Reference” By Kevin Loney, Bob Bryla
5. Oracle SQL, PL/SQL the programming language of ORACLE 4th Edition by Ivan Bayross.

Course Structure: Major 1 -Teaching Scheme

Course Code	Course Name (Paper Title)	Teaching Scheme(Hrs.)		Credits Assigned		
		Theory	Practical	Theory	Practical	Total
SSFEC1151	Introduction to RDBMS (practical)	--	02	--	02	02

Major 1 -Assessment Scheme

Course Code (2)	Course Name (3)	Theory				Practical		Total [Col (6+7) or Col (8+9)] (10)
		CA			ESA (7)	CA (8)	ESA (9)	
		Test I (4)	Test II (5)	Avg. of T1 & T2 (6)				
SSFEC1151	Introduction to RDBMS (practical)	--	--	--	--	30	20	50

SSFEC1151: Introduction to RDBMS (*practical*) (*Major 1*)

Note - Conduct 15 practical's on given contents

Course Structure: *Minor 1 -Teaching Scheme*

Course Code	Course Name (Paper Title)	Teaching Scheme(Hrs.)		Credits Assigned		
		Theory	Practical	Theory	Practical	Total
SSFEMT1151	Programming in C Part-II	02	--	02	--	02

Minor 1 -Assessment Scheme

Course Code (2)	Course Name (3)	Theory				Practical		Total [Col (6+7) or Col (8+9)] (10)
		CA			ESA (7)	CA (8)	ESA (9)	
		Test I (4)	Test II (5)	Avg. of T1 & T2 (6)				
SSFEMT1151	Programming in C Part-II	10	10	10	40	--	--	50

SSFEMT1151: *Programming in C Part-II (Minor 1) Curriculum Details*

Course pre-requisite:

1. Basic knowledge of computers

Course Objectives:

To Learn:

- The general purpose and procedure oriented programming language.
- To develop OS and MAC operating system, application software and programming languages.
- To build students logic for programming.

Course Outcomes:

Students will be able to:

- Create a function, storage classes, structure, union, string and functions, Pointers, File Handling,
- Develop application software.

Curriculum Details:*(There shall be FOUR Modules in each course)*

Module No.	Unit No.	Topic	Hrs. Required to cover the contents
1.0		Function in C	
	1.1	Functions in C	8
	1.2	What is a function?	
	1.3	User defined functions	
		3.1 Declaration	
		3.2 Definition	
		3.3 Function calling	
	1.4	Types of Function	
	1.5	Standard String library functions	
	1.6	Storage Classes	
2.0		Pointers	
	2.1	What is Pointer? Pointer declaration, initialization	8
	2.2	Dereferencing pointers	
	2.3	Pointer to pointer	
	2.4	Arrays and pointers	
	2.5	Functions and pointers	
	2.6	Pointer to function	
	2.7	Dynamic memory allocation	
	2.8	Command Line Arguments	
3.0		Structures and Unions	
	3.1	Creating structures	7
	3.2	Accessing structure members (dot Operator)	

	3.3	Array of structures	
	3.4	Nested structures	
	3.5	Pointers and structures	
	3.6	Unions	
4.0		File Handling	
	4.1	What is File?	7
	4.2	Creating File	
	4.3	Types of File	
	4.4	Operation on File	
	4.5	Random Access to File	
		Total	30

Reference Books:

1. Complete C Reference – Herbert Schildt (Thomson learning publications)
2. The C Programming language – Kernighan and Ritchie
3. Structured Programming approach using C – Forouzan and Gilberg,
4. Pointer in ‘C’ Kanetkar Yashavant P. (BPB Publication)

Course Structure: *Minor 1 -Teaching Scheme*

Course Code	Course Name (Paper Title)	Teaching Scheme(Hrs.)		Credits Assigned		
		Theory	Practical	Theory	Practical	Total
SSFEMP1151	Programming in C Part-II (practical)	--	02	--	02	02

Minor 1 -Assessment Scheme

Course Code (2)	Course Name (3)	Theory				Practical		Total [Col (6+7) or Col (8+9)] (10)
		CA			ESA (7)	CA (8)	ESA (9)	
		Test I (4)	Test II (5)	Avg. of T1 & T2 (6)				
SSFEMP1151	Programming in C Part-II (practical)	--	- -	--	--	30	20	50

SSFEMP1151: Programming in C Part- *II (practical) (Minor 1)*

Note - Conduct 15 practical's on given contents

Course Structure: *Minor 2 -Teaching Scheme*

Course Code	Course Name (Paper Title)	Teaching Scheme(Hrs.)		Credits Assigned		
		Theory	Practical	Theory	Practical	Total
SSFEMT1152	Data Structure & Algorithms	02	--	02	--	02

Minor 2 -Assessment Scheme

Course Code (2)	Course Name (3)	Theory				Practical		Total [Col (6+7) or Col (8+9)] (10)
		CA			ESA (7)	CA (8)	ESA (9)	
		Test I (4)	Test II (5)	Avg. of T1 & T2 (6)				
SSFEMT1152	Data Structure & Algorithms	10	10	10	40	--	--	50

SSFEMT1152: *Data Structure & Algorithms (Minor 2) Curriculum Details*

Course pre-requisite:

Basic knowledge of computers

Course Objectives:

To Learn:

- The data structures paper helps the students to have the practical understanding of the subject.

Course Outcomes:

Students will be able to:

- Create and use various data structures like Strings, Arrays, Linked Lists, and Trees.

Curriculum Details:(There shall be FOUR Modules in each course)

Module No.	Unit No.	Topic	Hrs. Required to cover the contents
1.0		Introduction	
	1.1	Basic technology; elementary data organization	8
	1.2	Data structure	
	1.3	Data structure operations	
	1.4	Complexity, time space tradeoff	
	1.5	Linear array	
	1.6	Representation of linear array in memory	
	1.7	Traversing linear array	
	1.8	Searching methods (Binary and linear search)	
2.0		Sorting and Linked list	
	2.1	Selection sort	8
	2.2	Bubble sort	
	2.3	Insertion sort	
	2.4	Introduction to Linked list	
	2.5	Representation of Linked list in memory	
	2.6	Searching a linked list	
	2.7	Memory allocation, Garbage collection	
	2.8	Insertion and deletion in linked list	
3.0		Stacks, Queues, Recursion	
	3.1	Stacks	7
	3.2	Array representation of stacks	
	3.3	Operations on Stacks.	
	3.4	Arithmetic expression	
	3.5	Queues	
	3.6	Queues operations	
	3.7	Priority queue	
4.0		Tree	
	4.1	Binary tree	7
	4.2	Terminology of Binary tree	
	4.3	Types of Binary tree	
	4.4	Traversing of binary tree	
	4.5	General tree	
		Total	30

Reference Books:

1. Data Structure by Seymour Lipschutz MC GRAWHILL
2. Data Structures And Algorithms Concepts, Techniques And Applications G.A.V. Pai

Course Structure: *Minor 2 -Teaching Scheme*

Course Code	Course Name (Paper Title)	Teaching Scheme(Hrs.)		Credits Assigned		
		Theory	Practical	Theory	Practical	Total
SSFEMP1152	Data Structure & Algorithms (practical)	--	02	--	02	02

Minor 2 -Assessment Scheme

Course Code (2)	Course Name (3)	Theory				Practical		Total [Col (6+7) or Col (8+9)] (10)
		CA			ESA (7)	CA (8)	ESA (9)	
		Test I (4)	Test II (5)	Avg. of T1 & T2 (6)				
SSFEMP1152	Data Structure & Algorithms (practical)	--	--	--	--	30	20	50

SSFEMP1152: Data Structure through C (*practical*) (*Minor 2*)

Note - Conduct 15 practical's on given contents

Course Structure: *Generic Electives -Teaching Scheme*

Course Code	Course Name (Paper Title)	Teaching Scheme(Hrs.)		Credits Assigned		
		Theory	Practical	Theory	Practical	Total
SSFEGE1151	Numerical Ability	02	--	02	--	02

Generic Electives -Assessment Scheme

Course Code (2)	Course Name (3)	Theory				Practical		Total [Col (6+7) or Col (8+9)] (10)
		CA			ESA (7)	CA (8)	ESA (9)	
		Test I (4)	Test II (5)	Avg. of T1 & T2 (6)				
SSFEGE1151	Numerical Ability	10	10	10	40	--	--	50

SSFEGE1151: Numerical Ability (GE) Curriculum Details

Course pre-requisite:

1. Basic knowledge of computers

Course Objectives:

To Learn:

- The problem solving skills, to improve the basic mathematical skills and to help students who are preparing for any type of campus placements and competitive examinations.

Course Outcomes:

Students will be able to:

- Solve mathematical problems using analytical methods
- Solve mathematical problems using computational methods
- Develop design and analyses numerical techniques to approximate solutions to problems.

Curriculum Details:*(There shall be FOUR Modules in each course)*

Module No.	Unit No.	Topic	Hrs. Required to cover the contents
1.0		Introduction of Number system	8
	1.1	Numbers	
		a. Types of numbers	
		b. Divisibility tests of numbers	
		c. Formulas for sum of natural numbers	
		d. arithmetic progression	
	e. Examples for practice		
	1.2	HCF and LCM	

		a. Methods of calculating highest common factor and greatest common divisor	
		b. factorization method, Division method	
		c. Finding HCF and LCM more than two numbers	
		d. LCM factorization method	
		e. Division method	
		f. Finding HCF and LCM more than two numbers	
		g. LCM and HCF of fractions and decimal numbers	
		h. Applications of LCM and HCF.	
2.0		Average & Problem on ages	
	2.1	Average	8
		a. Definition of average	
	b. Formulae and theoretical problem on average.		
	2.2	Problem on ages	
		a. simultaneous equations and their applications	
		b. Theoretical problems on ages	
		c. Theoretical problems on numbers.	
3.0		Percentage, Profit & Loss	
	3.1	Percentage	
		a. Concept of percentage	
	b. Application of percentage		
	c. Results on populations		
	d. Result on depreciations,		
	e. Theoretical problem on percentage		
	3.2	Profit and Loss	
		a. Definition of cost price	
		b. selling price and profit,	
		c. Formulae of profit and loss	
	d. Theoretical problems on profit and loss.		
4.0		Time-Speed-Distance, Problems on Trains	7
	4.1	Time and Distance	
		Concept of time and distance	
		Formulae of time and distance	
		Theoretical problems on time and distance	
	4.2	Problems on Train	

		Formulae of problems on train	
		Theoretical problems on train	
		Total	30

Reference Books:

1. Quantitative Aptitude by Dr.R.SAggrawal , S. Chand and Company Publications
2. Quantitative Aptitude by AbijitGuha, Tata McGraw Hill Publication

Course Structure: *Generic Electives -Teaching Scheme*

Course Code	Course Name (Paper Title)	Teaching Scheme (Hrs.)		Credits Assigned		
		Theory	Practical	Theory	Practical	Total
SSFE1151	Organizational Behaviour	02	--	02	--	02

Generic Electives -Assessment Scheme

Course Code (2)	Course Name (3)	Theory		Practical	Total [Col (6+7) or
		CA	ESA (7)		

		Test I (4)	Test II (5)	Avg of T1 & T2 (6)		CA (8)	ESA (9)	Col (8+9) (10)
SSFE	GE1151	10	10	10	40	--	--	50

SSFEGE1151: *Organizational Behavior (GE) Curriculum Details*

Course pre-requisite:

1. Basic knowledge of computers

Course Objectives:

To Learn:

- How familiarize students with students with the basic concepts of organizational behaviour and to enhance their understanding the interaction of individual in the organization.

Course Outcomes:

Students will be able to:

- Become more self-aware and will have identifies areas of development for long term effectiveness.
- Understand the role individuals play collectively to perform in the organization.

Curriculum Details:*(There shall be FOUR Modules in each course)*

Module No.	Unit No.	Topic	Hrs. Required to cover the contents
1.0		Introduction of Organizational Behavior	5

	1.1	Understanding OB	
	1.2	Nature	
	1.3	Scope	
	1.4	Models	
	1.5	Significance of OB	
	1.6	Emerging challenges in organizational Behavior.	
2.0		Individual Behaviour & Motivation	
	2.1	Individual Behaviour	
	2.2	Factors determining an Individual Behaviour	
	2.3	Personality	
	2.4	Determinant of Personality	
	2.5	Traits of Personality	
	2.6	Concept of Perception	
	2.7	Attitude and Values	
	2.8	Components of attitude	10
	2.9	Motivation-Meaning	
	2.10	Importance of Motivation	
	2.11	Theories on Motivation	
	2.12	Maslow Theory	
	2.13	Herzberg theory	
	2.14	McGregor theory	
	2.15	McClelland theory.	
3.0		Group Behaviour & Leadership	
	3.1	Group Behaviour-Nature of groups	
	3.2	Group Development	10
	3.3	Types	
	3.4	Determinants of group behaviour	
	3.5	Group Decision Making.	
	3.6	Leadership- Meaning	
	3.7	Importance of Leadership	

	3.8	Types of Leadership style	
	3.9	Qualities of good leader	
	3.10	Theories – contingency theory	
	3.11	Situational theory, Behavioural theory	
	3.12	Trait theory	
	3.13	Contemporary trends in Leadership.	
4.0		Work Stress	5
	4.1	Meaning	
	4.2	Types of stress	
	4.3	Consequences of work stress	
	4.4	Causes of stress	
	4.5	Strategies for Managing work Stress	
		Total	30

Reference Books:

1. 'Organizational Behaviour' by K. Aswathappa. 13th Edition, Himalaya Publishing House.
2. 'Organizational Behaviour' by Luthans F, 7th Edition, McGraw Hill.
3. 'Essential of Organizational behaviour' by Robbins S. J., Text N.D.
4. 'Organizational behaviour' by John Schermerhorn & John Wiley, John Wiley & Sons.

Course Code	Course Name (Paper Title)	Teaching Scheme(Hrs.)		Credits Assigned		
		Theory	Practical	Theory	Practical	Total
SSFESC1151	Cascading Style Sheet and Bootstrap	--	04	--	04	04

Course Structure: Skill Based Course -Teaching Scheme

Major 1 -Assessment Scheme

Course Code (2)	Course Name (3)	Theory				Practical		Total [Col (6+7) or Col (8+9)] (10)
		CA			ESA (7)	CA (8)	ESA (9)	
		Test I (4)	Test II (5)	Avg. of T1 & T2 (6)				
SSFESC1151	Cascading Style Sheet and Bootstrap	--	--	--	--	02	30	50

SSFESC1151: *Cascading Style Sheet and Bootstrap (Major 1) Curriculum Details*

Course pre-requisite:

- Basic concept of web designing.
- Basics understanding of HTML tags.

Course Objectives:

To Learn:

- How to use Cascading Style Sheets (CSS) to style web pages.
- The basic to advanced styling techniques and prepare students for careers in web design and front-end development.
- Structuring text and image content for the web using HTML5, learning semantic markup, creating hyperlinks, Learning the box model for basic layout, and Making web pages accessible and well-formed.

Course Outcomes:

Student will able to:

- Use the Cascading Style Sheet (CSS) and Web designing.
- Present data using CSS

Curriculum Details:

SR No.	Practical List
1.	WAP on inline CSS
2.	WAP on embedded CSS
3.	WAP on External CSS
4.	WAP on Applying CSS Properties
5.	WAP on Working with Lists using CSS
6.	WAP on Working with Tables using CSS
7.	WAP on CSS Selectors: Class and ID
8.	WAP on Applying Style with border-radius, text-shadow and box-shadow
9.	WAP on Applying CSS Display and Floating
10.	WAP on Creating table with bootstrap classes

Guidelines for the Course Assessment:

A. Continuous Assessment (CA) (20% of the Maximum Marks) of theory and practical courses:

- i. **For Theory Course:** CA shall form 20% of the Maximum Marks and shall be carried out over the entire semester. It shall be done by conducting **Two Tests** (Test I on 40% curriculum) and **Test II** (on remaining 40% syllabus) and average of the marks scored by a student in these two tests of a particular paper shall be taken as the **CA** score.
- ii. **For Practical Course:** CA score of the practical course shall be marks scored by a student in the internal practical examination conducted by the concerned teacher.

B. End Semester Assessment (80% of the Maximum Marks) of theory and practical courses:

(For illustration a paper of 02 credits, 50 marks has been considered and shall be modified appropriately depending upon credits of the individual paper)

Question Paper Pattern of the ESA:

- i. **ESA Question paper shall consist 6 questions, each of 10 marks**
- ii. **Question No.1 shall be compulsory and shall be based on the entire syllabus**
- iii. Students shall have to solve **ANY THREE** of the remaining Five Questions (i.e. from question 2 to 6)
- iv. **Students shall have to solve a TOTAL of 4 Questions.**

C. Assessment of On Job Training (OJT) Course (for 04 credits):

- a. Continuous assessment part (**40%, 40 marks out of 100**) of this course shall be done by the mentor of the student, where he /she is supposed to complete his On Job Training. This shall be based on the regularity, participation and performance of the students at the place of OJT.
- b. Semester End Assessment (ESA) (**60% of the total marks, 60 marks out of 100**) of this course shall be done by a panel of examiners in two parts
 - i. based on the work report submitted by the student (**50% i.e. 30 marks**) and
 - ii. **Remaining 50%** (30 marks) shall be based on his presentation and viva-voce on the work carried to be assessed by the panel of examiners. This assessment shall be done along with practical examinations of respective courses / subjects.

D. Assessment of Field Project (FP) and Research Project (RP) (e.g. for 02 credits)

- a. Continuous assessment part (**40%, 20 marks out of 50**) of this course shall be done by the mentor of the student and shall be based on regularity, experimental work and performance of the student.
- b. Semester End Assessment (ESA) (**60% of the total marks, 30 marks out of 50**) of this course shall be done shall be done by a panel of examiners in two parts
 - i. based on the work report submitted by the student (**50% i.e. 30 marks**) and
 - ii. **Remaining 50%** (30 marks) shall be based on his presentation and viva-voce on the work carried out by the student. This assessment shall be done along with practical examinations of the respective courses / subjects.

E. Assessment of Co-Curricular courses (CCC):

- a. Assessment of the CCC course shall be done by the respective course coordinator as a part of CA and be based on the regularity, performance of a student and his participation in various activities as prescribed in the regulations prepared in this regard.
- b. The End Semester Assessment (ESA) of the CCC courses shall be done as per the regulations prepared in this regard and shall be done on the basis of the write-up, presentation by the student on the activities that he has carried out in a semester.
- c. Students shall have freedom to opt for more than one CCC courses. However, score of the best performing CC shall be considered for preparing his result.

F. Syllabi, Teaching and Examination Scheme for the courses in Column 7 and Column 8 (AEC, VEC, IKS, CI, EVS, CCCs, etc.) shall be common for all the students from different faculties.

Note: Number of lectures required to cover syllabus of a course depends on the number of credits assigned to a particular course. One credit of theory corresponds to 15 Hours lecturing and for practical course one credit corresponds to 30 Hours. For example, for a course of two credits 30 lectures of one hour duration are assigned, while that for a three credit course 45 lectures.

%%%%%%%%%