2	Moderate / Medium
3	Substantial / High

Assessment Rubrics:

- ▪ Quiz / Assignment/ Quiz/ Discussion / Seminar
- ▪ Midterm Exam
- ▪ Programming Assignments
- ▪ Final Exam

Mapping of COs to Assessment Rubrics:

	Internal Exam	**Assignment**	**Lab Assessment**	**End Semester Examination**
CO 1	✓		✓	✓
CO 2	✓	✓	✓	✓
CO 3	✓		✓	✓
CO 4	✓	✓	✓	✓

11. INTRODUCTION TO IT

Discipline	Computer Science				
Course Code	UK1MDCCSC101				
Course Title	INTRODUCTION TO IT				
Type of Course	MDC				
Semester	I				
Academic Level	1 -				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3	3 hours	-	-	3 hours
Pre-requisites	Basic knowledge about computers and Information Technology				

Course Summary	This course provides basic knowledge about Information technology and Computers.

Detailed Syllabus:

Module	Unit	Content	Hrs (L)
I		**Basic Ideas of Computer Technology**	9
	1	Introduction, Characteristics of a computer, Stored Programme Concept	
	2	Inside a computer: SMPS, Motherboard, BIOS, CMOS, Ports and Interfaces, Expansion Cards, Ribbon Cables	
	3	Computer Software and categories: System software, Application software	
	4	Terminology software: Firmware, Liveware, Public-domain software, Freeware, Shareware, Commercial software, Proprietary software, Semi-free software	
II		**Computer Hardware**	9
	5	CPU, Memory, Input devices, output devices. Memory units: RAM (SDRAM, DDR RAM, RDRAM etc. feature wise comparison only); ROM-different types: Flash memory;	
	6	Auxiliary storage: Magnetic devices, Optical Devices; Floppy, Hard disk, Memory stick, CD, DVD, CD-Writer;	
	7	Input devices - keyboard, mouse, scanner, speech input devices, digital camera, Touch screen, Joystick, Optical readers, bar code reader;	
	8	Output devices: Display device, size and resolution; CRT, LCD; Printers: Dotmatrix, Inkjet, Laser; Plotters, Sound cards & speaker.	
III		**Introduction to Software**	9
	9	System software, Application software	
	10	Operating systems, different types	
	11	Programming Languages, Compiler, Interpreter, Databases; Application softwares	

	12	Computer Viruses & Protection, Free software, open source.	
IV		**Networks and Internet**	**9**
	13	Connecting computers, Requirements for a network: Server, Workstation, switch, router	
	14	Network Types, Topologies	
	15	Internet: brief history, World Wide Web, Websites, URL, browsers, search engines, search tips	
	16	Internet Protocol- TCP/IP, FTP, HTTP	
	17	Electronic Mail	
V		**Flexi Module: Not included for End Semester Exams**	**9**
	18	Artificial Intelligence, IoT, Digital Twins, 3G, 4G, 5G	
	19	Block Chain, DLT, Biometric Authentication	
	20	Extended Reality – AR, VR, MR	
	21	Cyber Security Techniques, Cloud Computing Basics	

Textbooks and Materials

1. Vijayakumaran Nair K, Vinod Chandra S S," Informatics", PHI 2014

2. V.Rajaraman,"Introduction to Information Technology", PHI, Third Edition

3. Pradeep.K.Sinha, Priti Sinha, "Information Technology: Theory and Practice", Kindle Edition,

<u>**Course Outcomes**</u>

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Summarise the basic ideas of Computer Technologies	U	PSO-1

CO-2	Identify Computer Hardware components	U	PSO-1
CO-3	Explain the basics of Software	U	PSO-1
CO-4	Discuss the tools and applications of Network	U	PSO-1

R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create

Note: 1 or 2 COs/module

Name of the Course: Credits: 4:0:0 (Lecture: Tutorial: Practical)

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/Tutorial (T)	Practical (P)
CO-1	Summarise the basic ideas of Computer Technologies	PSO-1 PO-6, 7	U	F, C	L	-
CO-2	Identify Computer Hardware components	PSO-1 PO-6, 7	U	F, C	L	-
CO-3	Explain the basics of Software	PSO-1 PO-5, 6, 7	U	F, C	L	-
CO-4	Discuss the tools and applications of Network	PSO-1 PO-5, 6, 7	U	F, C	L	-

F-Factual, C- Conceptual, P-Procedural, M-Metacognitive

Mapping of COs with PSOs and POs :

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4
CO 1	-	-	-	-	-	1	1	-	1	-	-	-
CO 2	-	-	-	-	-	1	1	-	2	-	-	-
CO 3	-	-	-	-	2	1	2	-	3	-	-	-
CO 4	-	-	-	-	2	2	2	-	3	-	-	-

Correlation Levels:

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

Assessment Rubrics:

- ▪ Quiz / Assignment/ Quiz/ Discussion / Seminar
- ▪ Midterm Exam
- ▪ Programming Assignments
- ▪ Final Exam

Mapping of COs to Assessment Rubrics:

	Internal Exam	Assignment	Seminar	End Semester Examinations
CO 1	✓			✓