



Ganpat University
॥ विद्यया समाजोत्कर्षः ॥

Faculty of
Computer Applications



Programme	B.Sc. IT Honours (Artificial Intelligence & Machine Learning)			Branch	Computer Applications			
Semester	II			Version	1.0.0.0			
Effective from Academic Year	2026-27			Effective for the batch Admitted in	June 2026			
Subject code	U82E6IT		Subject Name	INFORMATION TECHNOLOGY				
Teaching scheme				Examination scheme(Marks)				
(Per week)	Lecture (DT)		Practical (Lab.)		Total	CCE	SEE	Total
	L	TU	P	T W				
Credit	2	-	-	-	2	Theory 25	25	50
Hours	2	-	-	-	2			

Objective:

Students will be able to

- Understand the number systems and different types of codes.
- Get the knowledge about computer generations, language and processor
- Get the knowledge about operating system

Pre-requisites:

- Basic knowledge about Computer

Learning Outcome:

Name of CO	Description
CO1	Students are adept at exploring the intricacies of the binary number system.
CO2	Enhance the knowledge about different Computer accessories.
CO3	Explore the fundamentals of operating systems.
CO4	Learn about the different kinds of communication devices.
CO5	Gain knowledge about computer generation and processor.

Mapping of CO and PO:

COS	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	1	0	0	0	0	0	0	0	0	0
CO2	3	1	1	0	1	0	0	0	0	1	1	0
CO3	3	1	1	1	1	0	2	1	1	0	1	0
CO4	3	1	1	1	1	0	1	1	1	0	1	0
CO5	3	1	1	1	1	0	1	1	0	0	1	0

Content:

Unit	Content	Hrs.
1	Data Representation and Number System: Introduction to Decimal, Binary, Octal, Hexadecimal number systems, Conversation of number from one number system to another number System, Binary Arithmetic: Addition, Subtraction (Simple method, using 1's And 2's Complement method), Multiplication, Division (Simple method and using Register method)	06
2	Introduction to the Computer and Computer Peripherals: Introduction to Computer Generation: Digital computer, mini, micro, mainframe, super Hybrid, Block Diagram of computer, Input Devices, Output Devices, Storage Devices.	06
3	Introduction and Installation of Operating System: Introduction of operating system, functionality of operating system and key features of various operating systems. Hardware & software requirements for operating system installation, steps to install various operating systems, Installation of OS through ghost image Introduction of Linux, Computer Booting Process, and installation of drivers.	06
4	Introduction to Communication Devices: Port Introduction: USB, Serial, Parallel, PS2, MIDI, HDMI, VGA. Other Input Methods: OMR, MICR, OCR, Communication Devices: MODEM, NIC, Computer Data and Information, Biometric. Communication Methods: Programmed I/O, Interrupts, DMA	06
5	Introduction to Generation languages and Processor: Language Processor: Compilers, Interpreter, Assemblers, generation and types of Languages: Low level languages, High level languages, Machine Language, Assembly Language and Next generation language, Introduction to Web Technology: Scripting languages	06
Reference Books:		
1	O' Level Simple: Information Technology by Satish Kumar-BPB Publications	
2	Fundamentals of computer by V.Rajaraman-PHI Publications.	
3	Structure computer Organization by Andrew S. Tanenbaum-PHI Publications.	
4	Information Technology Concepts by Dr. Madhulika Jain, shashank Jain, satishjain-BPB Publications.	
Web Reference:		
1	https://www.academia.edu/34887670/Unit_1_Information_Technology_Notes , Dec 2015	
MOOC/Certificate Course:		
1	https://www.coursera.org/articles/free-it-certifications	
Question Paper Scheme:		
<p>End Semester Examination Duration: (1 Hour Theory Examination)</p> <p>Note for Examiner: -</p> <p>Q-1 Any one out of Two (05 Marks)</p> <p>Q-2 Any one out of Two (05 Marks)</p> <p>Q-3 Any one out of Two (05 Marks)</p> <p>Q-4 Any one out of Two (05 Marks)</p> <p>Q-5 Any one out of Two (05 Marks)</p> <p>*The question paper must comprehensively address all Course Outcomes (COs), align with Bloom's Taxonomy levels, and ensure complete syllabus coverage.</p>		