GANPAT UNIVERSITY

FACULTY OF COMPUTER APPLICATON

Programme	B. Sc. IT (Hons.)	Branch/Spec.	Computer Applications
Semester	III	Version	1.0.0.0
Effective from Academic Year	2025-26	Effective for the batch Admitted in	June 2024
Subject code	U23A3DT1	Subject Name	Application Development Tool-I

Teaching scheme						Examination scheme (Marks)			
(Per week)	Lecture(DT)		Practical(Lab.)		Total		CE	SEE	Total
	L	TU	P	TW					
Credit	2	0	2	-	04	Theory	50	50	100
Hours	2	0	4	-	06				

Objective:

Student will learn python programming, functional and configurations of Odoo modules.

Pre-requisites:

Basic Computer knowledge, Basic XML.

Course Outcomes:

C01	They will learn problem solving and logic development using python programming language
C02	They will gain knowledge of object oriented concepts, data structures of python, exception handling using pyhon programming.
C03	They will gain knowledge of open source ERP system Odoo and learn how install and run Odoo on Windows Machine., using various pre-configured odoo modules like Sales, CRM, eCommerce and website.
C04	They will learn to create database in Odoo, learn to develop basic Odoo Module.

	Mapping of CO and PO											
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	2	2	3	0	3	0	0	0	3	3
CO2	3	3	2	3	3	0	3	0	0	0	3	3
CO3	1	1	2	2	3	0	3	1	1	0	3	3
CO4	2	3	3	3	3	0	3	1	0	0	3	3

Theory syllabus		
Unit	Content	Hrs
1	**Introducing Python-1** Python Introduction, Features of Python, **The Basics:** Literal Constants, Numbers, Strings, Variables, Identifier Naming, Data Types, Objects, Logical and Physical Lines, Indentation, **Operators and Expressions:, Control Flow statements:** if, while loop, for loop, break, continue, **String,** Functions(User Defined)	**07**
2	**Introducing Python-2** **Modules**: Introduction, The from..import statement, Creating your own Modules, **Data Structures:** List, Tuple, Dictionary, Sequences, **Object-Oriented Programming:** classes, objects, The Self, object Methods, The __init__method, Class and Object Variables, Inheritance, polymorphism, **Exceptions:** Errors, Handling Exceptions, Raising Exceptions, Using Finally	**08**
3	**Odoo Installation and Odoo Apps(Module):** Installing Odoo (Community version) on local machine, Odoo directory structure (Module structure), Creating a Database, Manage Users, **Odoo Apps**: Sales, CRM, eCommerce, Website	**07**
4	**Configuring and Building an Odoo Module:** Build an Odoo Module, Basic Views: Tree View / Form View / Search View, Relations between models, Model Inheritance, ORM API	**08**
Practical content:		
List of programs specified by the subject teacher based on above mentioned topics		
Text Books:		
1	Fundamental of Python: First Programs by Kenneth A. Lambert, Course Technology, Cengage Learning	
2	ERP Demystified, Second Edition By Alexis Leon, Pub:Tata McGraw Hill Education Pvt. Ltd.	
Reference Books:		
1	A Byte of Python By Swaroop C H	
2	Introduction to Programming using Python, by Y. DANIEL LIANG, PUB:PEARSON	
Web References / MOOC / Certification Course		
1	https://www.odoo.com/documentation/	
2	https://nptel.ac.in/courses/106106145	
3	https://www.odoo.com/education/odoo-online	
4	https://www.odoo.com/slides/all	
Question Paper Scheme:		
	University Examination Duration: 2 Hours **Note for Examiner:** Q-1 Must be common from any topics from the syllabus. Q-2 and onwards must be from specific topics and internal choice or option can be given. **Paper Structure:** Q-1 Must be from all Unit Any Five out of seven **(25 Marks)** [CO1, CO2, CO3, CO4] Q-2 Must be from Unit 1: Any Two out of Three **(06 Marks)** [CO1] Q-3 Must be from Unit 2: Only one question without any option **(05 Marks)** [CO2] Q-4 Must be from Unit 3: Any Two out of Three **(08 Marks)** [CO3] Q-5 Must be from Unit 4: Any Two out of Three **(06 Marks)** [CO4]	