FACULTY OF ENGINEERING & TECHNOLOGY

SYLLABUS

FOR

DIPLOMA COURSE IN COMPUTER APPLICATIONS
(FULL TIME)

(SEMESTER – I & II)
(Credit Based Evaluation and Grading System)

SESSION: 2019-20

GURU NANAK DEV UNIVERSITY, AMRITSAR

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DIPLOMA COURSE IN COMPUTER APPLICATIONS (FULL TIME)
(Credit Based Evaluation and Grading System)

S.No.	Course Code	Course	L	T	P	Credits
		Semester-I				
1	CTL101	Information Technology and Operating System	4	0	1	5
2	CTL102	PC Computing–I	4	0	1	5
		Total	**8**	**0**	**2**	**10**

DIPLOMA COURSE IN COMPUTER APPLICATIONS (FULL TIME)
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CTL101: Information Technology and Operating System

Time : 3 Hours	**L**	**T**	**P**
	4	**0**	**1**

Mid Term Examination : 20 % Weightage
End Term Examination : 80 % Weightage

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Section–A

Information Concepts and Processing
      Evolution of Information Processing
      Data Information Language
      Communication and Network
      Client Server Systems
      Computer Networks
      LAN & WAN

Section–B

Internet
      Understanding the Internet
      E–mail Basics
      Browsing the Web
      Finding Stuff on the Web and Net

Elements of a Computer Processing System
      Hardware – CPU
      Storage Devices and Media
      VDU
      Input – Output

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Section–C

Data Communication Equipment
Software–System Software, Application Software

Programming Languages
       Classification
       Machine Code
       Assembly Language
       Higher Level Languages
       Fourth Generation languages

Section–D

Operating System
       What is Operating System–Evolution of OS
       Types of Operating System
       A)   Single User Systems
       B)   Multi User Systems : Unix, XENIX, VAX/VMS

Booting a System

Recommended Book:
V.K. Jain : Fundamentals of Information Technology

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CTL-102 : PC Computing–I

Time : 3 Hours	**L**	**T**	**P**
	4	**0**	**1**

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Section–A

Introduction to windows
1.1   Origin of windows

a)   **Parts of Windows Screen (Definition)**
-        The Desktop, the taskbar
-        Start Menu
-        The windows
-        Icons

b)   **Types of windows**
-        Application Windows
-        Document Windows

c)   **Anatomy of a window**
-        The title bar
-        Minimize and Maximize buttons
-        The control box
-        Scroll bars, scroll buttons and scroll boxes
-        About my computer icon
-        About the networking neighbourhood icon
-        Recycle bin
-        Folders – creation and definition
-        Windows explorer (definition)
-        Shortcut icons with creation and definition

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Section–B

Introduction to MS–Office
Introduction to Word (Word for Windows)

1. Introduction to Word
2. Introduction to Parts of a Word Window (Title bar, Menu bar, Tool bar, the Ruler, Status area)
3. Creating new document
4. Opening an existing document
5. To insert a second document into an open document
6. Editing a document
7. Deleting text, replacing text, moving and copying text
8. Page setup
9. Margins and gutters
10. Changing fonts and front size
11. To make text bold, italic or underline
12. Line spacing
13. Centering, right alignment and left alignment
14. Page breaks

Section–C

15. Headers and footers
16. Putting page numbers in headers and footers
17. Saving documents
    - naming word document
    - saving in different formats
    - saving on different disks
18. Spell checker
19. Printing
20. Creating a table using the table menu
    - entering and editing text in tables
    - selecting in tables
    - adding rows
    - changing row heights
    - deleting rows
    - inserting columns
    - changing columns and cell width
21. Borders and shading
22. Templates and wizards
23. Working the graphics
24. Drawing objects
25. Using frames, position objects
26. Mail merge
27. Using word and word documents with other applications

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Section–D

MS–POWER POINT
1. Introduction to Ms Power Point
2. Power Point Elements
   - Templates
   - Wizards
   - Views
   - Color Schemes
3. Exploring Power Point Menu
   - Opening and Closing Menus
   - Working with Dialog Boxes
4. Adding text, adding title, moving text area, resizing text boxes, adding art.
5. Starting a new slide
6. Starting a Slide show
7. Saving Presentation
8. Printing Slides
9. Views
   – Slide View, Slide sorter view, notes view, outline view
10. Formatting and enhancing text formatting
    a) Formatting
    - Changing format with a new layout
    - Using a pick look wizards to change format
    - Alignment of Text
    - Working with text spacing
    b) Enhancing
    - Using Bullets
    - Changing text font and size
    - Selecting text style, effect and color
    - Picking up and applying styles
11. Creating Graphs
12. Displaying slide show and adding multi–media

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S.No.	Course Code	Course	L	T	P	Credits
Semester-II						
1	CTL151	Database Management System	4	0	1	5
2	CTL152	PC Computing–II	4	0	1	5
\multicolumn{3}{c}{**Total**}	**8**	**0**	**2**	**10**

DIPLOMA COURSE IN COMPUTER APPLICATIONS (FULL TIME)
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Paper–I
CTL151 : Database Management Systems

Time : 3 Hours

	L	T	P
	4	0	1

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End Term Examination : 80 % Weightage

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Section–A
Introduction to Database Management System, Components of DBMS, E.R. Diagrams, Data Models, Hierarchical Model, Network Model and Relational Model.

Section–B
Concept of Database Security, Protection, Integrity, Recovery, Concurrency. Idea of Distributed Databases, Knowledge Base/Expert Systems
ORACLE 10g:
SQI. *PLUS
　　Introduction to Oracle **10g**
　　SQL– DOL, DML, DCL

Section–C

ORACLE 10g:
SQI. *PLUS
　　Join methods & Sub query, Union, Intersection, Minus, Tree Walking
　　Built in Functions, Views, Security amongst users, Sequences, Indexing Object
　　Oriented Features of Oracle **10g**

Section–D
PL/SQL
　　Introduction to PL/SQL
　　Cursors– Implicit & Explicit
　　Procedures, Functions & Packages
　　Database Triggers
Recommended Book :
C.J. Date : Data Base Management Systems

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Paper–II
CTL152 : PC Computing–II

Time : 3 Hours	**L**	**T**	**P**
	4	**0**	**1**

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Section–A

MS–EXCEL
a) Introduction to Worksheet/Spreadsheets
b) Creating a simple Worksheet
c) Computations in a Worksheet

Section–B

MS–EXCEL
a) Printing the Worksheet
b) Graphs
c) What if Analysis (Data Sort, Fill, Query, Filter)

Section–C

MS Access
Introduction, Understanding Databases, Creating Tables, Queries.

Section–D
MS Access
Forms Reports, Adding graphs to your report.