

B.Sc. Semester – I

Subject: Computer Science
Open Elective Course (OEC-1)
(OEC for other students)

OEC-1: Title of the Course : **FUNDAMENTALS OF COMPUTER CONCEPTS**

Course No.	Type of Course	Theory / Practical	Credits	Instruction hour per week	Total No. of Lectures/Hours / Semester	Duration of Exam	Formative Assessment Marks	Summative Assessment Marks	Total Marks
OEC-1	OEC	Theory	03	03	42 hrs	2hrs	40	60	100

Course Outcome (CO):

After completion of course, students will be able to:

- CO 1** : Understanding the basic concepts Computer.
- CO 2** : Paperless environment.
- CO 3** : To develop word processor abilities of students.
- CO 4** : To develop numerical abilities of students using electronic spread sheet.
- CO 5** : To acquire practical skills related to Presentation Software.

Syllabus- OEC: Title- FUNDAMENTALS OF COMPUTER CONCEPTS	Total Hrs: 42
Unit-I	14 hrs
Introduction To Computer: Definition of Computer, History, Characteristics of Computer, Basic Applications of Computer, Components of Computer System: Central Processing Unit: Keyboard, mouse and VDU, Input devices, Output devices, Computer Memory, Concept of Hardware and Software, Application Software, Systems software, Programming Languages, Representation of Data/Information, Concept of Data processing, Multimedia and Entertainment, Introduction to Operating System: Definition, Basics of popular operating systems: Windows & Linux, User Interface: Task Bar, Icons, Start Menu, Running an Application, Changing System Date And Time, Changing Display Properties, To Add Or Remove A Windows Component, Changing Mouse Properties, Adding and removing Printers, File and Directory Management, Types of files.	
Unit-II	14 hrs
Word Processors: Definition of Word Processing, Examples of Word Processors, Opening Word Processing Package, Menu Bar, Using the Help, Using the Icons below Menu Bar, Opening and closing Documents, Save and Save As, Page Setup, Print Preview, Printing of Documents, Text Creation and manipulation, Document Creation, Editing Text, Text Selection, Cut, Copy and Paste, Font and Size selection, Alignment of Text, Formatting the Text, Paragraph, Indenting, Bullets and Numbering, Changing case, Table Manipulation, Draw Table, Changing cell width and height, Alignment of Text in cell, Delete / Insertion of row and column, Border and shading, Short-cut keys wherever applicable.	

Unit-III	14 hrs
<p>Electronic Spreadsheet: Elements of Electronic Spread Sheet, Examples of Electronic Spreadsheets, Workbook Vs Worksheet, Opening of Spread Sheet, Addressing of Cells, Printing of Spread Sheet, Saving Workbooks, Manipulation of Cells, Entering Text, Numbers and Dates, Creating Text, Number and Date Series, Editing worksheet Data, Inserting and Deleting Rows, Column, Changing Cell Height and Width, Using Formulas, Function, Charts, Short-cut keys wherever applicable.</p> <p>Presentation Software: Opening A PowerPoint Presentation, Saving A Presentation, Creation of Presentation, Creating a Presentation, Using a Template, Creating a Blank Presentation, Entering and Editing Text, Inserting And Deleting Slides in a Presentation, Preparation of Slides, Inserting Word Table or An Excel Worksheet, Adding Clip Art Pictures, Inserting Other Objects, Resizing and Scaling an Object, Enhancing Text Presentation:</p>	

Books recommended.

Text Books

1. Computer Fundamentals - P K Sinha, BPB Publications.

References

1. Fundamentals of Computers, M. Abid, M. Amjad, Willey
2. Computer Fundamentals, D.P. Nagpal, S.Chand.

B.A. Semester –I

Subject: Computer Application

Open Elective Course (OEC-1)
(OEC for other students)

OEC-1: Title of the Course :IT Fundamentals

Course No.	Type of Course	Theory / Practical	Credits	Instruction hour per week	Total No. of Lectures/Hours / Semester	Duration of Exam	Formative Assessment Marks	Summative Assessment Marks	Total Marks
OEC-1	OEC	Theory	03	03	42 hrs	2hrs	40	60	100

Course Outcome (CO):

After completion of course, students will be able to:

- CO 1** :Familiarize with various devices of computer.
- CO 2** : Learn fundamental concepts of databases.
- CO 3** : Focuses on network and internet application.
- CO 4** : Know the use of computers in education and research.

Syllabus- OEC: IT Fundamentals	Total Hrs: 42
Unit-I	14 hrs
<p>Introduction: Introduction to logical organization of computer, input and output devices (with connections and practical demo), keyboard, mouse, joystick, scanner, OCR, OMR, monitor, printer, plotter, primary memory, secondary memory, auxiliary memory.</p> <p>User Interface: Operating system as user interface, system tools, utility programs.</p> <p>Database: Introduction to database, relational data model, Entity types, entity set, attribute and key, relationships, relation types, SQL queries: select, from, where, order.</p>	
Unit-II	14 hrs
<p>Networks: Definition of network, classification of network, LAN MAN, WAN, distinction among the networks, Guided Media: Twisted pair, Coaxial cable, and Optical fiber. Unguided media: Microwave, Radio frequency propagation, Satellite,</p> <p>LAN Topologies: Ring, bus, star, mesh and tree topologies.</p>	
Unit-III	14 hrs
<p>Internet Applications: Internet as a global network, Search Engine Online education Internet utilities - email online banking, reservations etc.</p> <p>Use of Computers in Education and Research: Data analysis, Heterogeneous storage. e-Library, Google Scholar, Domain specific packages such as SPSS, Mathematica etc.</p>	

Books recommended.

1. A Goel, Computer Fundamentals. Pearson Education, 2010,
2. P. Aksoy, L. DeNardis, Introduction to Information Technology, Cengage Learning, 2006
3. P K Sinha, P Sinha, Fundamentals of Computers, BPB Publishers, 2007