

**ALLAMA IQBAL OPEN UNIVERSITY, ISLAMABAD**  
**(Department of Computer Science)**

**WARNING**

1. **PLAGIARISM OR HIRING OF GHOST WRITER(S) FOR SOLVING THE ASSIGNMENT(S) WILL DEBAR THE STUDENT FROM AWARD OF DEGREE/CERTIFICATE, IF FOUND AT ANY STAGE.**
2. **SUBMITTING ASSIGNMENTS BORROWED OR STOLEN FROM OTHER(S) AS ONE'S OWN WILL BE PENALIZED AS DEFINED IN "AIOU PLAGIARISM POLICY".**

**Course: Introduction to Computer Concepts (3576)**

**Level: Postgraduate**

**Semester: Spring, 2014**

**Total Marks: 100**

**Pass Marks: 40**

**ASSIGNMENT No. 1**

**(Units 1-4)**

**Note: All questions are compulsory. Each question carries equal marks.**

- Q.1 a) Explain main categories of optical laser disks. Describe at least two applications where rewritable optical laser disks would be preferred over hard disks for storage.
- b) Differentiate between SDRAM technology and nonvolatile memory technology.
- Q.2 a) What do you mean by a programming language? What are the main types of programming languages? Discuss at least three languages in detail.
- b) What do you mean by a computer virus? What are the main types of computer viruses that harm software and hardware?
- Q.3 a) Compare the information processing capabilities of human beings to those of computers with respect to speed, accuracy, reliability, consistency and memory capability.
- b) What is the relationship between the operating system, system software and application software? What are their main objectives?
- Q.4 a) What do you know about ASCII, Extended ASCII and ANSI encoding schemes? What are their major characteristics?
- b) What is the major difference between Serial and Parallel data transmission? Explain with the help of diagram.

- Q.5 a) Write note on computer buses available on the motherboard of general purpose PC system.
- b) For a given computer, which type of memory would have the greatest capacity to store data and programs: Cache or RAM? RAM or Registers? Registers or Cache?

## **ASSIGNMENT No. 2**

**(Units 5-8)**

**Total Marks: 100**

**Pass Marks: 40**

**Note: All questions are compulsory. Each question carries equal marks.**

- Q.1 a) Describe the function of word processing software.
- b) What are the frequently used word processing features? Explain how they are different from older versions?
- Q.2 a) Explain with the help of a diagram the four basic steps involved in speech recognition.
- b) What is the meant by windows? Differentiate windows and non-windows applications. What are the three types of windows?
- Q.3 a) What do you mean by point and draw devices? List and describe them briefly.
- b) Which type of OCR scanner is designed to read documents of varying sizes?
- Q.4 a) Give examples of the three types of entries that can be made in a spreadsheet.
- b) Give an example of each of the four types of ranges.
- Q.5 a) All commercial spreadsheet packages manipulate row and columns of data in a similar manner. What makes one spreadsheet package more desirable than another?
- b) Define relationship between a field, a record and the structure of a database.

## **3576 (Old 3422) Introduction of Computer concepts**

**Book Recommended: Computers, by Larry Long, Nancy Lang, 6<sup>th</sup> Edition**

### **Course Outline:**

#### **Unit 1 Computers and Processors**

- a) Definition, Characteristics, History and Types of Computer
- b) Computer Organization

#### **Unit 2 Bus, Processor, and Pc Platform**

- a) Bus, Port, Pc Platforms
- b) The Processor Characteristics (Word Size, Processor Speed, Ram Capacity)

#### **Unit 3 Basics of Digital Computer**

- a) Number System, Basics of Logic Gates
- b) Basics of Boolean Algebra

#### **Unit 4 Data Processing, Storage, and I-O Devices**

- a) Data Processing Techniques
- b) Data Storage (Bit, Byte, Ram, Rom, Cache Memory, and Secondary Storage)
- c) Input Devices
  - 1. Keyboard and its types, Point and Draw Devices
  - 2. Scanner, Digital Camera, Speech Recognition System and Multimedia
- d) Output Devices
  - 1. Monitor (Graphic Adopter, Size, Resolution and Types of Monitors)
  - 2. Printers and Types (Dot Matrix, Ink Jet, and Laser), Plotter (Raster & Pen)
  - 3. Presentation Graphics and Special Function Terminal (ATMs, POSS)

#### **Unit 5 Software**

- a) Types of Software, Windows Introduction, Understanding Windows Help
- b) The Desktop, Types of Windows (Application, Document, and Dialog)
- c) Elements of an Application Windows
- d) Understanding Folders, Copying, Deleting, and Moving Files

**Unit 6 Programming Concepts**

- a) Programming Languages, Main Components of Program
- b) Simple Program Construction, Program Exercises in any High Level Language

**Unit 7 Word Processing (Ms Word)**

- a) Basic Concepts and Features, Creating, Saving, Editing, Formatting
- b) Printing Documents, Working on Multiple Documents

**Unit 8 Electronic Spreadsheet (Ms Excel)**

- a) Basic Concepts and Features, Creating, Saving Excel Sheet, Editing The Sheet
- b) Managing Formula, Formatting and Printing the Sheet, Working on Workbook

**Unit 9 Basics of Internet Usage**

- a) Introduction, World Wide Web and Web Sites
- b) Introduction to Internet Based Services, and Use of Email